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REGIONAL DIFFERENCES IN URBANISATION PATTERN AND BASIC SERVICES IN GUJARAT**Shital Shukla**

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Abstract: *The higher level of urbanization can contribute to the growth and development of the nation if it improves the well-being of people. However, the process of urbanization is dynamic, complex and challenging. It is considered to be a key indicator of an economic development where urban centres act as the engines of growth. At the same time urban areas have to cater basic services to urban dwellers in an affordable and efficient manner. Therefore it is important to understand the trend and pattern of urbanization within the state of Gujarat and to assess the regional difference in access to basic services in various parts of the state. This paper makes an attempt to through light on these issues of urbanizations. The study has used Census data to assess the status of basic services in Gujarat. It has analysed that there is a huge regional differences in the distribution of the basic services within Gujarat. Such analysis will be helpful to planners for improving the service delivery and reducing disparity of basic services within the state.*

Key words: Urbanization, Regional Disparity, Urban water Supply

Introduction

Urbanization is a process which facilitates the growth of cities and towns mainly because of rural to urban and urban to urban migration. The process of urbanization is dynamic, complex and challenging. It is considered to be a key indicator of an economic development where urban centres act as the engines of growth. The growth of urban areas can contribute significantly to a development of a state or a nation if those urban areas adopt an efficient and sustainable mechanism to improve the quality of life for urban people. In order to do so, urban centres have to increase the scale of urban basic services and an infrastructure. Failing to do so can result into over explosion of population at some places compromising with the quality of life. Such phenomena can increase regional inequality further by marginalising a few pockets. Subsequently, it hinders the process of an integrated development. This paper makes an attempt to assess the regional growth and the pattern of urbanization as well as the differences in access to basic services within the state. It tries to look into the variation observed in socio-economic characteristics of urbanization pattern in general and particularly, the variation observed in delivery of basic services within the state.

Urbanization in Gujarat: Trend and Pattern

India has more than one fourth (31.2 percent) of its population living in urban areas in 2011. At the same time, the state of Gujarat reported very high percentage of urbanisation with 42.6 percent of people living in urban areas. (Table 1) The state of Gujarat ranks 12th in India with respect to the proportion of urban population. Compared to its neighbouring states, Gujarat is having higher proportion of urban population then those of Rajasthan and Madhya Pradesh and slightly less than that of Maharashtra. Gujarat is also considered to be one of the highest urbanised states in India. In fact, in the last decade, the proportional increase in urban population is also very high in Gujarat.

Table 1: Urbanization in Gujarat

State	Percentage of Urban Population		Annual Exponential Rate of Growth	
	2001	2011	1991-2001	2001-11
Gujarat	37.4	42.6	2.08	3.07
Maharashtra	42.43	45.22	3.01	2.12
Madhya Pradesh	26.46	27.63	NA	2.29
Rajasthan	23.39	24.87	2.76	2.55
India	27.82	31.14	2.73	2.76

Source: Census of India, 1991, 2001, 2011

The growth of urban population in Gujarat is higher than the national average. It is important to note here that India and neighbouring states have reported decline in Annual Exponential Growth rate of urban population from the decade of 1991-2001 to 2001-11 while Gujarat has reported an increase in Annual Exponential Growth rate of urban population for the same time period. This shows that the urbanisation rate in Gujarat is increasing higher than India and neighbouring states. Table 2 depicts an annual exponential growth of urban population in Gujarat and India. It clearly shows that the growth of urban population in Gujarat has remained higher than that of the rest of India since the beginning of the collection of the Census data. However, the differences in growth rate have changed over a period of time.

One can divide the Trend of urban growth in four distinct periods: colonial period, freedom Period, after liberalisation and globalisation period. During a colonial period, Gujarat has reported higher growth than the nation. At the time of freedom, the state and nation grew at the same rate of growth. This may be because of the large scale migration due to partition. Gujarat being the bordered state experienced a vast political movement during the time of freedom. Nonetheless, the state picked up growth very fast in comparison with that of Indian average growth of urbanization. While the trend of urban growth in India was declining after liberalisation, the growth of Gujarat continues to follow an upwards trend. The liberalisation and globalisation has favoured the growth of Gujarat along with some other states such as Tamilnadu, Andhra Pradesh and Maharashtra. This is due to huge investments in an industrial sector. This process attracted a large number of people migrating towards Urban Gujarat.

