

CHAPTER FOUR

REGIONAL DISTRIBUTION OF INDUSTRIES IN GUJARAT AND POLICY CHANGES

4.1 Introduction

Planning for the industrialisation in the country and the State during the initial plan periods was directed not only toward accelerating growth of output and employment but also at achieving certain socio-economic objectives such as, regional dispersal of industries, promotion of village and small industries, prevention of monopolies and concentration of economic power.

Gujarat, until it became a separate state in 1960, had industries concentrated in the cities of Ahmadabad, Rajkot, Surat and Vadodara. The factories were mostly related to textile, gems and machine tools. The major economic activities around the urban centres in the State were trading and merchandise of the products exported and imported from its numerous ports. The State had good trade network in both the hinterland of India as well as the countries off the coasts in Middle East, Europe and Africa. The pre-Independent India had Sindh as important port nearest to Gujarat along with Surat, though the latter had declined after increased trade through Mumbai.

4.1 Industrial Development: Policy Perspective

The industrialisation phase for the State started taking shape during second and third plan periods, i.e. from 1957-58 to 1964-65. Huge amount of investments were made during the fourth plan in the public sector units involving the State for the development and distribution of industries. The investment through the State intervention continued until the late 1980s. The following section gives the brief outline of various initiatives aimed at industrialisation of the State.

4.1.1 Industries in Backward Area

Industries in India in general are regulated by The Industrial (Development and Regulation) Act under which the licenses are issued to owners of industries to manufacture

items mentioned in its Schedule under the Act. This was major planned intervention for industrialisation by the Government of India till 1991. In between 1961-1984 (until sixth plan period), policy changes were made to decentralize the industrial investment in backward areas identified by the Government of India (GoI), in terms of various categories. The industrialisation strategy (*Decentralisation, 1976*) was implemented for achieving the balanced regional development of industries in developed and backward regions by providing financial and other stimulus package. Even then, until mid-1980s, industrial development was concentrated mostly in and around the large metropolitan cities (GoI, 1985)⁹⁶.

Gujarat, until 1985 had well developed industrial pockets like Ahmadabad, Surat, Vadodara, Vapi etcetera, but 58 per cent of the districts in the State were industrially backward. The State was considered industrially advanced in western India along with Maharashtra, which could attract industrial investment. During this period, the districts of Panchmahals, Bharuch and Surendranagar were covered under Category B (Central Investment Subsidy), whereas the districts of Amreli, Banaskantha, Bhavnagar, Junagadh, Kachchh, Mehsana and Sabarkantha were under Category C (Concessional Finance). The industries, as per Industrial Policy, were expected to invest in these regions to get the Government concession and subsidy.⁹⁷

During the early 1980s, In accordance with the policy initiatives of Government of India, the State Government charted and initiated a growth plan for industrial investment in the backward areas by planning industrial estates. This was also associated with tax concessions, subsidised loan and provision of land in the identified clusters for industrial investment. Such prospects allowed industries to invest in Saurashtra and Kachchh in north Gujarat. The concentration of industries in central and south Gujarat is evident due to natural advantages where specialised industrial clusters and estates were established, especially in Mehsana, Ahmadabad, Anand, Bharuch and Valsad districts.

4.1.2 Financial and Institutional Support

India introduced changes in its industrial policy mainly after the economic reforms in 1991 after pursuing an import substitution strategy since 1960s. Industrial development in Gujarat entered into high growth phase after the New Economic Policy in 1991, which

⁹⁶ Govt. of India, (1985): *Study of Regional Industrial Variation (1972-77 & 1978-83)*, TCPO, Ministry of Works and Housing, New Delhi.

⁹⁷ Ibid, p.4

opened new opportunities for domestic and foreign investments. A new industrial policy by the State in 1995, titled ‘Gujarat 2000 AD and Beyond’, aimed at diversification of the industrial sector specially through manufacture of garments (including hosiery), gems and jewellery, agro-processing (except edible oil seeds), food processing, leather products, ancillary engineering and export oriented units. The policy provided for incentives like, capital investments and cash subsidies to the eligible small-scale units⁹⁸.

4.1.3 Support Infrastructure Development

Considering tax concessions and subsidies do not work in the absence of necessary infrastructure; development of infrastructure was assigned high priority. The Gujarat Infrastructure Development Board (GIDB) was set up in 1995 to facilitate the private sector investment in the infrastructure sector and to act as a coordinator among various agencies involved in the development of infrastructure projects in the State. The development of necessary infrastructure helped in industrialising the new areas of the State such as, Dahej, Kachchh, Valsad and the districts of Saurashtra.

The Industrial Policy in 2003 aimed at achieving Global competitiveness by the industries, emphasised on restructuring of the District Industries Centres (DICs), renamed as District Industries Development Centres (DIDCs). DIDCs across the State acted as nodal centres for industries and investors, which also coordinated for the other line departments such as Labour, Energy, Environment, Revenue, GIDC, Gujarat Industrial Investment Corporation (GIIC) etcetera. Besides this, the Government initiated the steps to monitor the implementation of investment proposals, development of industrial clusters and subsidies for R&D activities.

The GoG announced another industrial policy in 2009, which focused on holistic development, which meant the socio-economic growth rather than only industrial growth. The new industrial policy emphasised on investment, which was required to increase employment opportunities and improve product quality. The policy focused on the growth of Small and Medium Enterprises (SMEs), development of Special Investment Regions (SIRs), establishment of mega industrial projects, like automobile components, semiconductors, Nano Technology, Air Craft Maintenance, Ship building etcetera. The policy also stated that

⁹⁸ Govt. of Gujarat (1996): “New Industrial Policy – 1995”, Policy Paper, PDF, General Administration Department, Gandhinagar, accessed from www.gujaratindia.com

GoG would provide support for the product improvement to establish the 'Made in Gujarat' brand in the international market.⁹⁹

4.1.4 Investment Summits (2003-2011)

Since the 1990s, the State could invite the largest investment in private petrochemical refinery. It had also generated investment interests in the automobile sector and a little foreign investment was foreseen. During the post-2002, the State Government initiated a step towards being proactive in attracting investment through institutionalised approach; attracting Foreign Direct Investment (FDI). At each investor summits, the State presented important data to the prospective investors, which projected Gujarat as *Ideal Investment Destination*. The investor's summit held in 2003 coincided with the *Navratri* festival, while the subsequent summits held in 2005, 2007, 2009, 2011 and 2013 coincided with the *Uttarayan* festival. The value of investment proposals during the various summits increased from Rs.68,254 crores in 2003 to Rs.1,06,160 crores in 2005, Rs. 4,61,835 crores in 2007, Rs. 12,39,562 crores in 2009, Rs. 20,64,046 crores in 2011 and Rs. 1,60,000 crores in 2013 summit. However, the FDI is very slow which is reflected in actual implementation data of the projects post investor summits. (See Table 4.1)

Table: 4.1
Investment Proposed at the Vibrant Gujarat Global Investors' Summits (2003-2011)

Summit	Number of IEM/MOUs	Proposed Investment (Rs. Crore)	Project Implemented		Per centage to Proposed Investment	Project Under Implementation		Per centage to Proposed Investment
			Nos.	Investment		Nos	Investment	
Sep-Oct 2003	76	68,254	40	36,696.00	53.76	7	11,760.00	17.23
Jan 2005	227	1,06,160	112	32,628.84	30.73	26	33,642.90	31.69
Jan 2007	363	4,61,835	149	1,01,441.34	21.96	161	1,86,116.06	40.30
Jan 2009	8,660	12,39,562	543	9,901.46	0.79	1,238	2,59,220.63	20.91
Jan 2011	3,993	20,64,046	NA	29,815*	15.00	NA	NA	NA
Source: Socio-Economic Review, Gujarat, 2009-10, P.23, www.ourvibrantgujarat.com , *DNA News, 7 th April 2012, NA (Not Available)								

⁹⁹ GoG (2009): *Industrial Policy -2009*, General Administration Department, Gandhinagar, PDF Document

In Foreign Direct Investment (FDI) the other states in India has lead the MoUs during 2006-10, Gujarat signed MoUs worth Rs. 5.35 lakh crores with potential of 6.47 lakh jobs. But during the same period Maharashtra and Tamilnadu with Rs. 4.20 lakh crore and Rs. 1.63 lakh crore worth MoUs, expect about 8.63 lakh and 13.61 lakh jobs. Similarly, Chhattisgarh and Odisha was signed MoUs worth 3.61 lakh crore and 2.99 lakh crore without creating much hyped event in Gujarat.¹⁰⁰

Table 4.2
Industrial Policy/Approach in Gujarat through periods

Period	Period Highlights	Industry Type	GIDC Estates/ Factories SEZ/EPZ/ SIR	Industrial Growth Rate*	Employment	Industrial Location - Outcome
Pre Independence (Before 1947)	Private Industrial Houses British Control Lacks Enterprises					Ahmedabad Vadodara Surat
Post Independence (1947-60)	Bombay State	Textile	3,469 (Factory, 1960)		3,46,462 (Factory, 1960)	Ahmedabad Vadodara Surat Rajkot
Phase-I (1961-1971)	Public Sector Industries Promotion of SSI units through decentralisation of Industries Lack of Private		5,544 (Factory, 1970)	3.04 % (1960-61 to 1970-71)	43,7554 (Factory, 1970)	Ahmedabad Vadodara Surat Rajkot Bhavnagar

¹⁰⁰Times of India, *Telling a Wrong Story by, Dipankar Gupta*, Oct 6, 2011, 12.00 AM IST, Refer Online Article

	Sector Investment					
Phase-II (1971-1984)	Growth of SSI and Medium Scale units	SSI GIDC Large and Medium Ind. In Machine Tools, Chemicals, Pharma-Petrochemicals, Electrical	13,067 (Factory, 1985) 72,479 (SSI,1985)	4% annually (1976-1980-81)+ 5.5% manufacturing Sector (1971-1981)	6,63,614 (Factory, 1985)	
Phase – III (1985-90)	Entry of Large Scale Units Decline in Public Sector Investment Entry barriers for FDI Investments Slow inclusion of Modernisation and Reform	L&M Chemical, Pharma and Petrochemicals	14,513 (Factory, 1990) 1,15,384 (SSI,1990)	8.73 % (1981-1991)	7,47,569 (Factory, 1990)	
Phase-IV (1991-2002)	Accelerated Reforms and Structural Adjustments FDI investments Deregularization of Certain Industrial Groups Industrial Sickness - SSI	IT/ITES/S TPI Machine Tools Chemical	19,661 (Factory, 2002), 2,74,315 (SSI,2002)	11.81% (1991-96) growth in Manufacturing 8.6 % (1991-92 to 2003-04)	8,15,,462 (Factory, 2002)	

Phase V (2003-2010)	Entry of Large Scale diverse product groups	L&M Ind. SEZ/SIR	23,942 (Factory, 2008),		11,75,091 (Factory, 2008)	
	Increased Bilateral Trade	SEZ SIR	312782 (SSI,2006)			
	Decline of SSI and Cottage Industry	GIDC				
	Increase in SME in Private Sector					
	Services Industry					
	Industrial Policy					
	Vibrant Gujarat					
Source: GOG, Socio-Economic Report, Vibrant Gujarat Documents (2003-2012)						

4.2 Changes in Industrial Growth (1960-2008)

The annual industrial growth rate of a mere 3.2 per cent in 1960 to 1971 increased to 8.6 per cent in 2004. The policy focus since 1991 has contributed towards industrial growth mainly through investment in industries under the private sector. During the early 1990s, the decline and problems associated with the slow industrial sector was due to controlled industrial development, which was later liberalised to provide sufficient growth momentum to the industries. The State has benefitted from the Foreign Direct Investment (FDI), contributing to the State and national industrial productions. The increase in the investment climate in the State is also due to various industrial policies since 1991 that attracted industries to the State. Although the State achieved remarkable growth in industries, industrial development does not encompass the backward regions, either due to lack of infrastructure or due to poor backing of the industries.

The average number of workers in the factory reduced from 94.9 persons in 1960, 78.92 in 1970, 59.55 in 1980, 51.51 in 1990, 44.78 in 1995 and 42.44 in 2000. It however, started to increase to 42.99 in 2003, 44.16 in 2005 and 49.08 workers per factory in 2008.

This shows the changing characters of factories in the State as well as the labour intensive character of the industries during the last decade.

4.2.1 Growth in Factory Sector

The number of working factories in Gujarat was 3.6 thousand and employees were 3.46 lakh in 1960. This went up respectively to 22.4 thousand and 12.57 lakh in 2005. The number working factories increased about five times and number of employees doubled during the last four and half decades. The growth in the number of factories was faster between 1970 to 1980. (Table: 4.3)

Table: 4.3
Number of Registered Factories and Workers

Year	Working Factories	Employees	Per Factory Workers	Growth in Factories (in %)
1960	3,649	3,46,462	94.95	-
1970	5,544	4,37,554	78.92	51.93
1980	10,674	6,35,684	56.55	92.53
1990	14,513	7,47,569	51.51	35.97
2000	20,424	8,66,720	42.44	40.73
2005	22,155	9,78,257	44.16	8.48
2010	22,453	12,57,957	51.44	28.59
Source: Socio Economic Review-2005-06, 2010-11				

The number of manufacturing industries increased since 1991, and reached the 14.1 thousand mark in 1990-2000. Average employment did not report any change between 1985-86 and 1999-2000. It is worth mentioning here that the average investment increased faster but average output decreased. Growth rate of investment and output of these industries was higher during post-liberalization period.

