

A SPATIO-TEMPORAL ANALYSIS OF URBANIZATION IN KERALA, INDIA

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ABSTRACT

Urbanization is the process of transformation of the rural agrarian population to largely industrial and service population. Last five decades have experienced an exponential growth of urban areas and urban population over the world. India also had undergone the process of urbanization in this period and the growth of urban population and urban areas was very rapid in some areas and lagged in some other areas.

Kerala is a piece of land which has several peculiarities in natural and cultural aspects. Urbanization in Kerala is quiet interesting as it lagged below the national average up to 2001 census, but shown a rapid growth in 2011 census with a increase of nearly 100 per cent of its urban population in a decade. The urbanization in the state is not evenly distributed. Some districts are still the proportion of urban population below 10 percent and some others have above 60 per cent. This is an attempt to outline the spatial and temporal variations of the urbanization in the state

Keywords: *Adolescents, self-concept, Gender, Age Groups.*

1 INTRODUCTION

In India, urbanization has a slow pace with only 31.16 percent of total population living in urban places. It has shown only a small growth from 27.81 in 2001 to 31.16 in 2011 census. But Kerala had shown a drastic hike in the population proportion in the urban areas among the states. It attained fourth position in 2011 from 12th position in 2001 census. Goa, Mizoram and Tamil Nadu maintained their first, second, and third position respectively in the consecutive 2001 and 2011 census. Himachal Pradesh, Bihar, and Odisha have also sustained their positions as the least urbanized states in the country.

Kerala is one of the most urbanized states in India. Urbanization is 47.71 per cent which is fourth in 29 states of India. In 2001 census there was only 25.96 percent urbanization, while in the 2011 census the urbanization became 47.71 with 59 statutory and 461 Census towns. It indicates the rapid urban development of the state. Urbanization in Kerala is quite interesting, it was only 26.39% in 2001 and in 2011; it almost doubled to 47.72 per cent, which means nowadays almost half of the Kerala population lives in urban areas. The number of towns in the State increased three times during 2001 to 2011. The spatial distribution of urban areas in Kerala shows that, the coastal and midland regions have the highest concentration of urban areas. The study of urbanization in terms of the spatial and temporal aspects is paramount important in the urbanization process of India as well as Kerala.

2. OBJECTIVES

The present study has some objectives, based on which the entire organization of the study is made. The main objectives of the study are as follows:

- To analyze the growth of urbanization in Kerala in different census period.
- To identify the areas of high rate of urbanization and the low rate of urbanization in district level.

3. METHODOLOGY

Methodology means that, the important methods and techniques used for conducting the study of “A Spatio-temporal Analysis of Urbanization in Kerala”. Secondary data collected from the Census Department, Govt. of India is used for this study. The census data at district level which is available in primary census abstract is used. Selected data is treated with some simple statistical methods for the preparations of graphs and choropleth maps in open access GIS platform.

4. STUDY AREA

Kerala, commonly known as the “God’s own country” is one of the 29 states in India with unique geographical, cultural and ecological characteristics. It is an archetype of India, with geographical and cultural variations. This greenish land stretches between the Western Ghats and Arabian Sea, with varying landscape from lagoons and coastal plains to high peaks.

As its uniqueness in the geographical conditions, the population of Kerala also maintains its unique place in Indian demography. It is a progressive civilization, which can compare with the developed countries in

terms of Urbanization, Human Development Index, Population Growth Rate, Sex Ratio and Literacy Rate. The total population of the state is almost equally divided between the rural and urban regions.