Table 2: Annual exponential growth of urban population in sub regions of Gujarat

Decade	Gujarat	CG*	NG*	S*	SG*	India
1920	2.5	2.2	1.5	2.0	2.0	0.8
1930	3.3	3.1	2.1	2.7	2.1	1.8
1940	3.5	3.1	2.1	3.0	2.9	2.8
1950	3.6	3.2	2.2	3.1	2.9	3.5
1960	3.7	3.2	2.4	3.1	3.0	2.3
1970	4	3.5	2.6	3.4	3.4	3.2
1980	4.2	3.6	2.7	3.5	3.6	3.8
1990	4.3	3.5	2.7	3.6	3.8	3.1
2000	4.6	3.8	2.9	3.8	4.1	2.7
2010	4.8	4.2	3.1	4.0	4.2	2.4

Source: Calculated from Census of India, Town Directory, 2001, 2011

*Note: CG= Central Gujarat, NG = North Gujarat, S = Saurashtra, SG = South Gujarat

In short, the urban growth in Gujarat has remained higher than the national average and it has shown a steady increase over a long period of time. However, such growth is not homogeneous within the state. This is revealed by calculating the growth rate of urban

population by sub-region. North Gujarat has reported the slowest growth rate among all the sub regions. However, the growth of this region accelerated the growth of nation after globalisation. The impact of Mumbai-Delhi industrial corridor contributed the development of this region. Hence, the growth rate increased after 1991. Nonetheless, compared to other sub-regions, this region has shown less growth rates of population. The central Gujarat has experienced high growth rate of urban population since the colonial period. It is obvious that the geographical accessibility of the central location of this region has contributed significantly for the urban growth in the central Gujarat.

South Gujarat picked up after the freedom from the colonial period. In fact, the urban growth rate in South Gujarat was less than that was in Saurashtra during colonial period. Later on growth of South Gujarat accelerated which is due to the development of golden corridor which attracted large scale investment on infrastructure and industries. The urbanization in Saurashtra slowed down during 1980s and 1990s decades. It only picked up after the globalisation and liberalisation that facilitated the development of new ports and silver corridor of the coastal region. This shows that the process of urbanization in Gujarat is complex and dynamic. There is a large regional variation among the different regions and their growth stories. This has also led to the regional imbalance in various other sectors.

Table 3: Town wise proportion of urban population

Gujarat	Class I	Class II	Class III	Class IV	Class V	Class VI	Total
Urban Population	18580506	2325689	2707695	1485735	484436	71222	25655283
Percentage of total urban population	72	9	11	6	2	0.4	100

Source: Town Directory, Census of India, 2011

Table 4: Demographic Statistics for urban Sub regions

Regions	Density	Sex Ratio	% SC	% ST	% urban poor**
CG*	4291	906	9.83	2.56	23.7
NG*	2307	915	9.05	2.19	18.1
S*	2249	919	7.43	0.91	20.3
SG*	5292	827	3.85	6.41	13.8
Gujarat	3499	881	6.97	3.47	13.3

Source: Census of India, 2011

*Note: CG= Central Gujarat, NG = North Gujarat, S = Saurashtra, SG = South Gujarat

**Source for urban Poverty rates are estimated by Chaudhuri, S. and Nivedita Gupta (2009) from NSSO

As far as town wise distribution of urban population is concerned, the pattern seems to be heavily loaded on class I towns. Almost three fourth of the urban people are residing in class I cities. Another 20 percent of urban residents live in class II and class III. One of the important reasons behind the less proportion of urban people in class IV to class VI is non-availability of employment opportunities in small towns in Gujarat. The above table shows the demographic characteristics of four sub regions of Gujarat. It is obvious that the density is positively correlated with urbanization process. Urban areas of South Gujarat have reported the highest density of population. The development of golden corridor in last five decades has attracted a large migrated population towards South Gujarat. This has led to the higher concentration of density of population per sq. km. in this sub region. It is interesting to note here that migration towards this region is male dominated and this has made the sex ratio of this region the lowest compared to those of other sub regions. Nonetheless the sub region has reported the lowest

urban poverty in the state. Industrialisation and large scale investment projects might have contributed to reduce the poverty levels in this region. Contrary to this, North Gujarat being less urbanised has better sex ratio and have less urban poverty than Central Gujarat. The central Gujarat with high urban growth rate has failed to remain at par with other sub regions (specifically North Gujarat) in terms of better sex ratio and less poverty rates which are important indicators of quality of life.

THE STATUS OF BASIC SERVICES

Status of Electricity in sub-regions of Gujarat: The status of electricity is an important indicator of urbanization process. The domestic, commercial and road lightening connection of electricity are observed higher in urban areas of North Gujarat. The governance system of less urbanised sub regions seems to be effective as far as coverage of electricity is concerned. Industrial connections are more in urban areas of Central and South Gujarat but their proportion is very less in other three types of connections compared to other regions.