Table: 4.4
Production and Employment of Manufacturing Industries*

Year	Factories No	Total Employment (No.)	Average Employment (No.)	Total Investment (lakh Rs.)	Average Investment (lakh Rs.)	Total Output (lakh Rs.)	Average Output (lakh Rs.)
1985-86	10,010	602,717	60.21	669030	11,111	1245354	112.08
1990-91	10,693	624,168	58.37	1459560	25,005	2530045	101.18
1995-96	13,419	814,860	60.72	5263959	86,686	7039796	81.21
1999-00	14,098	788,575	55.94	8744298	156329	11627031	74.38
2004-05	13,535	978,257	44.16	8787000	143890	26044900	65.98
2008-09	14860	1,126,000	51.44	17230100	178935	50807100	40.38
Growth Rate (Percentage)							
Pre-liberalization							
1985-86 to 1990-91	1.11	0.58	-3.06	13.88	14.47	12.54	-9.73
Post-liberalization							
1990-91 to 1995-96	5.10	6.11	0.81	52.13	49.33	35.65	-3.95
1990-91 to 99-00	1.01	5.27	-1.57	13.22	16.07	13.03	-1.68
1999-2000 to 2004-05	-0.80	4.81	-4.21	0.10	-1.59	24.80	-2.26
2004-05 to 2008-09	1.96	3.02	3.30	19.22	4.87	19.02	-7.76
<i>Source: Statistical Abstract-Gujarat various issues, 1985-86 to 2008-09* Values as Mentioned in Reports</i>							

4.2.2 Regional Distribution

Gujarat has succeeded in providing wide regional industrial base after its formation, when most of the major industrial development had concentrated in the cities like, Ahmadabad, Vadodara, Surat and Rajkot. At present, almost all districts except The Dangs¹⁰¹ have industrial units in varying proportion, representing the extent of industrialisation in the State. The regional distribution of the industries is the result of extensive spread of the industrial estates developed by the Gujarat Industrial Development Corporation (GIDC). The institutions in the State helped the industries to provide term finance, assistance to purchase raw materials, plant and machinery, and marketing of products. However, the State had tried

¹⁰¹ The Dangs district does not have industrial estates or areas other than village and cottage industries.

to develop industrial estates in the backward regions through various initiatives but it failed to generate industrial investment in the last two decades.

4.3 Progress of Gujarat Industrial Development Corporation (GIDC)

GIDC has been contributing significantly in the development of industrial estates and sheds in the State. There were only 57 industrial estates and 843 allotted sheds with 49.11 hectares of allotted plots in 1970-71. The number of estates increased to 265 and allotted plots to 13.16 thousand hectares in 2001-02. The number of sheds allotted was 12.19 thousand in the same year.

Table 4.5
Progress of Gujarat Industrial Development Corporation (1970-2010)

	Land acquired		At the end of the Year			
	During Year (Hect.)	End of Year (Hect.)	Industrial Estates (No.)	Plot Allotted (Hect.)	No. of Sheds Allotted	Average Area of Sheds
1970-71	789	3,272	57	49.11	843	0.86
1980-81	2,199	14,886	130	298.59	6786	2.30
1990-91	228	24,161	185	6,947.66	11192	37.55
2001-02	342	24,868	265	13,162.26	12186	49.67
2009-10	8697	33,565	262	NA	NA	NA

Source: GOG, *Statistical Abstracts – Gujarat*, 1971-2010, NA=Not Available

4.3.1 Regional Distribution of GIDC

As per the latest data (2010), GIDC manages 248 sanctioned estates, out of which 182 are currently functional. Table 4.5 provides the details of the land acquired, developed and allotted in various estates of Gujarat. Although the largest number of estates exists in the Saurashtra and Kachchh region, the area under GIDC estates is largest in Central Gujarat, encompassing Anand, Kheda, Vadodara, Dahod, Panchmahals and Bharuch districts. As per the data available with Gujarat Infrastructure Development Board (GIDB, 2010)¹⁰², the *chemical* estates i.e. industrial estates with more hazardous industries, in Gujarat are located in Vapi (1,100 hect.), Panoli (900 hect.), Ankleshwar (1,600 hect.), Dahej (4,400 hect.), Jhagadia (1,700 hect.), Vilayat (1,000 hect.), Sachin (778 hect.), Pandesara (219 hect.), Naroda (367 hect.), Vatwa (527 hect.) and Petro-Chemical Complex, Vadodara (745 hect.).

¹⁰² GIDB, 2010, <http://www.gidb.org>, accessed in September 2010.

Table 4.6
Region-wise Land Utilization by GIDC Estates (Area in Hectares)

Estates	Ahmadabad & North Gujarat	Central Gujarat	South Gujarat	Saurashtra & Kachchh	Total
Total Sanctioned (No.)	56	57	32	103	248
Area	6,113	13,002	8,466	5,859	33,441
Developed (No.)	42	50	24	66	182
Area	2,677	12,749	5,005	2,247	22,679
Under Development (No.)	2	1	2	9	14
Area	101	252	10	1,888	2,254
Planning / LAQ Stage (No.)	12	6	6	28	52
Area	3,334		3,449	13,723	20,507

Source: http://www.gidb.org/gidb/cms.aspx?content_id=120 (Accessed on 28th Nov 2010)

GIDC remained one of the most important facilitators of development of Small and Medium scale industries in the specialised industrial clusters of State from 1960 to 2000. The Saurashtra region could have only half of the sanctioned GIDC estates in the region where as success was achieved in establishing GIDC estates in the rest of the State. However, the number of GIDC in Saurashtra is high but lacks the area coverage.

4.4 Regional Localisation of Industries

The early industrialization of the State in the 1960s was primarily in the industrial pockets of the major cities like Ahmadabad, Vadodara and Rajkot. It was here, where most of the skilled workforce, the markets and the resources were concentrated. However, due to overcrowding, increasingly higher land prices and lack of effluent disposal sites, these industries began looking for sites outside the city limits, and in the industrial estates, which were established by the State in its rural fringe.

The regional localisation of the industry in the State has been driven by both the choice of industry and locational factors like cost of transportation, availability of labour and raw material, and disposal of the finished goods particularly, in case of the large scale industries, as well as policy initiatives by the Government. The regional localisation of industry is presented in the following section through geographical analysis of location the State.

Location Quotient Analysis

A location quotient calculated using the equation

$$LQ_i = (A_i / \sum A_i) / (B_i / \sum B_i)$$

Where, A_i is equal to the level of the activity in area i and B_i is the level of the base.

Location quotients (LQ) can be interpreted using the following conventions:

-If $LQ > 1$, this indicates a relative concentration of the activity in area i , compared to the region as a whole.

-If $LQ = 1$, the area has a share of the activity in accordance with its share of the base.

-If $LQ < 1$, the area has less of a share of the activity than is more generally, or regionally, found. (Source: http://www.ehow.com/how_2244044_calculate-interpret-understand-location-quotient.html)

The Location Quotient is derived from the industrial data (depicting district and category-wise distribution for two years i.e. 1961 and 2007). This has been useful in ascertaining the changes in the concentration and localisation of different type of industries in the State.

The maps show significant shift in the resource and labour based industries in the State. The regional specialisation reflects resource base such as, mineral based, petrochemical, forest, leather and allied and textile industries. The diversification of industries such as, food processing, chemicals and metal-based industries from 1961 and 2007 reflects the availability of human resources and capital in the State. There has been shift and expansion of resource-based industries as well as capital-based industries.

The concentration of industries has shifted from the coastal districts of Saurashtra and eastern districts of mainland Gujarat. The regional specialisation has changed over the years and extended for leather and textile manufacturing; whereas the petrochemical and chemical industries have expanded to the mainland as well as in Kachchh and Saurashtra regions. This shows the impact of the industrial promotion of particular sector along with the metal-based industries. The extension of forest-based industries to non-forest areas in northern and central plains shows the utilisation of social forestry and imported raw material.

There are concerns on the high concentration of the industries in the districts surrounding the Ahmadabad district. This might cause immense pressure on the natural resources and might threaten the ecology of the region. The Surat and Valsad districts (including Navsari) have major presence of textile and chemical and allied industries.