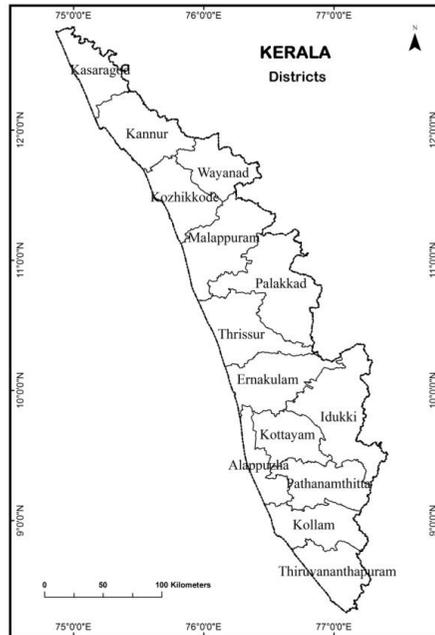


Fig.1 Kerala District map

5. RESULTS AND DISCUSSIONS

This section provides an overview of urban scenario in Kerala. According 2001 Census, the state has 25.96 per cent of population living in the urban areas and with 12th rank in national level. At present, the state is in 4th position with the 47.71 per cent of population living in urban places. The state has 59 statutory towns and 461 census towns, thus giving total of 520 towns in 2011. But in 2015 the number of statutory towns has grown up to 93 with 06 Municipal corporation and 87 Municipalities.

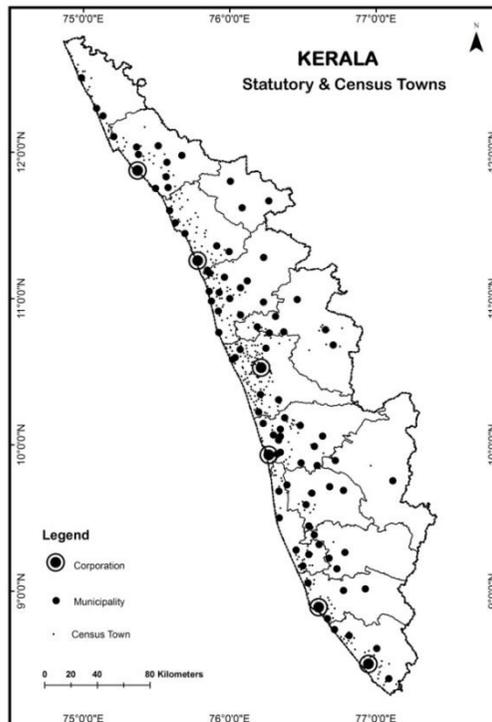


Fig. 2 Statutory and census towns in Kerala

Census of India identified 53 largest Urban Agglomerations in India which have population more than one million. Mumbai urban agglomeration stands on the top of the list with a population of 18,394,912 followed by Delhi (16,349,831), Kolkata (14,057,991), Chennai (8,653,521), Bangalore (8,520,435), Hyderabad (7,677,018) etc. and Kota of Rajasthan on the bottom. Kerala and Uttar Pradesh contribute the largest number of million plus urban agglomerations (seven each) followed by Maharashtra (six) and Tamil Nadu (four). Kochi, Kozhikode, Thrissur, Malappuram, Thiruvananthapuram, Kannur and Kollam are the million plus urban agglomeration from Kerala according to their rank.

Table: 1- Large Urban Agglomerations of Kerala

Urban Agglomeration	Population		Rank in India
	2011	2001	
Kochi	2,117,990	1,355,972	17
Kozhikode	2,030,519	880,247	19
Thrissur	1,854,783	330,122	21
Malappuram	1,698,645	170,409	25
Thiruvananthapuram	1,687,406	889,635	26
Kannur	1,642,892	498,207	27
Kollam	1,110,005	380,091	49

Source: Census 2001 and 2011

The table 1 represents the largest urban agglomerations in Kerala, with their populations in 2001 and 2011 and the current rank in India. Urban agglomerations constitute 36.35 per cent of the total population and the 76.20 per cent of the total urban population of the state. All these urban areas are concentrated on or near the coast and they are interconnected by road and railway networks.

5.1 Temporal Analysis

Kerala has a long history of urbanization as trade centers with the Middle Eastern and European countries. Kozhikode, Kochi and Kodungallur are notable in this respect. But the earlier origin didn't support the immediate expansion of the urban areas and the growth of urbanization in the state. The state has always lagged behind the national average in the rate of urbanization, but the recent trend has changed exponentially. The state has shown a boom in urbanization in both the urban population and the number of urban centers in last census. When the total urban population in the state almost doubled, the number of urban centers has increased to a more than three times.