Table 5: Coverage of electricity in various urban sub regions

Regions	% HH Having Domestic Connection of Electricity	Industrial Connection of Electricity per 100 HH	Road Lighting Connection of Electricity PER 100 HH	Commercial Connection of Electricity per 100 HH
CG*	93.8	4.3	11.0	24.3
NG*	94.0	3.9	16.3	29.7
S*	93.4	4.5	17.8	25.1
SG*	86.3	6.4	14.2	19.1
Gujarat	90.9	5.1	14.3	22.8

Source: Census of India: 2011

*Note: CG= Central Gujarat, NG = North Gujarat, S = Saurashtra, SG = South Gujarat

Variation in Water Supply services in urban areas in Gujarat: Drinking water is one of the most necessary basic facilities. The following table indicates the number of protected water supply sources per ten lakh populations and the capacity of such sources in different sub regions to provide water to urban Gujarat. It is interesting to note here that North Gujarat has the highest number of protected sources of water supply. However, the capacity of such water supply is the least in this region. This table also indicates that the central Gujarat and the South Gujarat sub-regions have large water supply infrastructures with higher water availability per household. This is because the precipitation is high in these two regions which facilitate the collection of water quantity. But protected Sources generated per unit households are more in North Gujarat which may be due to priority of urban governance towards drinking water services. As far as water storage capacity of urban water reservoir is concerned, none of the region is sustainable in terms of fulfilling minimum supply norms of 135 litres per capita per day. All the four sub-regions have shortage of water holding capacity to meet the standards of drinking water provision. Deficits are severe in North Gujarat and Saurashtra. This is a matter of concern for the state to invest more to create large capacities of reservoir for the provision of safe drinking water to urban dwellers.

Table 6: Drinking water Services across various sub regions of urban Gujarat

Regions	protected water supply sources per 1000000 HH	per Household Capacity of Sources to provide water (in litres)	per capita Capacity of Sources to provide water (in litres)
CG*	260	649	130
NG*	520	339	68
S*	470	433	87
SG*	350	520	104
Gujarat	360	528	106

Source: Census of India: 2011

*Note: CG= Central Gujarat, NG = North Gujarat, S = Saurashtra, SG = South Gujarat

Status of Social Infrastructure: The infrastructural support such as Pakka road per unit area is an important indicator which provides easy geographical accessibility to urban people. It can facilitate commuting for labourers and workers. The comparison among various sub regions shows that South Gujarat seems to have better service delivery according to its population and area size. The lower urbanised sub regions are lagging behind in terms of the road infrastructure provision according to their area and population size. This shows that highly urbanized areas allocate good amount of financial investment in road infrastructure. This may be due to the fact that highly urbanized sub regions divert their financial resources towards intensive and expensive infrastructure rather than providing basic amenities.

Table 7: Road Density across sub-regions of urban Gujarat

Regions	Density per sq. km.	Pakka road per sq km of area	Pakka road per lakh population
CG*	4291	2.37	55
NG*	2307	1.51	65
S*	2249	1.78	79
SG*	5292	3.02	57
Gujarat	3499	2.21	63

Source: Census of India: 2011

*Note: CG= Central Gujarat, NG = North Gujarat, S = Saurashtra, SG = South Gujarat

Table 8: Type of Drainage facility across sub-regions of urban Gujarat

Drainage	Open Drainage	Closed Drainage	Both	NR	Latrines-Flush/Pour Flush per 100 HH
CG*	25.7	38.6	34.3	1.4	20.2
NG*	10.7	35.7	53.6	0.0	17.9
S*	23.7	28.9	42.1	5.3	16.9
SG*	6.6	35.3	53.7	4.4	21.3
Gujarat	16.4	33.9	46.0	3.7	19.5

Source: Census of India: 2011

*Note: CG= Central Gujarat, NG = North Gujarat, S = Saurashtra, SG = South Gujarat

Better drainage facility along with proper sanitation can result into better health and hygiene status that can provide a better quality of life to urban people. That is why it is important to have better coverage of such facilities in Urban Gujarat. Analysis of the above table shows that there is a variation among sub regions in delivery of such facility. Overall, only 34 percent of urban households have accessibility to closed drainage while only 19.5 percentages of urban households have latrines with flush facilities in Gujarat. Across the sub-regions, Saurashtra is

lagging behind the other regions. In spite of having less urbanised sub-region, North Gujarat is almost at par with South Gujarat in providing closed drainage facility. Thus the state has a long way to achieve sustainable development goal for urban areas. The Saurashtra region needs a high priority for the improvement in water and sanitation services.

Status of Health and Education in Urban Gujarat: The table 9 indicates that North Gujarat ranks first in providing health facilities. Whether it is hospital or doctor or bed facility or other para medical staff, prevailing facilities per unit population is the highest in North Gujarat. Higher number of availability of health facilities can provide better health to urban people. The central Gujarat is having the highest number of bed facilities per unit population.