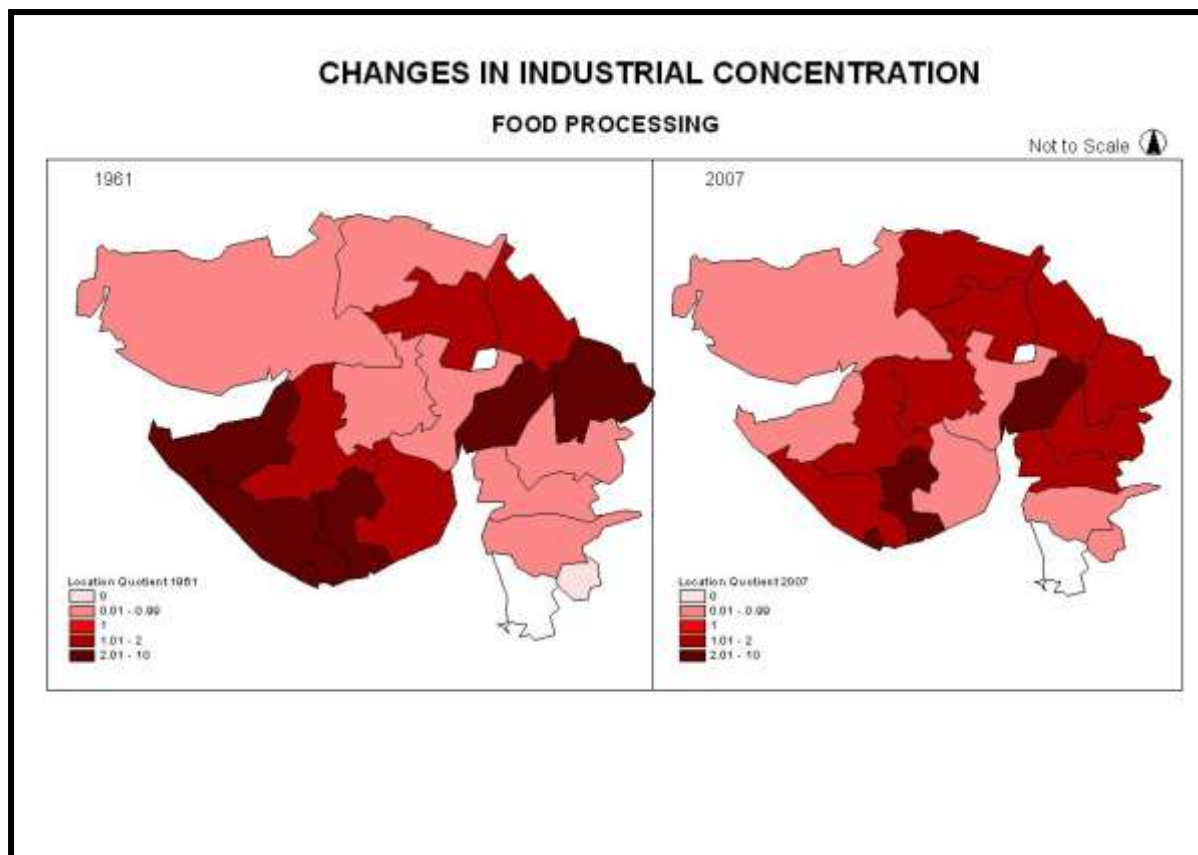


Figure 4.1: Changes in Industrial Concentration (1961-2007) – Food Processing

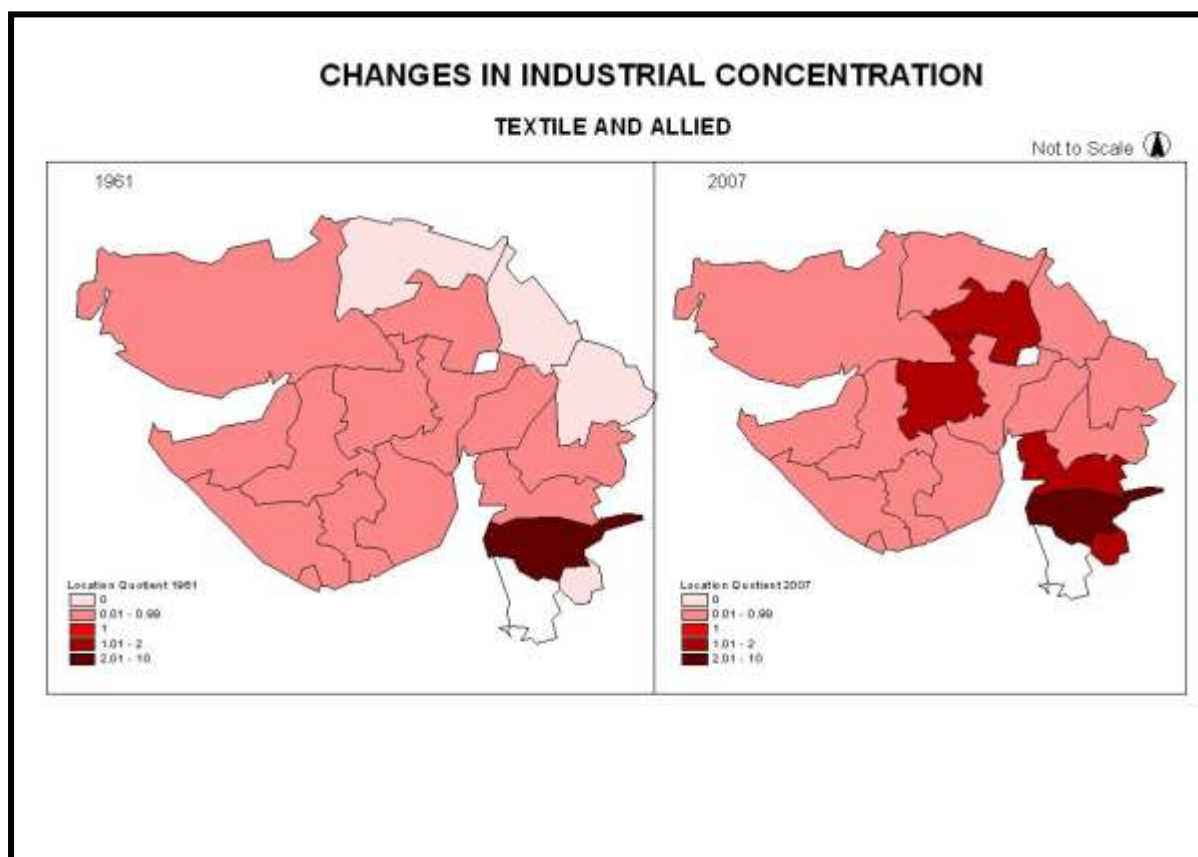


Figure 4.2: Changes in Industrial Concentration (1961-2007) – Textile and Allied

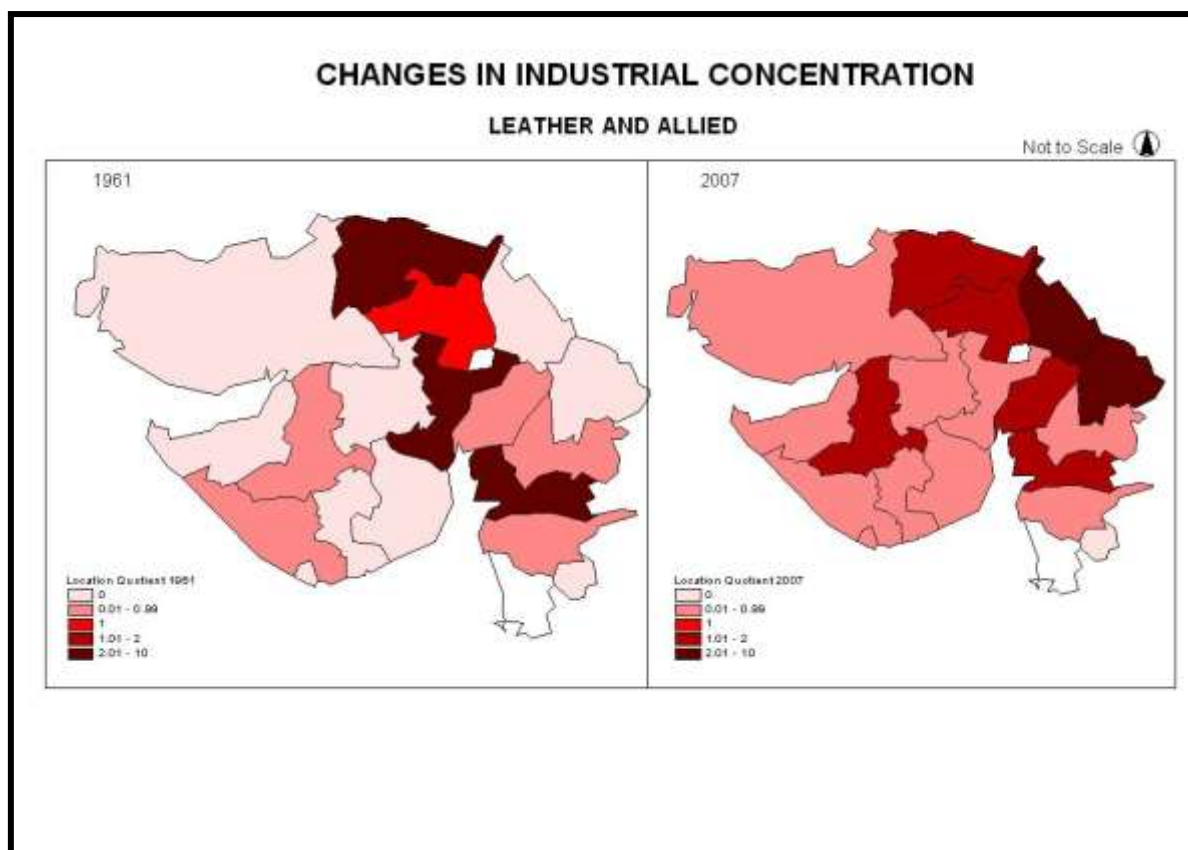


Figure 4.3: Changes in Industrial Concentration (1961-2007) – Leather and Allied

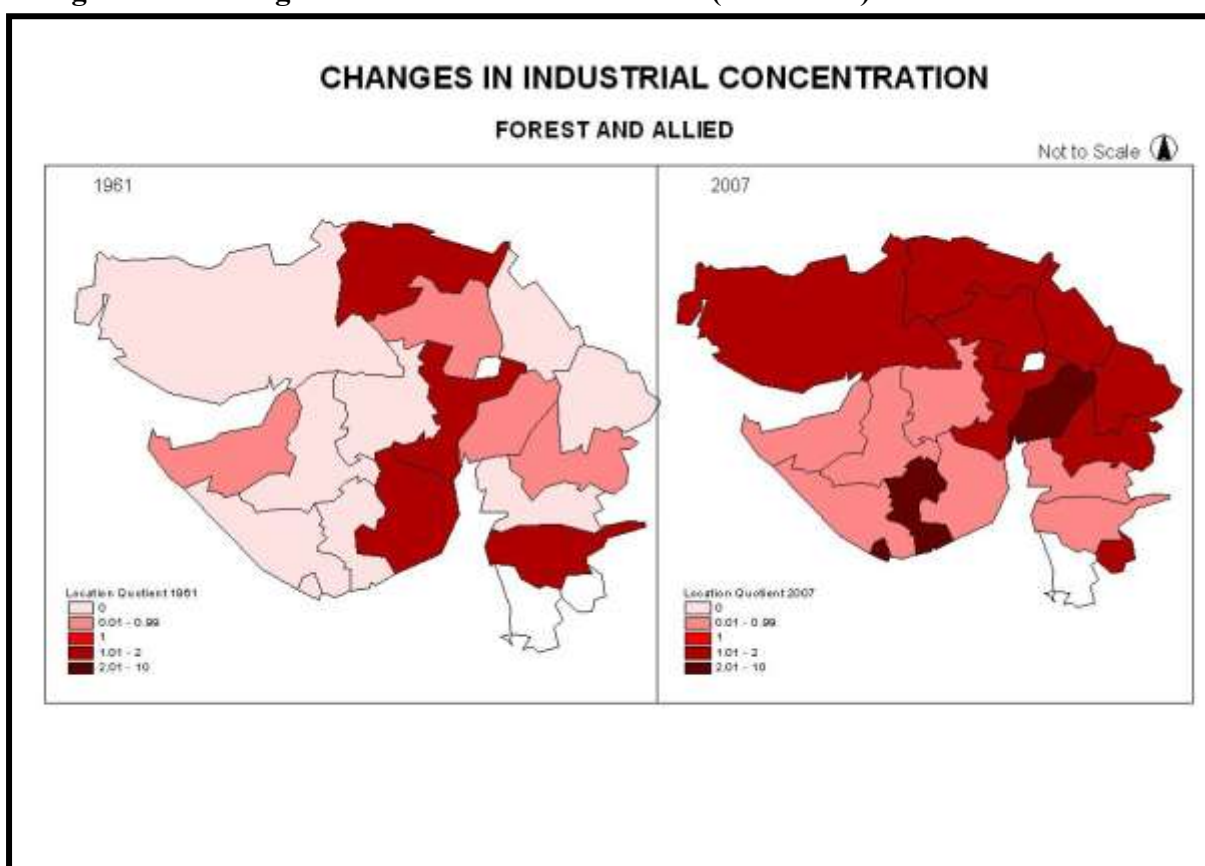


Figure 4.4: Changes in Industrial Concentration (1961-2007) – Forest and Allied

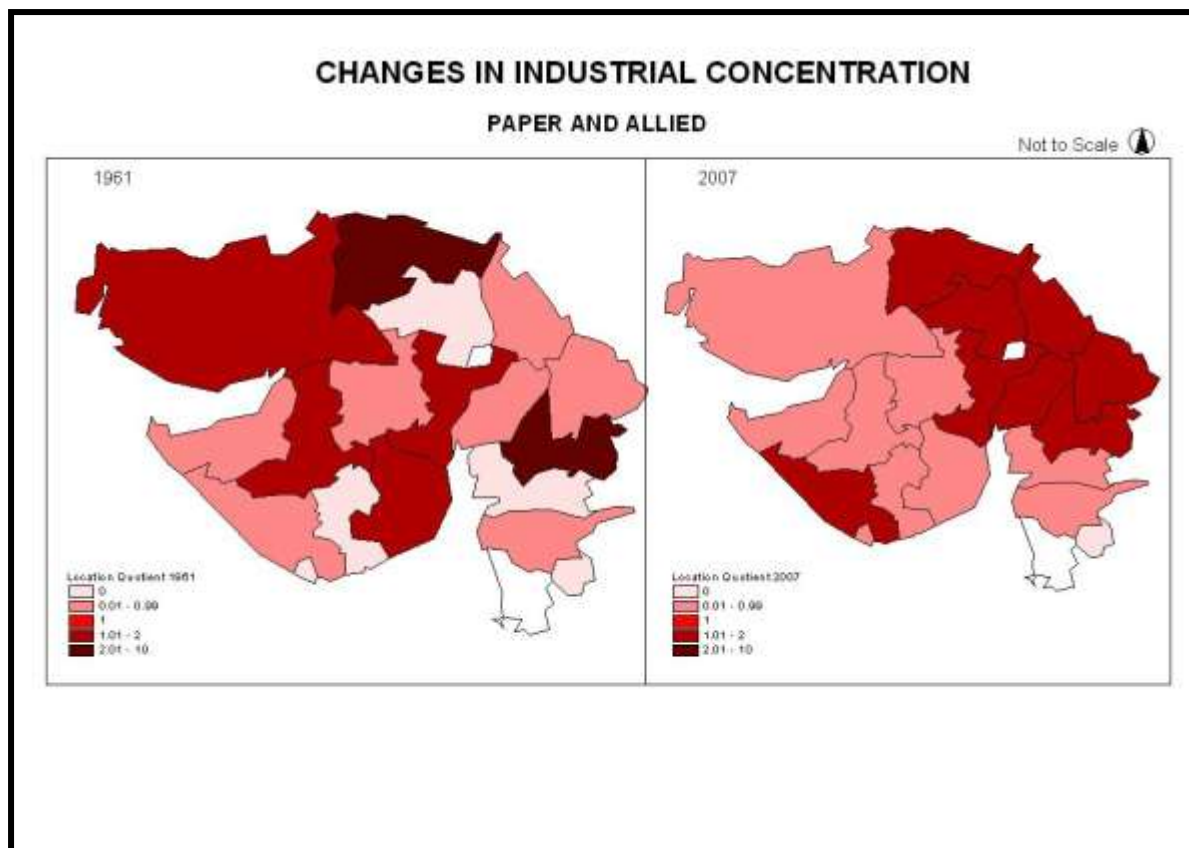


Figure 4.5: Changes in Industrial Concentration (1961-2007) – Paper and Allied

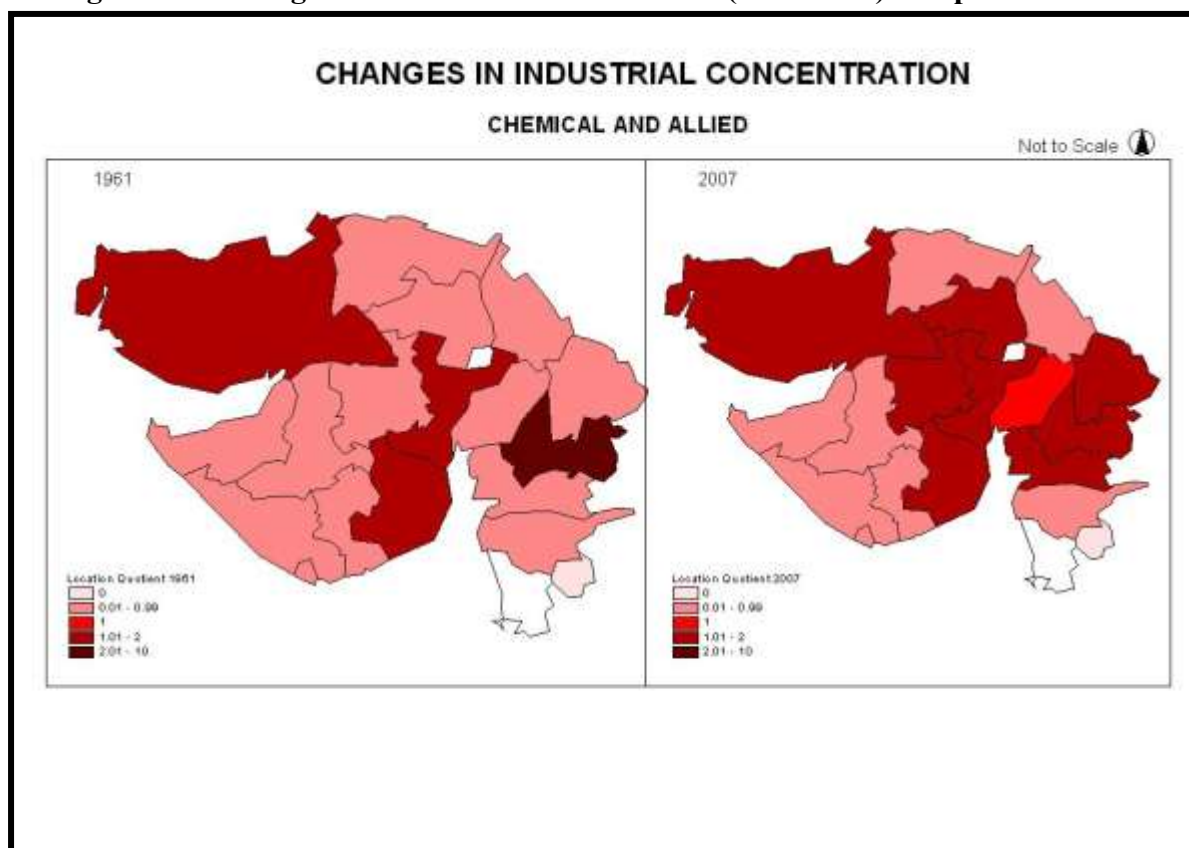


Figure 4.6: Changes in Industrial Concentration (1961-2007) – Chemical and Allied