In 1981, there were 106 towns with a population of 4771275, which worked out to 18.74% of the total population. By 1991, there were 197 towns with a population of 7680294 which worked out to 25.97% of the total population. Census 2001 recorded an urban population of 8267135 out of a total population of 31838619 spread over 159 towns which cover 26.4% of total population. The increasing trend in urbanization was however reversed in 1991-2001. But 2011 Census showed an increase in urban population from 8267135 to 15932171, which is a tremendous increase from 26.39% to 47.72%.

Table: 2- Population and its Growth from 1901-2011 in Kerala

Year	Population in Lakhs			Decadal Growth Rates			% of urban population
	Rural	Urban	Total	Rural	Urban	Total	
1901	59.4	4.5	63.9	--	--	--	7.04
1911	66.2	5.3	71.5	11.5	17.8	11.89	7.41
1921	71.2	6.8	78.0	7.6	28.3	9.09	8.71
1931	85.9	9.2	95.1	20.6	35.3	21.92	9.67
1941	98.3	12.0	110.3	14.4	30.4	15.98	10.87
1951	117.2	18.3	133.5	19.2	52.5	22.85	13.70
1961	143.5	25.5	169.0	22.4	39.3	24.72	15.08
1971	178.8	34.7	213.5	24.6	36.1	26.33	16.25
1981	206.8	47.7	254.5	15.7	37.5	19.20	18.74
1991	214.1	76.8	290.9	3.5	61.0	14.30	25.97
2001	235.7	82.7	318.4	7.7	10.1	9.45	26.39
2011	174.6	159.3	333.9	-25.96	92.72	4.86	47.72

Source: Various Census Reports

From the table 2, it is clear that the trend of growth in the proportion of urban population was very slow in Kerala up to 2001 census. But during 2011 census it shown a decadal growth rate of 92.72 which indicate

the urban population almost doubled during 2001 to 2011 and Kerala became the fourth most urbanized state in India.

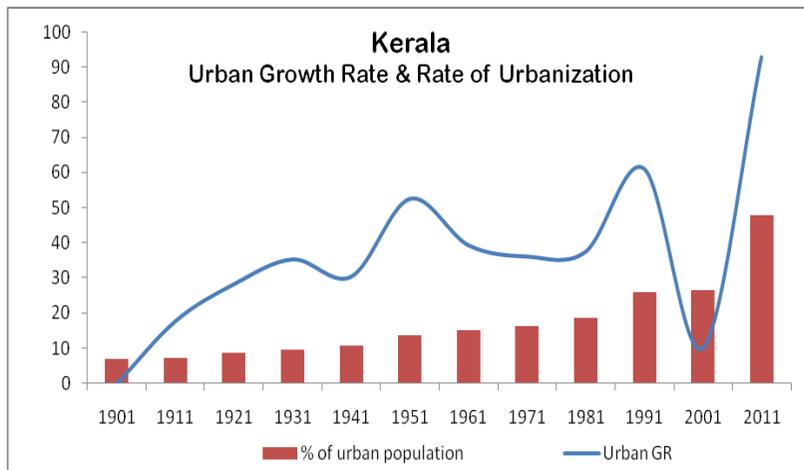


Fig. 3- Urban growth rate and rate of urbanization in Kerala

From fig. 3 it is clear that the proportion of urban population to total population had always shown increasing trend without any discontinuations, but the growth rate of urbanization has shown a considerable positive gradient only in 1951, 1991 and 2011. From 1901 to 1931 the trend was almost uniformly upward, but from 1931 to 1941 the trend is disturbed by the drop of growth rate from 34.58 to 30.47. From 1941 to 1951 the trend was again upward and attained 52.72, but the growth rate dropped continuously for three decades up to 1981. Again in the 1981 to 1991 it gained the momentum and rose to 60.97 which was the highest growth in the last century, and then plunged to 07.64 in 2001 which is the lowest growth rate for Kerala urbanization in census history. The next census, however has crossed all the limits by leaping to tremendous growth rate of 92.72 which is the largest growth rate in Indian urbanization among the states in 2011 census.