Table 9: Availability of Medical Facility across sub regions of urban Gujarat

Medical facility per 1000000 population					
Regions	CG*	NG*	S*	SG*	Gujarat
Allopathic Hospital	5	17	9	6	7
Hospital Allopathic Beds	5585	1529	956	1228	2528
Allopathic Doctors-Total Strength	77	150	203	211	164
Allopathic Para Medical Staff-Total Strength	249	456	584	488	438
Dispensary/Health Centre	17	26	18	13	16
Dispensary/Health Centre Beds	26	102	42	39	39
Dispensary/Health Centre Doctors	24	53	31	21	26
Dispensary/Health Centre Para Medical Staff	86	107	71	42	67

Census of India, 2011

*Note: CG= Central Gujarat, NG = North Gujarat, S = Saurashtra, SG = South Gujarat

Table 10: Health Infrastructure of selected States: Doctors and Specialists

	2005				2015			
	Doctors at PHCs				Doctors at PHCs			
States	Required	In Position	Vacant	Shortfall	Required	In Position	Vacant	Shortfall
Andhra Pradesh	1,570	2,137	360	0	1,069	1,412	858	0
Gujarat	1,070	848	222	222	1,247	889	615	358
Karnataka	1,681	2,041	196	0	2,353	2,196	157	157
Maharashtra	1,780	3,158	0	0	1,811	2,937	72	0
	2005				2015			
	Surgeons, Physicians & Paediatricians				Surgeons, Physicians & Paediatricians			
	Required	In Position	Vacant	Shortfall	Required	In Position	Vacant	Shortfall
Andhra Pradesh	656	224	182	432	716	159	225	557
Gujarat	1,088	92	229	996	1,280	74	0	1,206
Karnataka	1,016	691	152	325	824	502	322	322
Maharashtra	1,528	1,099	888	429	1,440	578	245	862

Source: Rural Health Statistics 2015

However, the availability of doctors and para-medical staff per ten lakhs population is less than compared to those in other three regions. Similar is the case of Dispensary and health centres. There is need to upgrade medical facilities in the Central and South Gujarat sub regions. Although the initiative of 108 medical service is playing major role in providing treatment on time, there is a strong need to expand the base of health infrastructure in Gujarat.

The table 10 shows the status health infrastructure of the selected states. It clearly shows that the shortfall of the doctors and specialists in Gujarat has increased over a decade. Compared to Andhra Pradesh and Karnataka, the state lacks the adequate human resources in health sector.

Table 11: Educational facilities across the sub regions of urban Gujarat, 2011

Region	Govt. Primary School	Private Primary School	Primary School	Govt. Senior Secondary School	Private Senior Secondary School	Senior secondary school
CG*	15	15	30	2	4	6
NG*	22	16	38	5	7	12
S*	17	27	44	3	6	9
SG*	12	13	25	2	7	9
Gujarat	15	18	33	2	6	8

Source: Census of India: 2011

*Note: CG= Central Gujarat, NG = North Gujarat, S = Saurashtra, SG = South Gujarat

Educational facilities play an important role in developing society healthy and knowledge. As far as education facilities are concerned, North Gujarat stands first in providing such facilities serving unit population. The government primary schools are prevalent in North Gujarat and Saurashtra. North Gujarat has better status of government primary schools while Saurashtra possess better status for private primary schools. Secondary schools facilities catering unit population are more prevalent in North Gujarat. Availability of such facilities has also transformed in better literacy rates. Urban North Gujarat has the highest literacy rates compared to those in other sub regions (Table 12).

Table 12: Literacy rates across urban sub regions of Gujarat

Region	Adult Literacy Rate
CG*	77.7
NG*	79.6
S*	77.3
SG*	76.1
Gujarat	77.2

Source: Census of India: 2011

*Note: CG= Central Gujarat, NG = North Gujarat, S = Saurashtra, SG = South Gujarat

The Central Gujarat is lagging behind in educational facilities. The lack of infrastructural facilities has reflected in comparatively lower literacy rates in sub-regions of Gujarat.

Conclusion

The above analysis indicates that there is a variation among the sub regions of Gujarat as far as urbanization trend, pattern and availability of basic facilities is concerned in the urban areas of Gujarat. Rapid urbanization in few pockets has increased the regional imbalance within the state. Further, those rapidly urbanised sub regions do not fulfil the requirement of additional availability of facilities. One can name such process as Pseudo-urbanization in which the urban areas fail to provide adequate urban services to their population due to urban explosion or over urbanization. If such lacunae are not filled up, it would lead to further imbalances within the state in providing effective and efficient basic services. Such disparity will result in inequality in human development of people residing in various parts of urban areas. Therefore, there is an immediate need to allot financial resources for developing basic social infrastructure to improve

the human development of the urban dwellers in the state. It is recommended that there is a strong need to focus on the allocation of basic services in Central and South Gujarat.

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