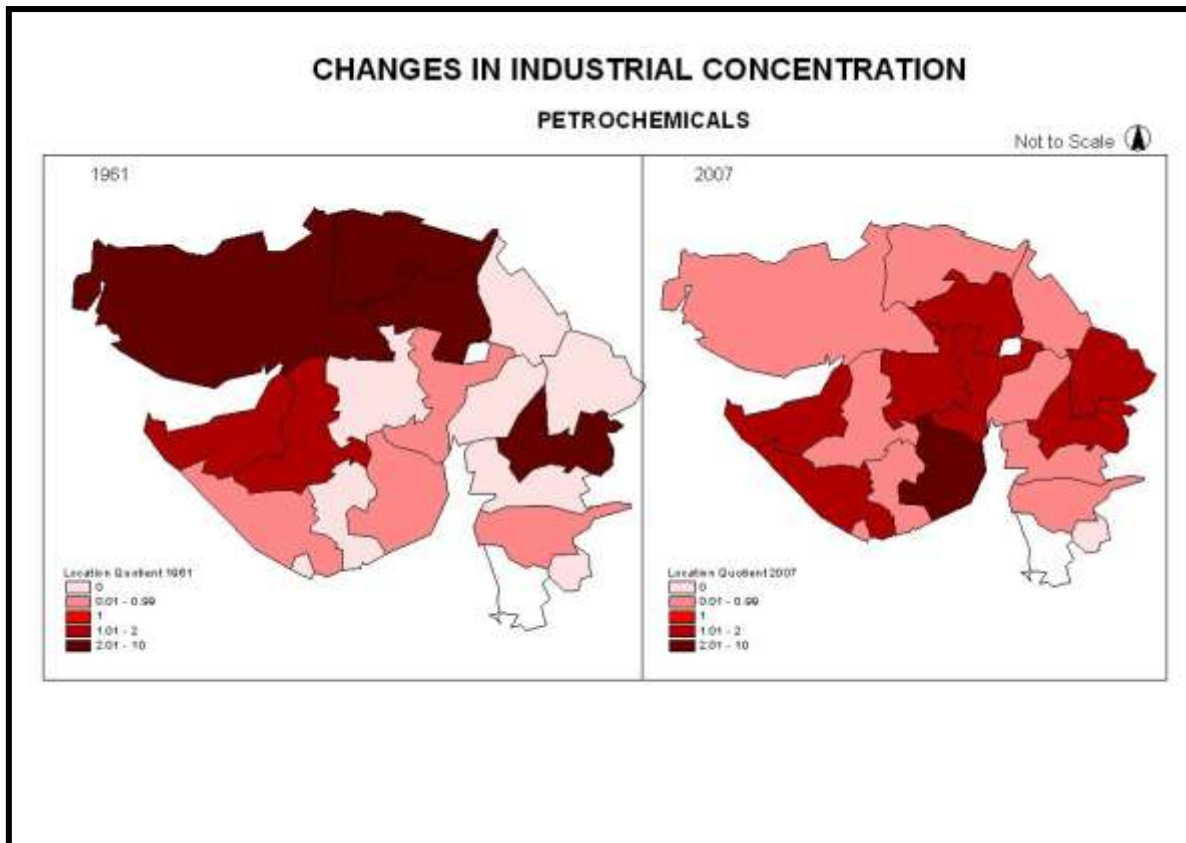


Figure 4.7: Changes in Industrial Concentration (1961-2007) – Petrochemicals

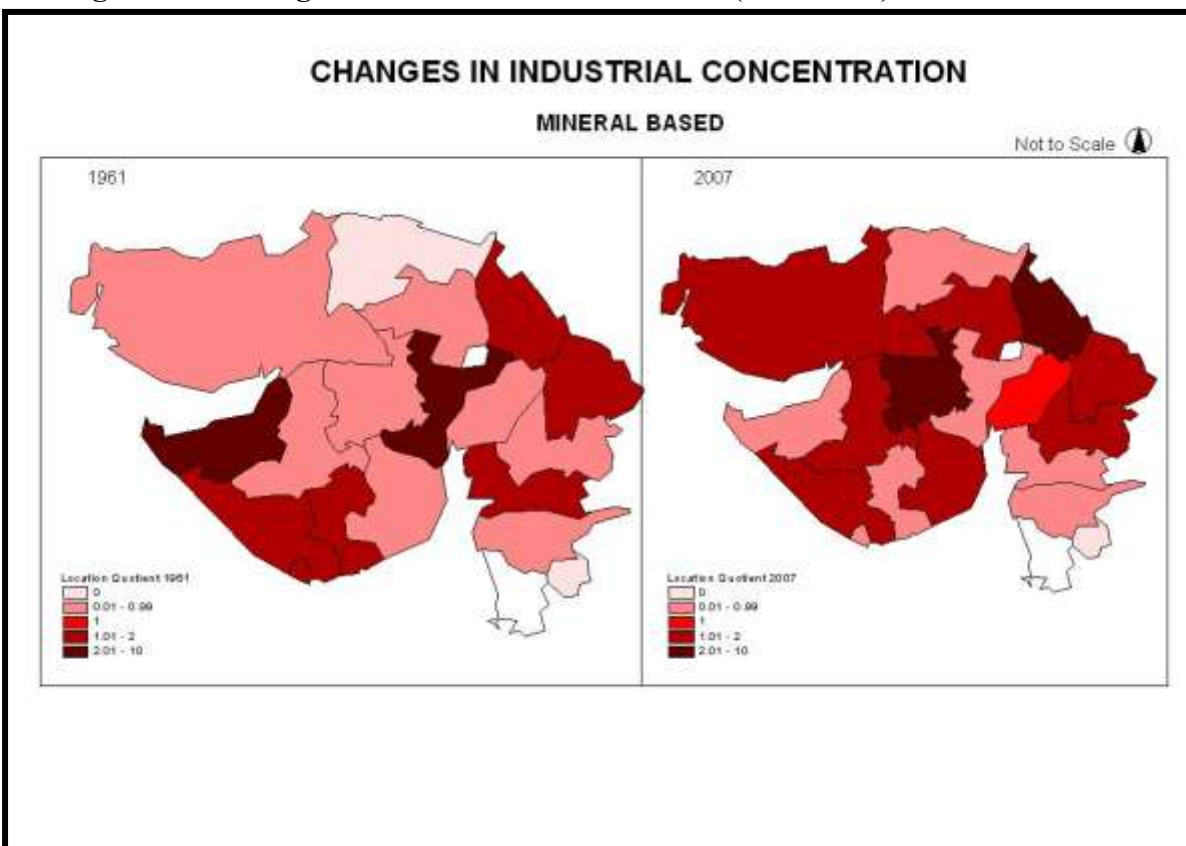


Figure 4.8: Changes in Industrial Concentration (1961-2007) – Mineral Based

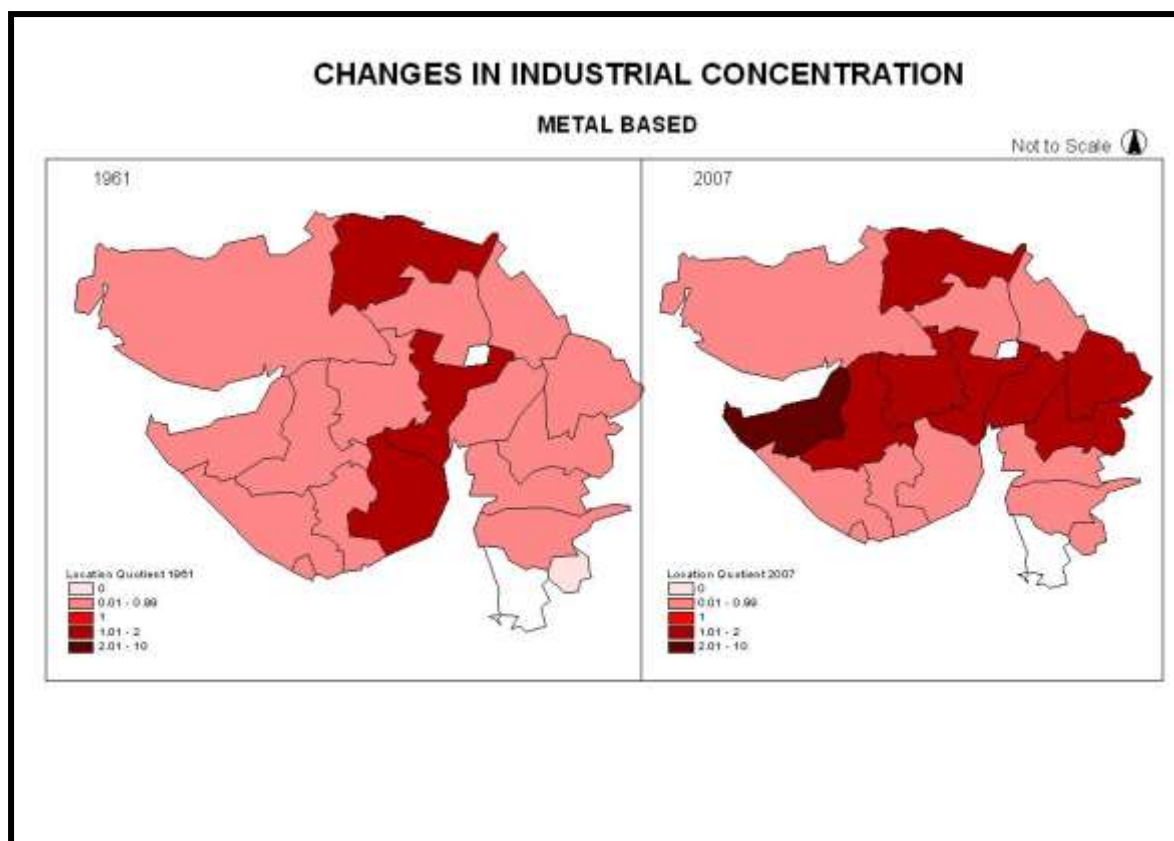


Figure 4.9: Changes in Industrial Concentration (1961-2007) – Metal Based

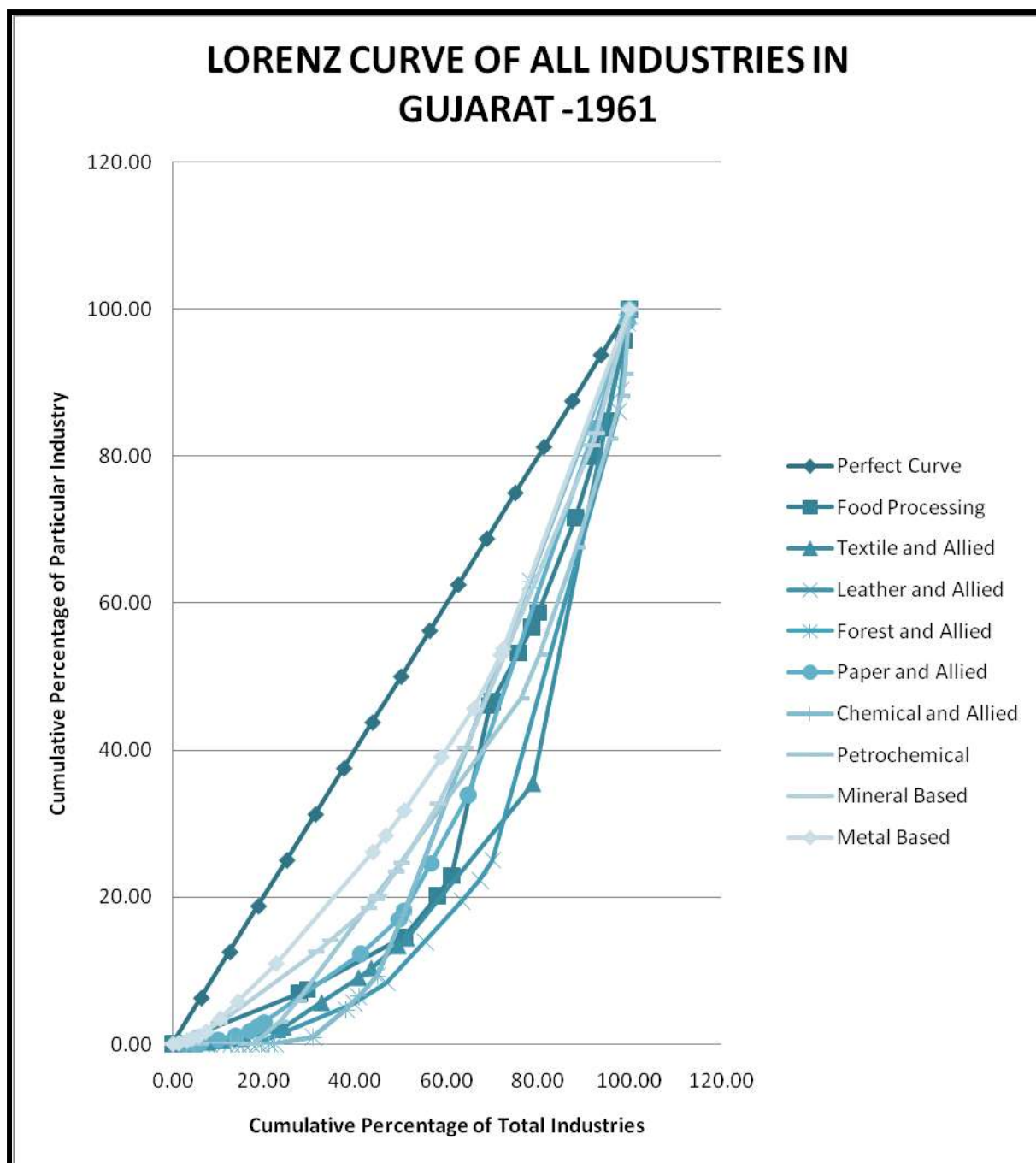


Figure 4.10: Concentration of Industries - 1961

Figure 4.10 depicts the concentration of industries for the year 1961, when industries were present in a few districts of the State. Excepting for the primary industries like food processing and mineral-based industries which show some diversification, most of the industries were concentrated in the districts of Ahmadabad, Surat, Vadodara and Rajkot. Thus, the industries were concentrated in specific regions leaving the districts in eastern and southern tribal regions of the State devoid of industrial presence. This reflects the lack of industrial infrastructure in majority of districts of the State.