Table: 3 Trends in Urbanization of Kerala 1901-2011

Census Year	Number of Towns	Population (in crores)		% of Urban Population	Decennial growth
		Total	Urban		
1901	21(9)	0.64	0.04	7.11	--
1911	27(14)	0.71	0.05	7.34	+15.44
1921	44(23)	0.78	0.07	8.73	+29.78
1931	53(23)	0.95	0.09	9.64	+34.58
1941	62(23)	1.10	0.12	10.84	+30.47
1951	94(25)	1.35	0.18	13.48	+52.72
1961	92(30)	1.69	0.25	15.11	+39.89
1971	88(32)	2.13	0.35	16.24	+35.72
1981	106(48)	2.55	0.48	18.74	+37.64
1991	197(65)	2.91	0.77	26.39	+60.97
2001	159(60)	3.18	0.83	25.96	+07.64
2011	520 (59)	3.34	1.59	47.72	+92.72

Source: Census 2001 - 2011

Note: Number of statutory towns is given within brackets

5.2 District-wise Urbanization

Urbanization is not uniform throughout the state. District wise analysis of, urban population and the proportion of urban population to the total population imply the district wise differences in the urbanization. Proportion of urban population to the total population is highest in Ernakulum District with

68.07 per cent, followed by Thrissur and Kozhikode with slight differences i.e. 67.17 and 67.15 percentages respectively.

The other districts which have urban population greater than state average of 47.82 are Kannur (65.04) and Thiruvananthapuram (53.66). All other districts have urban population less than state average. The least urbanized districts are Wayanad (3.86), Idukki (4.69) and Pathanamthitta (10.99). Rest of the district recorded the proportion of urban population between 24 and 45 percentages.

Table: 4 District-wise Population Growth Rate and Urban Population (2011)

Districts	Pop_Total	Pop_Urban	Urban GR	% Urban to total Pop	% of total Urban Pop.
Thiruvananthapuram	3301427	1771596	62.28	53.66	11.1
Kollam	2635375	1187158	154.77	45.05	7.5
Pathanamthitta	1197412	131613	6.31	10.99	0.8
Alappuzha	2127789	1148146	84.75	53.96	7.2
Kottayam	1974551	565393	88.59	28.63	3.5
Idukki	1108974	52045	-9.63	04.69	0.3
Ernakulam	3282388	2234363	51.27	68.07	14.0
Thrissur	3121200	2096406	149.74	67.17	13.2
Palakkad	2809934	676810	89.81	24.09	4.2
Malappuram	4112920	1817211	410.21	44.18	11.4
Kozhikode	3086293	2072572	88.22	67.15	13.0
Wayanad	817420	31580	6.65	03.86	0.2
Kannur	2523003	1640986	35.29	65.04	10.3
Kasaragod	1307375	509047	117.82	38.94	3.2
Kerala	33406061	15934926	92.76	47.82	

Source: Census 2001 and 2011

Considering the percentage of urban population to the total urban population of Kerala, the district Ernakulam again stands on top with 14 per cent of the urban population of the state is concentrated in the district. The other districts which have higher proportion of the urban population are Thrissur (13.2), Kozhikode (13.0), Malappuram (11.4), Thiruvananthapuram (11.1) and Kannur (10.3). These six districts contribute 73 per cent of the total urban population of the state. On contrarily the least urbanized districts Wayanadu, Idukki, Pathanamthitta, Kasargode, Kottayam and Palakkad all together contribute only 12.2 per cent of the total urban population of the state which is significantly lesser than the single urban population of Ernakulam, Thrissur and Kozhikkod. This gives a clear-cut picture of inter district variations of the urbanization in Kerala.