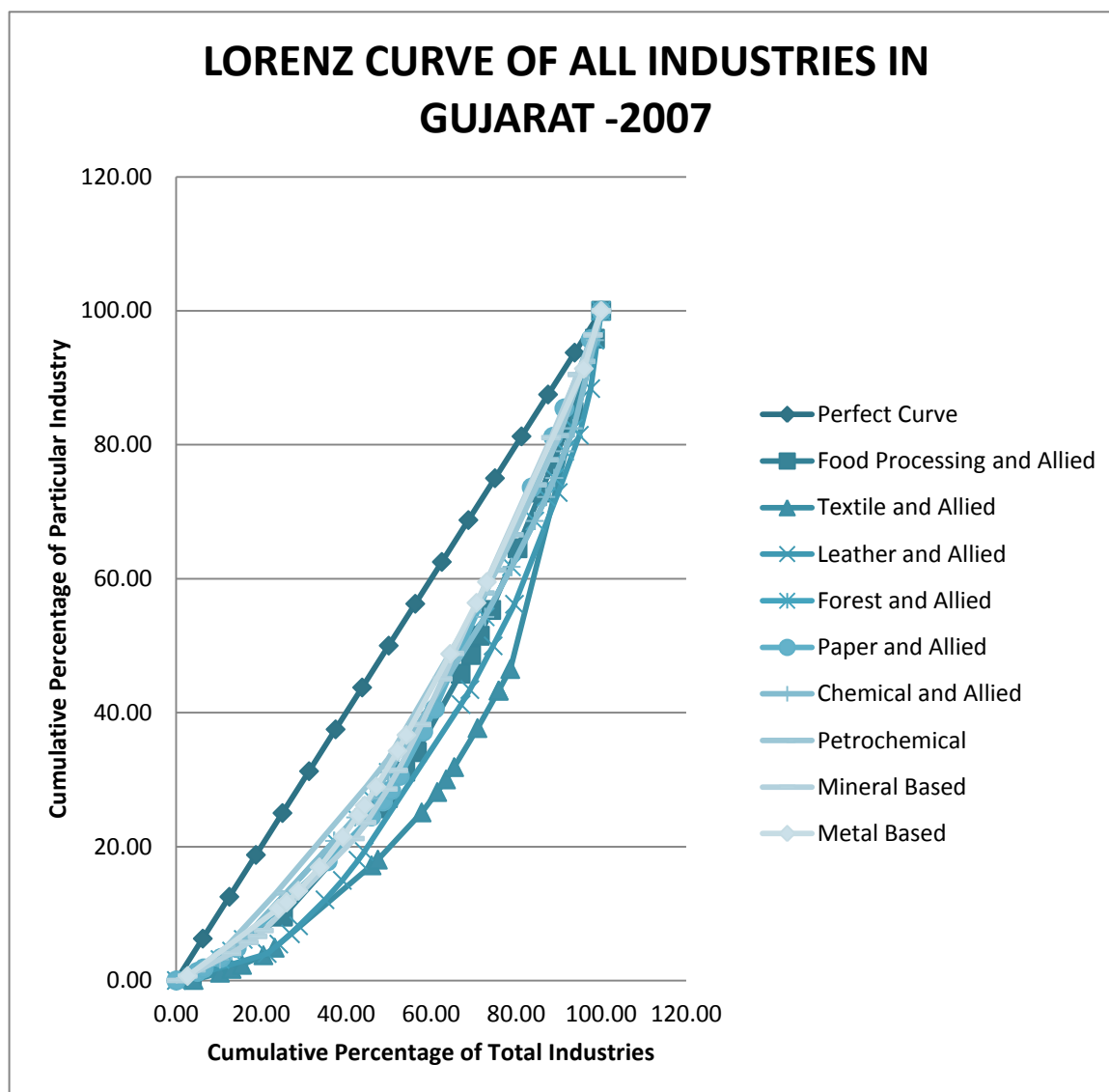


Figure 4.11: Concentration of Industries - 2007

The subsequent figure 4.11 for the year 2007 indicates that except for the resource based, like leather, textile and forest based industries; there was diversification of industries in the State. The above change in the diversification of industries during the period 1961-2007, may be ascribed to the industrial policy efforts of the State and the setting up of GIDC. The growth of industries across the districts may also be due to a shift in the economic base of State from agriculture to industry since its inception. For industries like chemical and metal based, the Government has created suitable infrastructure in the mainland as well in Saurashtra and Kachchh, which would further help in the expansion of this sector. The enhanced provision of port and road infrastructure over the last fifty years, have also contributed towards the growth of the industries in the State.

4.5 Medium and Large Scale Industries

District-wise numbers of units of medium and large industries, their fixed investment, and production, working persons are presented in table 4.7. The State had around 1.5 thousand functioning medium and large industries in 2000-01. Out of the total industries, more than 60 per cent were located in Surat (24.71 per cent), Ahmedabad (11.88 %), Vadodara (11.34 %), Valsad (9.71 %), Bharuch (8.85 %) and Gandhinagar (5.7 %) districts. Similarly, these districts had about 63 per cent and 53 per cent share in total fixed investment and total production respectively. Jamnagar district alone accounted for nearly one-fourth (22.12 %) of the total fixed investment and one-third (32.96 %) of the total medium and small industrial production in the State. Industrially, Surat is also a leading district of Gujarat and its share in total fixed investment was 21.75 per cent and about 17 per cent in total production. Table 4.7 shows that in the districts of Kutch, Jamnagar and Ahmadabad more than 60 per cent of the workers are skilled workers.

Table 4.7
District-Wise Functioning in Medium and Large Industries (2000-01) (2010-11)

No.	District	Units (No.)	% Share	Fixed Investment (Lakh Rs.)	% Share	Production (Lakh Rs.)	% Share	Total Workers (No.)	Skilled Workers (No.)	% Share
1	Surat	388	24.71	2,109,487	21.75	1,812,286	16.65	54,514	29,038	53.27
2	Ahmedabad	186	11.85	6,92,966	7.14	5,75,283	5.29	62,192	37,487	60.28
3	Vadodara	178	11.34	1,255,322	12.94	1499112	13.78	78084	39541	50.64
4	Valsad	153	9.75	3,58,360	3.69	5,03,184	4.62	22,524	11,850	52.61
5	Bharuch	139	8.85	1,444,824	14.90	1,113,113	10.23	32,554	15,929	48.93
6	Gandhinagar	90	5.73	2,88,320	2.97	2,87,864	2.65	15,318	7,177	46.85
7	Mehsana	66	4.20	2,03,126	2.09	3,35,330	3.08	14,388	5,993	41.65
8	Panchmahals	63	4.01	1,00,738	1.04	1,02,138	0.94	9,935	4,737	47.68
9	Rajkot	60	3.82	45,872	0.47	97,650	0.90	12,390	5,412	43.68
10	Bhavnagar	46	2.93	1,32,521	1.37	43,932	0.40	4,838	2,359	48.76
11	Junagadh	28	1.78	2,99,511	3.09	1,91,774	1.76	12,746	5,669	44.48
12	Anand	27	1.72	64,468	0.66	1,15,184	1.06	7,891	4,176	52.92
13	Kutch	26	1.66	47,094	0.49	1,71,695	1.58	5,124	3,328	64.95
14	Jamnagar	24	1.53	2,145,678	22.12	3,586,933	32.96	11,440	6,921	60.50
15	Navsari	22	1.40	40,402	0.42	55,422	0.51	7,803	4,190	53.70
16	Kheda	15	0.96	62,776	0.65	47,364	0.44	6,720	3,347	49.81
17	Sabarkantha	12	0.76	26,881	0.28	50,605	0.47	3,403	1,228	36.09
18	Surendranagar	12	0.76	99,484	1.03	43,701	0.40	3,860	1,817	47.07
19	Other districts	35	2.23	2,82,060	2.91	2,49,577	2.29	13,470	6,910	51.30
	Gujarat	1570	100.00	9,699,890	100.00	10,882,147	100.00	3,79,194	1,97,109	51.98

Source: Census of Industrial Unit, 1999-2000, Industries in Gujarat: Statistical Information, 2007, Gandhinagar (pdf document), Industries Commissionerate, Gandhinagar

4.5.1 Employment in Large and Medium Industries

As per the latest estimates (2007)¹⁰³ large and medium industries employs 3.79 lakh workers, of which more than half are skilled workers. It records that majority of investments and employments are in Surat, Ahmedabad, Vadodara, Bharuch, Gandhinagar and Mehsana districts of the main land Gujarat. Rajkot, Jamnagar and Junagadh districts in Saurashtra recorded employment above 10,000 persons each in large and medium industries.

According to Socio-Economic Report (2009-10)¹⁰⁴, the number of working registered factories in the State has increased from 23,308 at the end of the year 2007(P) to 23,942 at the end of the year 2008(P). The average daily employment in the working factories has also increased from 10.93 lakh at the end of the year 2007(P) to 11.75 lakh at the end of the year 2008(P).

4.5.2 Employment Prospects

According to the data available from Industries Commissionerate, Government of Gujarat, the various large and medium scale projects under implementation since 1983 is likely to result in direct employment generation of 5.0 lakh persons. The majority of the employment above 1.0 lakh expected to be in Central Gujarat, South Gujarat and Kachchh. The north Gujarat is expected to provide employment to just 23 thousand people the least in state in industries.

The subsequent section discusses the quantum of indirect employments as envisaged in the various promotional documents of the *Vibrant Gujarat* expected to be generated through these primary employments. The promotion of the Micro Small and Medium Enterprise (MSME) in the State in the proposed industrial areas would likely to generate high demand of the work force.

¹⁰³ Industries Commissioner (2007): *Industries in Gujarat: Statistical Information, Census of Industrial Unit, 1999-2000*, PDF, Industries Commissionerate, Gandhinagar.

¹⁰⁴ Govt. of Gujarat (2010): *Socio-Economic Review: Gujarat State 2009-10*, Directorate of Economics and Statistics, Gandhinagar, PDF Document. p.26, (P) = Provisional

Region/District	Projects Nos.	Investment (in Rs. Cr.)	Employment	% Inv	% Emp.	Emp./Unit
Central Gujarat				12.22	29.89	
Ahmedabad	225	46,672	1,21,904	42.86	77.83	542
Anand	17	339	2,031	3.24	1.30	119
Dahod	0	0	0	0.00	0.00	0
Godhra	84	2,767	9,337	16.00	5.96	111
Vadodara	185	10,713	21,179	35.24	13.52	114
Kheda	14	951	2,177	2.67	1.39	156
Subtotal	525	61,442	1,56,628	100.00	100.00	298
South Gujarat				25.04	30.74	
Narmada	3	315	214	0.25	0.13	71
Navsari	17	96	4027	0.08	2.50	237
Bharuch	365	67,997	83,983	54.02	52.14	230
Surat	545	54,012	54,797	42.91	34.02	101
Valsad	205	3,459	18,063	2.75	11.21	88
Dang	0	0	0	0.00	0.00	0
Sub Total	1,135	1,25,879	1,61,084	100.00	100.00	142
North Gujarat				6.56	4.74	
Banaskantha	14	24,684	4,214	74.80	16.95	301
Gandhinagar	41	1,554	6,930	4.71	27.88	169
Mehsana	60	2,270	9,630	6.88	38.74	161
Patan	7	4,185	438	12.68	1.76	63
Sabarkantha	21	308	3,644	0.93	14.66	174
Sub Total	143	33,001	24,856	100.00	100.00	174
Saurashtra				23.73	13.40	
Amreli	16	16,436	2,864	13.77	4.08	179
Bhavnagar	33	5,830	5,598	4.89	7.97	170
Jamnagar	54	70,083	26,163	58.73	37.27	485
Junagadh	23	21,340	7,413	17.88	10.56	322
Porbandar	6	2,713	1,289	2.27	1.84	215
Rajkot	92	2,739	17,280	2.30	24.62	188
Surendranagar	13	187	9,588	0.16	13.66	738
Subtotal	237	1,19,328	70,195	100.00	100.00	296
Kachchh	442	1,62,204	111,174	32.26	21.22	252
Not Decided	1	0	0			
Total	2,483	5,02,754	5,23,937			211

Source: Industries Commissioner website (www.ic.gujarat.gov.in, 18Feb2011)

Source: Industries Commissioner website (www.ic.gujarat.gov.in, 18Feb2011)

4.5 Small Scale Industries (SSI) in Gujarat

Gujarat came into existence in 1960 as the result of the bifurcation of Bombay state. Industrial production of the State at that time ranked eighth among the Indian states. There were around 2,000 SSIs and around 3,000 factories, mainly related to cotton and food production.¹⁰⁵ Most of these industries were concentrated in the industrial pockets of Ahmedabad, Vadodara, Surat, Rajkot and Bhavnagar. At present, Gujarat has a steady base of SSIs in the field of machinery and parts, basic metal industries, rubber and plastic products, and chemical and chemical products, which function as a driving force for upgrading the industrial structure of the State. In the course of economic development of the State, the importance of food products and cotton textiles has declined drastically since 1980s.