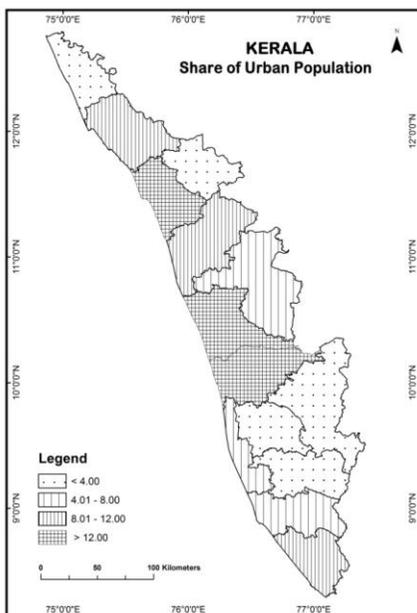


Fig. 4 Share of urban population to total

Table 5 Urbanization across the district of Kerala

Sl. No.	Level of Urbanization	Districts
1	Above 60%	Ernakulum, Thrissur, Kozhikode, Kannur,
2	40% to 60%	Alappuzha, Thiruvananthapuram, Kollam, Malappuram.
3	20% to 40%	Kasaragod, Kottayam, Palakkad
4	Below 20%	Idukki, Wayanadu, Pathanamthitta.

Urbanization in Kerala shows noticeable peculiarities. Generally, increase in urban population growth rate is not only the result of over-concentration in the existing cities, but also increase in the number of urban areas. The million-plus urban agglomerations have shown a remarkable growth in the population which contribute 76 per cent of the total urban population of the state. It was only 54.5 per cent in the census 2001. However, the increase in the number of urban areas as well as urbanization of the peripheral areas of existing major urban centers are also contributed much to attain the current situation.

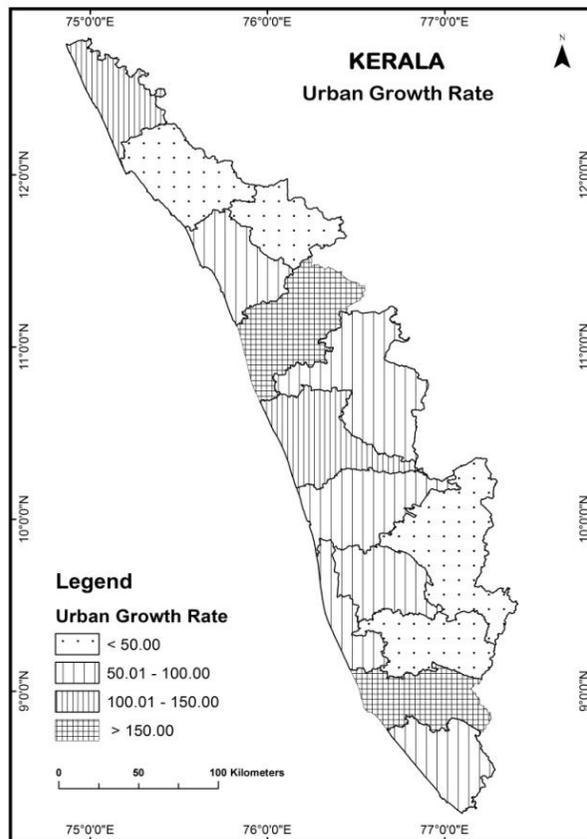


Fig. 5 Growth rate of urban population

The settlement pattern of Kerala is very unique. In most of its parts, it is an uninterrupted stretch of habitation without much open lands or agricultural fields which separate the settlement areas. So the settlement pattern in the state itself is a representation of urbanization or semi-urbanization. As a result, several scholars call Kerala as a land of semi urbanization. Moreover, there are not many variations in the availability of infrastructural facilities to the population in rural and urban settlements, especially in the case of access to transportation, educational and health care facilities.