4.5.1 Growth of SSI in Gujarat

Gujarat has witnessed significant development of SSI units. The number of SSI units was 0.72 lakh in 1985, which has went up to 3.10 lakh in 2006. SSI units have been highly concentrated only in Ahmadabad, Surat, Rajkot, Valsad-Dangs and Vadodara districts. The percentage in total number of units in the State varied from 58 to 65 per cent between 1985 and 2006. Among these districts, Ahmadabad has been at the upper most position followed by Surat and Rajkot districts. Beside, around 23 per cent of the State's SSI has been concentrated in Mahesana, Kheda, Bharuch, Jamnagar and Bhavnagar districts. (Table: 4.9)

The compound growth rate (CGR) of number of SSIs had 9.75 per cent in pre-liberalization periods, which declined to 6.37 per cent in post-liberalization. The overall CGR was 6.83 per cent. It is worthy to note here that, before pre-liberalization period, almost all districts had a higher CGR as compared to post-liberalization period. Among these districts, Gandhinagar had was achieved higher CGR of 12.5 per cent in the number of SSI units.

¹⁰⁵ Takashi, Shinoda (2000): "Institutional Change and Entrepreneurial Development: SSI Sector", *EPW*, XXXV (35/36), pp. 3207-3216.

Table 4.9
Registered Small Scale Industrial Units in Gujarat

Sr. No.		At the end of the calendar year					
	District	1985	1990	1995	2000	2005	2006 (P)
1	2	3	4	5	6	7	8
1	Jamnagar	3,843	5,396	7,698	10,413	13,035	13,162
	<i>Per cent</i>	5.3	4.7	4.3	4.1	4.3	4.2
2	Rajkot	8,348	14,417	20,923	27,874	32,030	32,267
	<i>Per cent</i>	11.5	12.5	11.7	11.1	10.4	10.4
3	Surendranagar	2,190	2,949	4,757	6,792	8,402	8,521
	<i>Per cent</i>	3	2.6	2.7	2.7	2.7	2.7
4	Bhavnagar	3,616	5,152	7,947	10,613	11,671	11,777
	<i>Per cent</i>	5	4.5	4.4	4.2	3.8	3.8
5	Amreli	909	1,426	2,566	3,929	4,811	4,835
	<i>Per cent</i>	1.3	1.2	1.4	1.6	1.6	1.6
6	Junagadh*	1,889	2,632	4,261	6,545	8,540	8,726
	<i>Per cent</i>	2.6	2.3	2.4	2.6	2.8	2.8
7	Kachchh	1,182	1,746	3,127	4,780	5,962	6,044
	<i>Per cent</i>	1.6	1.5	1.8	1.9	1.9	1.9
8	Banaskantha	942	1,755	3,230	5,003	6,665	6,743
	<i>Per cent</i>	1.3	1.5	1.8	2	2.2	2.2
9	Sabarkantha	1,347	2,362	4,307	6,497	8,359	8,479
	<i>Per cent</i>	1.9	2	2.4	2.6	2.7	2.7
10	Mahesana*	3,598	5,290	8,877	13,030	16,637	16,805
	<i>Per cent</i>	5	4.6	5	5.2	5.4	5.4
11	Gandhinagar	357	843	1,881	2,958	4,630	4,763
	<i>Per cent</i>	0.5	0.7	1.1	1.2	1.5	1.5
12	Ahmedabad	18,929	29,661	43,320	58,332	64,916	65,288
	<i>Per cent</i>	26.1	25.7	24.3	23.2	21.2	21.1
13	Kheda*	3,807	5,669	8,522	12,064	15,385	15,574
	<i>Per cent</i>	5.3	4.9	4.8	4.8	5	5
14	Panchmahals*	1,285	2,071	3,785	5,825	7,587	7,681
	<i>Per cent</i>	1.8	1.8	2.1	2.3	2.5	2.5
15	Vadodara	4,754	6,648	10,134	14,209	17,990	18,189
	<i>Per cent</i>	6.6	5.8	5.7	5.7	5.9	5.9
16	Bharuch	1,974	3,815	6,983	11,174	14,743	15,005
	<i>Per cent</i>	2.7	3.3	3.9	4.5	4.8	4.8
17	Surat	9,174	16,764	25,780	36,069	46,316	47,002
	<i>Per cent</i>	12.7	14.5	14.4	14.4	15.1	15.2
18	Valsad Dang	4,335	6,788	10,529	14,981	18,967	19,157
	<i>Per cent</i>	6	5.9	5.9	6	6.2	6.2
19	Gujarat	72,479	1,15,384	1,78,627	2,51,088	3,06,646	3,10,018
	<i>Per cent</i>	100	100	100	100	100	100

Table 4.10
Compound Growth Rates (CGR) of Small Scale Industrial Units in Gujarat

Sr. No.	District	1980-85	1985-90	1990-95	1995-00	2000-05	2005-06	1980-90	1985-95	1995-06	1985-06	1990-00	1980-00
Saurashtra & Kachchh													
1	Jamnagar	6.56	5.82	6.1	5.16	3.81	0.49	8.65	6.52	4.57	5.76	9.30	12.99
2	Rajkot	12.81	9.53	6.4	4.9	2.34	0.37	18.34	8.71	3.68	6.34	9.33	22.39
3	Surendranagar	9.59	5.08	8.3	6.12	3.61	0.71	9.93	7.31	4.98	6.37	13.03	17.94
4	Bhavnagar	9.34	6.08	7.49	4.94	1.6	0.45	10.90	7.42	3.33	5.51	10.60	16.52
5	Amreli	26.38	7.79	10.29	7.36	3.43	0.25	26.38	9.89	5.42	7.89	17.55	45.11
6	Junagadh*	11.91	5.68	8.36	7.42	4.53	1.08	12.23	7.68	6.16	7.2	14.87	22.63
7	Kachchh	16.43	6.72	10.2	7.33	3.75	0.69	16.90	9.25	5.65	7.7	17.38	31.82
North Gujarat													
8	Banaskantha	14.70	10.93	10.7	7.57	4.9	0.58	22.32	11.85	6.33	9.36	18.51	41.06
9	Sabarkantha	13.68	9.81	10.53	7.09	4.29	0.72	19.53	11.15	5.81	8.72	17.51	35.60
10	Mahešana*	11.12	6.63	9.01	6.61	4.16	0.5	12.88	8.56	5.46	7.26	14.63	23.17
11	Gandhinagar	158.50	15.4	14.31	7.84	7.75	1.43	200.75	16.31	8.05	12.5	25.09	364.75
Central Gujarat													
12	Ahmadabad	14.67	7.77	6.52	5.08	1.8	0.29	17.16	7.82	3.48	5.79	9.67	21.71
13	Kheda*	10.12	6.86	7.03	5.96	4.14	0.61	12.42	7.6	5.15	6.61	11.28	18.86
14	Panchmahals*	13.77	8.28	10.57	7.45	4.5	0.62	17.21	10.32	6.07	8.47	18.13	33.27
15	Vadodara	11.48	5.75	7.28	5.79	4.01	0.55	12.01	7.12	5	6.29	11.37	18.52
South Gujarat													
16	Bharuch	26.67	11.61	10.6	8.15	4.73	0.88	35.09	12.17	6.58	9.66	19.29	61.04
17	Surat	13.45	10.57	7.44	5.76	4.26	0.74	20.56	9.85	5.13	7.71	11.52	27.87
18	Valsad	17.63	7.76	7.59	6.05	4.01	0.5	19.46	8.4	5.11	6.99	12.07	27.51
	Gujarat	13.16	8.06	7.56	5.84	3.39	0.55	16.40	8.55	4.7	6.83	11.76	23.72

Source: Prepared on the basis of data available from Commissioner of Industries, Gandhinagar.

Note: The data of the new districts are included in the concerned district.

4.5.2 Regional Distribution of SSI (1985-2006)

The Gujarat state experienced a serious decline in the growth of SSIs during the post-liberalisation period and which further slowed down during the period 1995-2005. From the above table, it is evident that, Ahmedabad, Surat, Vadodara, Rajkot and Gandhinagar have emerged clusters for the SSI development in the State. The share of Ahmedabad and Vadodara (marginal decline) as a prominent cluster for the SSI has declined since the mid-1980s. The share of Surat and Gandhinagar has increased during the periods 1995-2005. This indicates the concentration of SSI in manufacturing centres, post decline of textile and ancillary units in Ahmedabad since early 1980. The declines in SSI growth from 8.55 per

cent in 1985-95 to 4.70 per cent in 1995-2006, may be associated with the lag of appropriate efforts by the State.

The CGR between various periods shows decline in investment by the small-scale industries sector in certain districts. The data pertaining to the period prior to liberalisation and during the early liberalisation reveals a higher CGR of the SSIs, particularly in Banaskantha, Sabarkantha and Mehsana districts in North Gujarat but it started declining from 1995 and continued to decline till 2005, when the large and medium industries in the State registered high growth rate. The CGR declined during 1985-95 from 12.17 per cent to almost half (6.58 per cent) during 1995-2005 in districts like Bharuch in South Gujarat. The major impact of the policy shift of the State in favour of the large and medium industries in order to increase the industrial output and its contribution to the GDP has been on the growth of SSIs.

4.6 Micro, Small and Medium Enterprise (MSME) in Gujarat

During 1960-2010, Gujarat had nearly 23,308 units employing 10.93 lakh workers. Since October 2006, the SSIs are included in the Micro, Small and Medium Enterprises (MSME)¹⁰⁶ through the MSMED Act 2006, comprising about 2.30 lakh units which employ around 12.90 lakh persons.¹⁰⁷

Most the MSMEs are providing employment to workers in urban areas. As per the data provided in the Fourth Census of MSME (2006-07)¹⁰⁸ on Gujarat, of the total MSMEs reported, around 80 per cent in the State as a whole and 76 per cent in North Gujarat were found to be working.

¹⁰⁶ Government of India has introduced Micro, Small and Medium Enterprises Development (MSMED) Act, 2006. Under the Act, Micro, Small and Medium Enterprises are classified as under:

Enterprises Investment in Plant & Machinery (Manu.)		Investment in Equipment (Service)
Micro	Less than Rs. 25 lakhs	Less than Rs. 10 lakhs
Small	Rs. 25 lakhs – Rs. 5 crore	Rs. 10 lakhs – Rs. 2 crore
Medium	Rs. 5 crore – Rs. 10 crore	Rs. 2 crore – Rs. 5 crore

(Source: Industries Commissioner, GoG, 2007)

¹⁰⁷ Govt. of Gujarat (2010): *Socio-Economic Review: Gujarat State 2009-10*, Directorate of Economics and Statistics, Gandhinagar, PDF Document.

¹⁰⁸ Industries Commissioner (2009): *Report on Provisional Results of Gujarat 2006-07* (based on 4th All India Census of MSMEs), Government of Gujarat, PDF (www.ic.gujarat.gov.in).

Table 4.11
Regional Distribution of MSMEs (2006-07)

Region	Working	%	Closed	%	Not Found	%	Total
North Gujarat	26,956	76.5	6,212	17.6	2,083	5.9	35,251
Saurashtra	61,,187	77.5	13,016	16.5	4,767	6.0	78,970
Central Gujarat	80,045	81.4	4,727	4.81	13,523	13.8	98,295
South Gujarat	56,561	82.3	10,238	14.9	1,899	2.8	68,698
Kachchh	4,990	80.3	752	12.1	473	7.6	6,215
Gujarat	2,29,738	79.9	34,945	12.2	22,745	7.9	2,87,428
Source: 4th All India Census of MSMEs, 2009							

The share of female participation in MSMEs is less than 6 per cent in the total workforce in the State. This share is as low as less than 1 per cent in industrially dominated South Gujarat. A larger share of 16 per cent of female participation is reported from Kachchh district, which might be due to presence of small and cottage industries as recorded in MSMEs (Table 4.12).

Table - 4.12
Sex-Wise Regional Employment in MSME (2006-07)

Region	Male	% M	Female	% F	Total	% T
North Gujarat	1,15,386	91.69	10,453	8.31	1,25,839	9.75
Saurashtra	2,59,319	92.28	21,703	7.72	2,81,022	21.78
Central Gujarat	4,50,483	89.57	52,433	10.43	5,02,916	38.98
South Gujarat	3,64,661	99.02	3,622	0.98	3,68,283	28.55
Kachchh	10,052	83.98	1,917	16.02	11,969	0.93
Gujarat	11,91,213	92.34	98,816	7.66	12,90,029	100.00
Source: 4th All India Census of MSMEs, 2009						

Majority of the MSMEs are concentrated in the urban areas (Table 4.13), whereas in North Gujarat and Saurashtra these are evenly spread in the rural and urban areas. This may be the result of nature and sector of industries promoted by the State and locating the estates through the initiatives of the GIDC. Nevertheless, the location of such units in Central Gujarat and South Gujarat, which take the majority of the MSME share, has been limited to urban areas. As a definite consequence of the urban concentration of industries, the employment-seeking population would obviously migrate to the towns and cities. Subsequently, this concentration is also an indicator of opportunities being provided only to the enterprises in the urban areas.