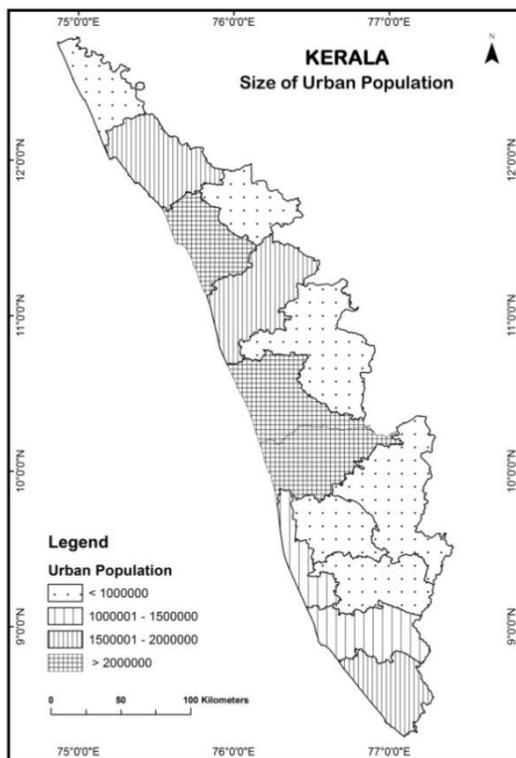


Fig. 6 Size of urban population in Kerala

Table: 6 District wise Classification of Towns in Kerala (2011)

Districts	Statutory Towns	Census Towns	Total	Statutory Towns (2016)
Thiruvananthapuram	5	26	31	4+1
Kollam	3	24	27	4+1
Pathanamthitta	3	1	4	04
Alappuzha	5	33	38	06
Kottayam	4	13	17	06
Idukki	1	-	1	02
Ernakulam	9	47	56	13+1
Thrissur	7	128	135	7+1
Palakkad	4	17	21	07
Malappuram	5	39	44	12
Kozhikode	3	48	51	7+1
Wayanad	1	-	1	03
Kannur	7	60	67	9+1
Kasaragod	2	25	27	03
Kerala	59	461	520	93

Source: Census Reports 2001 and 2011& State Election Commission, Kerala (+Number = Municipal Corporation)

The urban population increase was the result of a drastic increase in the numbers of urban areas during the last decade. As the latest record, Kerala has 93 statutory towns (87 municipalities and 6 municipal corporations) and 461 census towns. In the number of statutory towns Ernakulam district leads with 14 (13 municipalities and a municipal corporation) followed by Malappuram (12 municipalities), Kannur (9 municipalities and a municipal corporations) and Thrissur (7 municipalities and a municipal corporation). In the case of census towns Thrissur district stands on top with 128 followed by Kannur (60), Kozhikkode (48), Ernakulam (47) and Malappuram (39). Idukki and Wayanadu stands on the bottom of the list with 02 and 03 statutory towns respectively and with no census towns.

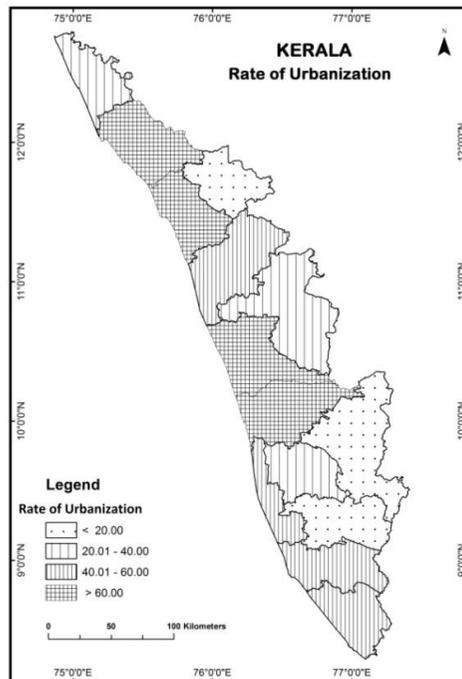


Fig. 7 Rate of urbanization in Kerala

CONCLUSIONS

Kerala has an urban share of nearly 50 percent in 2011 and has the highest growth rate of urban population during the last decade among the major states of India. The districts of Kerala also have a huge growth in their urban population and the highest growth rate was observed in Malappuram with 410 percentage growth and the least growth rate is shown by Idukki with -9 percentage growth i.e. little less urban population than 2001. This huge variations in inter district urbanization worth further detailed studies in terms of determinants and impacts.

As the majority of the towns of Kerala are census towns, they are not administrated by urban bodies. The institutional reallocation from village panchayats to town panchayats along with a proper legal support is essential to manage the challenges of this situation.

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