Table - 4.13
Rural-Urban Distribution of Employment in MSMEs (2006-07)

Region	Rural	% R	Urban	% U	Total
North Gujarat	66,366	52.7	59,473	47.3	1,25,839
Saurashtra	1,14,875	40.9	1,66,147	59.1	2,81,022
Central Gujarat	63,616	12.6	4,39,300	87.4	5,02,916
South Gujarat	3,522	0.96	3,64,761	99.0	3,68,283
Kachchh	0	0	11,969	100	11,969
Gujarat	2,48,379	19.3	10,41,650	80.7	12,90,029
Source: 4th All India Census of MSMEs, 2009					

The investments proposed during the last five Vibrant Gujarat Summits, the industrial clusters, special economic zones and special investment regions projects investment are located outside the existing urban centres. The prospective employment and investment data (2011) by the Industries Commissioner reveals that it is expected to be less in North Gujarat and Saurashtra. Even in Central and South Gujarat, the employment opportunities are limited to the developed *talukas* and districts. For example, in Saurashtra more employment opportunities are made available in Jamnagar and Rajkot districts, whereas share of Porbandar, Amreli, Bhavnagar and Junagadh districts is less than 10 per cent of total employment opportunities in Saurashtra. In central Gujarat, majority of the employment opportunities are provided in Ahmedabad and Vadodara districts, whereas rest of districts have less than 6 per cent share of the total opportunities created. Thus, the small and medium towns in the deprived districts and regions would have poor growth prospects and would see enhanced movement of people to mega cities.

4.7 Towards 21st Century Industrial Gujarat: A New Approach

Though Gujarat had been front-runner in industrial development in the country, its policy makers have never been satisfied with its share in the State Domestic Product (GSDP). According to NSS 64th round report (2007-08) the table on distribution of persons (per 1000) by broad usual activity (principal + subsidiary) status for each State/ U.T, Gujarat's unemployment is 5 per 1000 persons as against the National average of 9 per 1000 persons. This is one of the least unemployment ratios among the States of India.¹⁰⁹

¹⁰⁹ NSSO (2009): *NSS Report (531): Employment and Unemployment Situation in India*, July, 2007-June 2008, PDF, New Delhi.

The State has shifted its industrial policy from cluster and industrial estates (GIDC) based industries to Special Economic Zones (SEZ) during 2002-2004 and now shifted towards Industrial Regions¹¹⁰ and Special Investment Regions¹¹¹ expanding the industrial influence areas to 200-1000 sq.kms each. This shift is supporting the State's vision to become largest business hub in Asia and Global investment destination (Industrial Policy -2009). The Vibrant Gujarat Summits from 2004 to 2013 (six summits) have successfully attracted industries to commit investments in various industrial sectors.

The special Economic Zones in the State are the result of the erstwhile industrial policy shift post 2002 (SEZ related policy) and later SEZ Act (2004) GoI. These acts and provisions attracted investments by facilitating the industries to invest in the development of industrial townships encompassing statutory powers. This over rules the powers of local bodies and Government to interfere in day-to-day working inside the SEZs. The Special Investment Regions (SIR) on the other hand would be governed by the Regional Development Authority.

The concept of special investment regions is fuelled by the ongoing Dedicated Freight Corridors (DFC), which encompasses 150 km. on either of side as industrial corridors, namely the Delhi-Mumbai Industrial Corridor (DMIC). The State Government is providing port connectivity and necessary infrastructure to boost the demand of industrial investment in the State.

4.7.1 Special Economic Zones in Gujarat

Gujarat like other states in the country is now enabling SEZ to be created on demand not based on central, state and regional (district) planning requirements but on the demands of private capital. Gujarat SEZ Act 2004 and its subsequent amendments in 2007, formulate about 90 SEZs that are under various stages of implementation in the State. The land for these SEZs are acquired or purchased by public and private enterprises without any resettlement and rehabilitation package/policy. The GIDC was utilized as an instrument to acquire land from the farmers and facilitate the setting of SEZ for private capital investment.

Though the State has also claimed a fewer amount of agricultural lands for the SEZ, it has successfully diverted the common or *gauchar* (pasture land) land (often state refers this

¹¹⁰ Industrial Regions- Industrial Nodes identified for the large scale industrial development by state or national organizations.

¹¹¹ Special Investment Regions – Formulated under the Special Investment Region Act, 2009

as wasteland) from the listed properties in land banks to those industries promising high investment in the SEZs. At present, Gujarat has been able to attract investment to the tune of 2.63 lakh crores promising employment of 20 lakh persons and acquired nearly 32,000 ha. of land.¹¹²

It is also important to note that the State is going to attract a huge workforce in Gujarat given its 1.6 crores total workforce available and 50 per cent engaged in gainful employment in the primary sector (cultivators and agricultural labourers) and 20 per cent as marginal workers in rural Gujarat. By large influx of migrant population to existing urban centres as well as proposed SEZs, areas can meet the human resource demand for the industries. In the absence of any impact assessment of the operational SEZs, it is difficult to assume the socio-economic impact of SEZs.

Data available¹¹³ for the SEZs, from the documents up to December 2010, it can be tabulated that Gujarat has three functional, 13 notified and operational, 29 notified, 45 formal approval and 13 in principle approval. The State would have 103 SEZs in the coming future under various sectors, each acquiring land ranging from 10 ha. to 6,000 ha. in different districts.

Delhi-Mumbai Industrial Corridor (DMIC)

DMIC is an influential zone along the proposed Western Dedicated Freight Corridor (DFC) from Delhi to Mumbai being created by joint venture partnership of Government of India and Japanese Trade Organisation (JETRO). Of its total length the DMIC, around 38 per cent would be within the Gujarat state, which is being targeted to be utilised for the new industrial development in the State (*See Figure 4.14*).

Western Dedicated Freight Corridor (DFC)

Western Dedicated Freight Corridors (DFC) would connect Delhi to Mumbai (1,483 kms.) covering four states in Western India. The DFC covers 588 kms, approximately 40 per cent of its total length. The DFC would impact about 60 per cent of the total area of Gujarat affecting 18 out of 26 districts in the State. About 74 per cent of the population (37.3 million) would be affected by the massive industrialization along the 150 kms on either side of Western DFC as its influence zone. This zone comprises of 15.7 million working population

¹¹² MoCI (2010): Ministry of Commerce and Industry (MoCI), Data Released on Web, New Delhi as on 31/05/2010

¹¹³ www.sezindia.nic.in/asez-sez-granted-under2005.asp for PDF download and latest information

of the State. The million plus cities along the corridors are Ahmedabad, Vadodara and Surat and 0.5 to 1.0 million population cities in the influence zone is Bhavnagar. The State has proposed to develop industrial regions, Special Investment Regions and port connectivity to Western DFC.

4.7.2 Special Investment Region (SIR) in Gujarat

The State Government has promulgated a legal framework – The Gujarat Special Investment Region (SIR) Act, 2009. The State Government has plans to create large investment regions and industrial areas in the State; and to specially enable their development as global hubs of economic activity supported by infrastructure, civic amenities, centres of excellence and pro-active policy framework; and to set up an organizational structure for such regions.

The SIR Act, 2009 has provision for the development of such economic hub(s) with global standards. An Investment Region will be developed in an area of more than 100 sq. kms. (10000 ha.) and an Industrial Area will be developed in an area of more than 50 sq. kms. (5000 ha). The Ordinance provides for establishment of a four tier administrative mechanism for establishment, operation, regulation and management of the SIRs. The structure will comprise of an Apex Authority, a Regional Development Authority (RDA) for each region, a Project Development Agency and project specific SPVs. The Government has already approved formation of such a project development company in the name of “Gujarat Industrial Corridor Company” (GICC).¹¹⁴

The State has identified potential locations for development of Industrial Regions or Special Investment Regions (SIR), among work on SIR like Dholera, Pipav, PCPIR (Dahej) etcetera have already commenced by the State Government. The Industrial Extension Bureau (INDEXb) document¹¹⁵ about the SIR, lists 13 prospective SIRs and its land use plan to attract industrial investment over a total area of 4,600 sq. kms. (4,60,000 ha.) in the State. These sites are estimated to acquire 3,731 sq. kms. of land under for SIR governed by the Regional Development Authority (RDA) as per the provision of the SIR Act, 2009. This includes an island SIR in Bharuch district, Aliyabet covering 163 sq.kms. area primarily for aquaculture, film industry and recreation support to nearby PCPIR Dahej Special Investment

¹¹⁴ GIDB (2012): www.gidb.org, Gujarat Infrastructure Development Board

¹¹⁵ INDEXb (2010): Special Investment Regions: Sector Profile, Vibrant Gujarat Summit-2011, GoG. PDF Document, pp. 1-87

Region. The combined estimate of the employment opportunity through SIR is estimated to be above 31.0 lakh persons in the State.

Following are some of the examples of the investment regions verses employment promises:

Table 4.14
Area and Employment estimates in Some SIR

Special Investment Region	Area (sq.km)	Proposed Employment
Dholera, Ahmedabad	879.00	3,42,000
PCPIR, Dahej	453.00	1,20,000
Anjar, Kachchh	630.00	6,29,444
Changodar, Ahmedabad	319.00	4,62,287
Hazira, Surat	195.00	1,10,903
Santalpur	186.00	3,00,000
Navlakhi	182.00	6,85,000

Source: Special Investment Regions: Sector Profile, INDEXb (2010)

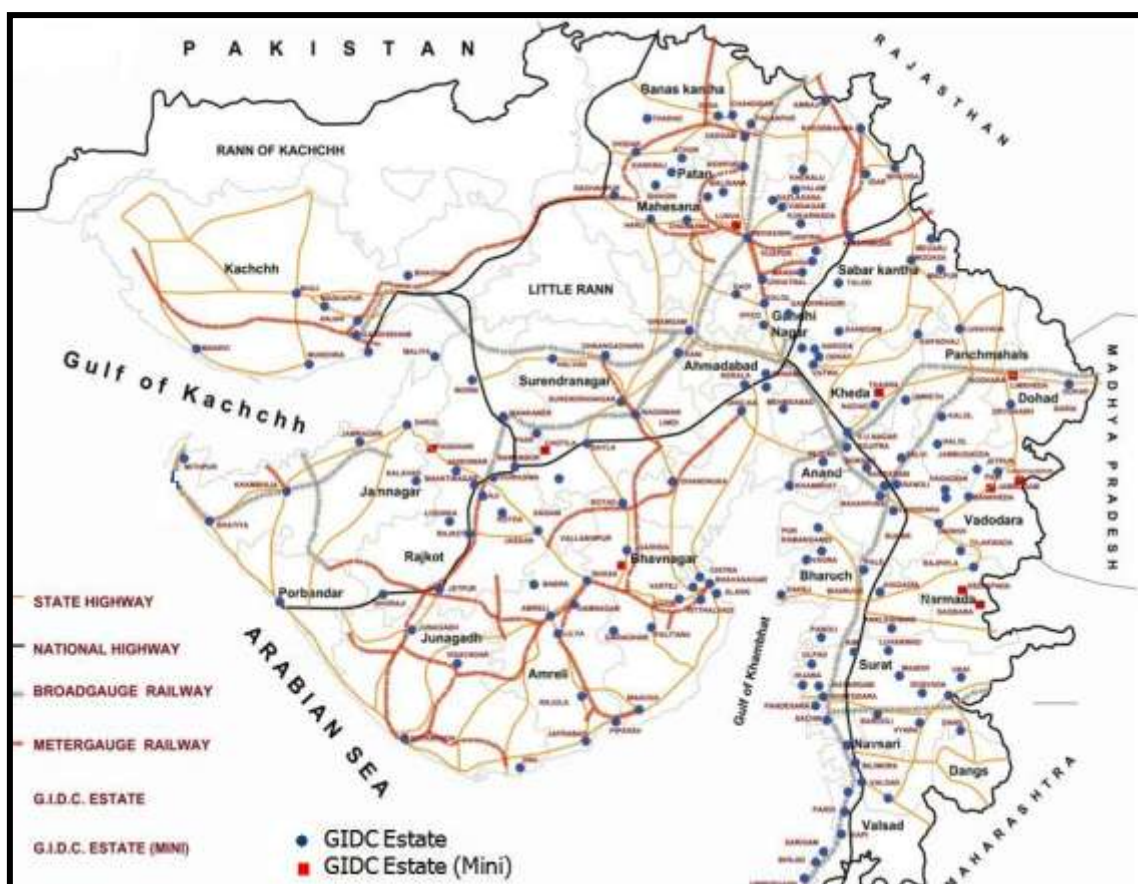


Figure 4.12: Distribution of Industrial Estates (GIDC, 2010)

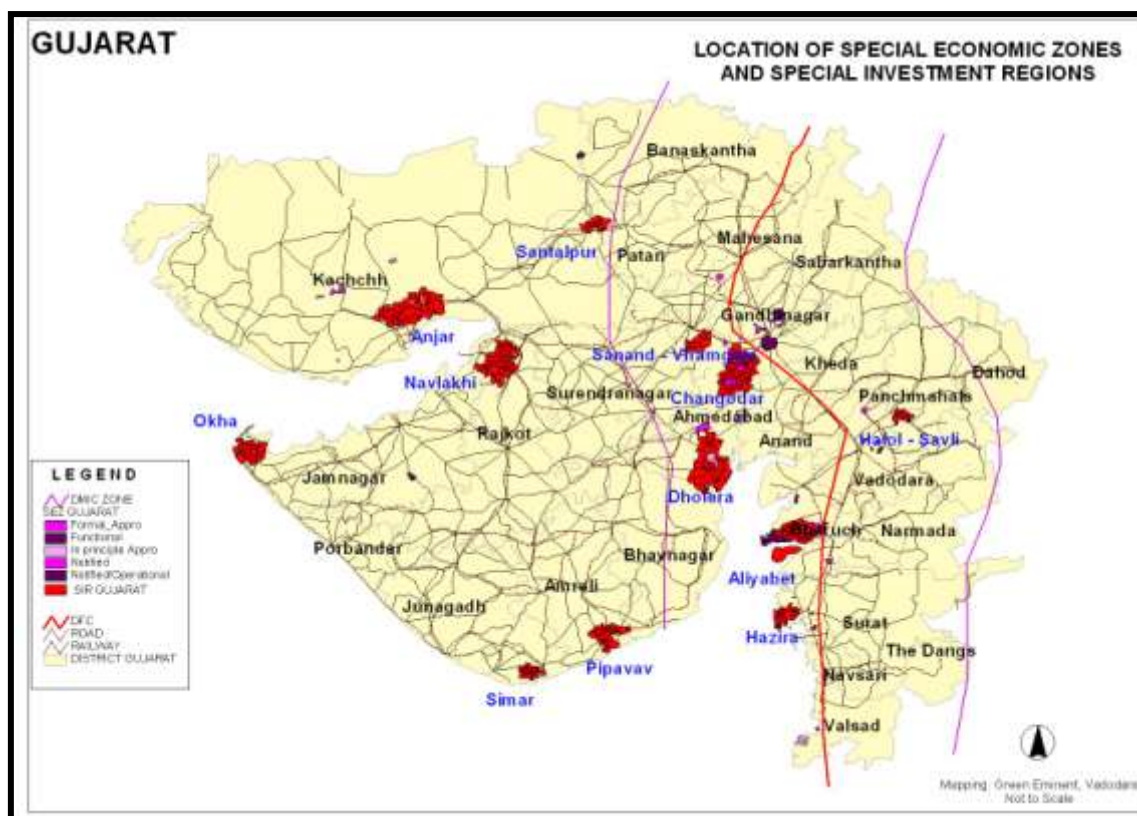


Figure 4.13: Distribution of SIR and SEZ, 2010

4.8 Impacts of Present Industrial Growth Patterns

The industrial growth as studied from the various policies had varied impact on the employment potentials and urbanisation in the State. The industrial growth in the State is also associated with various impacts which was analysed by undertaking literature review and discussions with the Stakeholders in the field. The substantial arguments are also presented in this section to raise the issues of general concerns and specific to the State. The issues may be raised in later chapters for the further discussion; however, the following impacts can be briefly mentioned;

(a) Over employment and shortage of labour in Urban Gujarat

Golden says, “The problem of over employment refers to a situation where workers are willing but unable at their current jobs to reduce the amount of time they devote to earning an income. Many people go through a spell at some point when they would prefer shorter work hours. They are prepared to sacrifice income to attain it in order to avoid the more costly step of leaving an occupation or withdrawing from the labour force entirely.”¹¹⁶

¹¹⁶ Golden, L. (2003): “Forced Overtime in the land of the Free”, in J. de Graaf (ed.), Take Back Your Time, Berrett-Koehler Publishers, Inc., San Francisco, pp. 28-36.

This situation is attained when more people in the urban areas are joining the work force in the informal and unorganized sectors. The nature of employment mostly contractual has forced the workers to engage in the activities not suited to their education or experience. The workers are made to have extended working hours in the industries such as diamond, textile, chemical and pharmaceutical. People engaged in such works often try to compensate the employment in the industry by doing some additional hours by engaging themselves in various occupations such as multi-level marketing, online job or trading etcetera.

According to NSSO report (2009), Gujarat has the least unemployment ratio in the country, with only five out of 1,000 persons of in the working age group are unemployed. It can be assumed that, the State with aggressive industrial policy would allow multiple and increased employment choice to its people. From the recent media reports, it is estimated that the State is short of labour force in agricultural, industrial and services sector of its economy. The major industries like Diamond and Textile are failing to meet the labour supply from the traditional sources, i.e. mainly migrants from poorly developed states. It is expected that, the success of the Mahatma Gandhi Rural Employment Guarantee Schemes (MNREGA) in Gujarat could cause initial setback to the labour supply from the rural hinterland.

The cost of production and labour accumulation in the State would start to increase as the labour demands between the competing non-agricultural sectors increase. At present, Gujarat has 60.99 lakh persons employed in 24.26 lakh establishments engaged in different economic activities other than crop production and plantation.¹¹⁷ In addition, the proposed investments in SIR and SEZ are expected to generate an additional 50 lakh employment for next 20 years for the skilled and semi-skilled work force.¹¹⁸ This might result in the shift of working population from the primary sector to the secondary and tertiary sectors. In spite of the primary sector facing the shortage of labour required for the commercial crops like cotton and tobacco, the industries would further trigger the exodus of people from this sector. In the ultimate analysis, Gujarat may have an increased capital investment but would face shortage of skilled persons.

¹¹⁷ Govt. of Gujarat (2010): *Socio-Economic Review: Gujarat State 2009-10*, Directorate of Economics and Statistics, Gandhinagar, PDF Document. www.gujaratindia.com

¹¹⁸ GIDB (2011): *Vibrant Gujarat: Sector Scenario - SIR & SEZ*, Government of Gujarat, PDF, accessed from <http://www.gidb.org>

(b) Employment and Urbanisation Scenarios for 2040 AD

In the event of successful investment in the new urban centres, particularly in industrial investments centers, the consequence is in the migration of population from the existing urban centres. The SIRs like Dholera, which is planned accommodate around 2.0 million people during the next 20 years, is expected to pull people primarily from neighbouring Ahmedabad, Bhavnagar, Rajkot and Anand urban regions. The Dholera SIR would be attracting investment above Rs. 1.0 lakh crore and provide employment to 3.42 lakh persons by the year 2040.¹¹⁹ Similarly, the Dahej PCPIR in Bharuch is expected to attract 1.2 lakh persons for employment with an investment of above Rs. 50,000 crores by various industries. Similarly other 12 SIR located in various parts of Gujarat would be able to attract more than 20 lakh persons for employment. These mega changes in investment and urban scenario would create a huge employment potential for not only people of Gujarat but also fuel migration from other parts of country until 2040.

Growth Nodes such as proposed industrial centres in the DMIC and SEZs would attract people by providing employment opportunities. Since the existing metropolitan cities would compete to retain the workforce as well as investments, the predicted migration to the new urban centres would be from the small and medium towns. One may perceive it as a warning for the existing urban centres which do not remain or cannot function as centres of economic growth. Overall impact on the regional economy would be immense in Saurashtra, Central and North Gujarat due to the future urbanisation scenario.

Urban employment in the new urban centres would not be accessible to the untrained or semi-skilled persons, rather it may add to the informal employment opportunities at the proposed centres. The State needs to accelerate the training and skill development programmes for the vast work force. Though an assessment of employment scenario until 2040 is now closely associated with successful implementation of proposed investment in new urban centre.

(c) Spatial Threats and Opportunities

The latest NSSO report, 'Migration in India', has found Gujarat to have the highest rate of urbanisation among all other states in the country. Based on a survey carried out by NSSO across India in 2007 and 2008, the report significantly suggests that fast pace of

¹¹⁹ ibid

urbanisation in Gujarat is mainly due to intra-state migration with large sections of rural people migrating to urban areas from within the State instead of going out.

The report indicates that 65 per cent of all urban households in Gujarat are migrants from within the State, which is the highest in the country. Again, 90.6 per cent of Gujarat's rural migrants are moving within the State. Of these, 60.7 per cent go to other districts and 29.8 per cent shift to other places in the same district. More people are moving from agriculture to non-agricultural occupations in Gujarat than elsewhere in India. It is estimated (2009) that in Gujarat just about 50 per cent of the working population is involved in agriculture, as against 70 per cent in the country. Significantly, 48.3 per cent of the village men who migrate are wealthy, which is unique for India. Only four per cent of them say economic compulsions forced them to migrate to other places.

Spatial threats posed to the urban centres in the State due to more people moving out from the rural areas to the urban centres would necessitate a long-term perspective plan for the improvement in city infrastructure and housing. The subsequent shortage of farm labours may also force the agriculturists to turn over to non-farm activities leading to development of megalopolis in Central and South Gujarat.

The uneven regional distribution of investment would result in the growth of one region at the cost of another. Due to lack of focus on metropolitan cities, the future migrations would be from the small and medium towns to the new investment centres at the Special Investment Regions (SIR). The participation of women workforce in the urban areas should be matched with suitable employment opportunities.

The new investment destination would fuel the desired rural to urban migration of people, may result in further shortage of labour in the farm sector and subsequently to the existing industries. A further research on the same subject is required to prove the points emerged from the chapter after conducting field investigation. State needs to have realistic projection of employment generation from the investment made in the various sectors from the independent analysis of the various sectors.

4.9 Summery of Issues Concerning Industries

The section below is on the field interaction and discussion with the various stakeholders in the State. The following issues emerged out which are vital for the sustainable development of industries in the State.

1. Spatial Characteristics

The distribution of industries is limited to the resource rich regions. The backward regions of the State also have a below satisfactory level of growth of the small-scale industries. Low priority has been given to the natural and agricultural regions for industrial investments during the last decade. The decline of industrial growth in some of clusters and competition faced by SSI from the large and medium industries such as in Machine Tools, Automobile, Electric equipment etc is affecting their business as well as employment potential..¹²⁰

2. Land Availability

There is a general concern among the respondents about the land utilized for the industries. The State has been utilizing the common lands (designated as Government lands) either used or unused for the industrial purposes. Several conflicts were reported in the Kachchh, Bhavnagar, Surat, Vadodara and Ahmedabad during the *research period* (2004-2012). The interaction of the present researcher with the activists associated with the farmers' issues in Kachchh and Bhavnagar districts, revealed mixed response; both in support of industrialisation as well as in favour of protecting the agricultural land for any misuse since the cases were ongoing in the court. The field responses indicated that, the farmers and fishermen were aggrieved in Kachchh. In Bhavnagar agitation against the allocation of village common land to industry was going on spearheaded by the sitting Member of Legislative Assembly (MLA) of the area. These discussions have been further elaborated in the subsequent chapters.

3. Problems faced by Industries

There are a few common problems which can affect the industries, such as water, electricity, roads, transportation, communication, capital and raw materials. Although the Government has been the facilitator through a set of institutions like GIDC, IndexB, GIDB etcetera, the declining industrial efficiency and quality of MSME due to stiff competition at domestic as well international markets have raised questions. The industries face problems in availability of experts, technical and skilled labour force..¹²¹

4. Problems Created by Industries

The following are some of the problems in Gujarat, resulting due to its rapid industrialisation:

¹²⁰ Discussion at a Industrial Forum, VCCI, 2010, Vadodara

¹²¹ Discussion at Surat Expo, 2009 and VCCI Show 2010, Vadodara

- The workers are exploited by giving lower wages, more work and no social securities.
- Industries get land from farmers at a lower rate as these are acquired under the Land Acquisition Act of the State. Some of the respondents in a discussion perceive that, industries using precious agricultural land acquired at lower prices, might affect the prospects of the State and its people in the long run.
- There is an increase in the quantum employment in the State, and most of the skilled workers are migrants from other states. As per the requirements of the new industries, there is a lack of quality education provision in the State. Although employment opportunities have increased, the growth rate of employment in the organised sector during post 1991 has recorded a decrease or has stagnated.
- During the discussion at Hazira (near Surat) in year 2006 the members of the *Panchayats* (village body) said, ‘the people of Gujarat have to suffer, due to pollution of water, land, air and noise because of industrial progress. There is a constant increase in dirty and filthy slum areas. Most of the migrants in urban areas are from the villages of the Gujarat’.¹²²
- The excessive use of groundwater by the industries is creating a problem of portable water in the neighbouring regions of Ahmedabad, Vadodara, Bharuch, Ankleshwar and Vapi.¹²³
- The overuse of fertile and common property resources for the development of SEZ would result in scarcity of fertile land and thus increment in the problem of poverty and unemployment in the rural hinterland.
- The State Government has been emphasizing upon industrial development, however, the Human Development Index (HDI) in the State has displayed a very slow progress. Although agricultural development is a prerequisite for industrial development, it has remained neglected.
- The State is experiencing growth of medium and heavy industries, but the small industrial units are becoming sick and in some cases getting closed down.

¹²² Field Notes, 24.12.2006, Surat

¹²³ Discussion with Mr. Rohit Prajapati, Environmental Activist at Vadodara, 10th February 2007

- The rampant industrialisation has also affected the forest areas adversely, particularly in the ecologically most fragile areas of the State, such as the coastal areas of Saurashtra and Kachchh. This might result in an increase in diurnal temperature, irregularity of rain, cyclones and other related natural calamities.

4.10 Conclusion

Gujarat has given preference to industrial development as a necessary strategy for its economic growth. Consequentially, it has emerged as an important contributing state for the industrial development of India. Nevertheless, there are several unresolved issues especially concerning the growth of the MSMEs and their development, despite the fact that their contribution in industrial employment and exports is immense.

Although industrial infrastructure has spread across the State, the backward areas have received less attention due to spatial constraints. Since the 1980s, the State is experiencing a shift of its workforce from the primary sector to secondary and tertiary sectors. The spatial transition in concentration of industries was observed in the State that during 1960s, it focused only on agriculture. Now, after five decades the focus of the State has shifted to only industries. It is important to think on future direction of development in Gujarat.

Gujarat Government realises that new investment climate of liberalisation, privatization and globalization has opened new opportunities to attract industries in the State from within and outside the country. The State has now started to compare itself not only with other Indian states but also with the emerging regions of south-east and East Asian countries for investment in the industrial sector. With the continuous flow of land, incentives and concessions from the Government the industries might find it very attractive, more so with large scale and mega industries with investment more than 100 crores to 500 crores. Nevertheless, whether industrial growth would sustain in future in absence of skilled work force is question would be more important in the next decades.