

Urbanisation in Kerala- A Dynamic Process

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ABSTRACT

Urbanization is a complex and dynamic process that involves the growth and expansion of urban areas as a result of increasing population densities and the migration of people from rural to urban regions. It encompasses various socio-economic, cultural, and environmental changes that accompany the transformation of a society from primarily agrarian and rural to predominantly urban and industrial. The process of urbanization is closely linked to economic development, as cities often serve as centers of commerce, industry, and innovation, attracting diverse populations seeking better employment opportunities, education, and living standards. The patterns and pace of urbanization vary significantly across different regions and historical periods, influenced by factors such as economic structures, cultural norms, and geographical conditions, government policies. In some regions, urbanization has been characterized by the rapid growth of megacities, while in others; it has involved more dispersed urban expansion, with small and medium-sized towns playing a significant role. India, in particular, has been experiencing rapid urbanization in recent years, fundamentally altering the country's social and economic dynamics. The state of Kerala, located in the south western part of India, presents a unique pattern of urbanisation closely related with its distinctive topography and socio-economic factors. This paper examines the trends in Kerala's urban population growth, growth of towns and the tempo of urbanisation, based on data available from the Census of India. The findings indicate that many urban clusters in Kerala are influenced by its diverse topography, leading to a predominance of dispersed rather than concentrated urban centers. Understanding these temporal shifts and spatial variations is crucial for policymakers and urban planners to effectively address the challenges and issues associated with increasing urbanization. By gaining insights into these patterns, decision-makers can develop more targeted and efficient strategies to manage urban growth, improve infrastructure, and enhance the overall quality of life for urban residents.

Keywords: Urbanisation, Urban Growth, Growth of Towns, Tempo of Urbanisation

I. INTRODUCTION

Urbanization is an inevitable and undisputed concept to be discussed while demography of any place of the world is examined. The process of urbanization is a long, progressive one which shows the concentration of people in the urban demarcated area, along with categorization of new areas as urban and the resultant population growth in a spatial unit. Urbanisation is

indeed a demographic process as places are demarcated as urban or rural on the basis of their demographic characteristics such as population distribution, density, and occupational structure. The process today is not just a demographic process, but one which has the potential to drive economical as well as social development of a place. Thus urbanisation is process driven by a combination of

factors, including economic opportunities, better living standards, and improved infrastructure, which collectively attract individuals from rural areas to cities (UN, 2018). The word Urbanisation is derived from Latin word “urbs” meaning city. Urbanisation is a finite process, a cycle through which a nation passes as they evolve from agrarian to industrial society (Davis, 1962).

The history of urbanisation dates back to the Neolithic ages, when men started to have permanent settlement with agriculture and livestock rearing as the major occupations, and hence the ancient cities were located on river banks (Tellier, 2019). Slowly another form of cities like fortified cities, segmented towns came to existence as the society advanced. Later industrial revolution changed the concept of cities and cities became synonyms for industrial centres. Growing employment opportunities attracted migrants to cities and thus the existing ones started to become overcrowding with poor amenities and social infrastructure. Aftermath was twentieth century witnessing huge explosion in urban demography. Now urbanisation is a rapid phenomenon in developing nations and is unplanned to a level, whereas developed nations have matured urban centres.

The growth of urban share of population in the world is explicit from the statistics of world share of urban population. Table 1 shows the percentage share of urban population to total population in the world. In 1950, 29.6% of the world population was urban which became 33.8% in 1960, 36.6% in 1970, 39.3% in 1980, 43% in 1990, 46.7% in 2000, and 51.7% in 2010. In the year 2007, world urban population outnumbered rural population for the first time. It is projected that by the year 2050, 68.4% of the world will be having urban population (WUP, 2018.) Half of the world urban population is contributed by China, India, USA, Brazil, Indonesia, Japan and Russia. (UN-Habitat, 2022)

Table 1 Urban Population of the World – 1950-2050
(Percentage)

Year	% Urban
1950	29.6
1960	33.8
1970	36.6
1980	39.3
1990	43
2000	46.7
2010	51.7
2020	56.2
2030	60.4
2040	64.5
2050	68.4

Source: World Urbanisation Prospects, 2018

Urbanisation in India

Urbanisation in India traces its root to 3000-1500 BC as there existed cities in Indus valley civilization, especially in Harappa and Mohenjo-Daro. During this first phase, urban centres were primitive in nature, but well executed drainage and water supply system existed there (Chander 2003). In the 6th Century BC, second phase of urbanisation in India started which had trade, coinage and birth of new Magadha kingdom as catalyst. The third phase of the Indian urbanisation was controlled by the British's as the colonies started to have more cities and infrastructures that still works as an acting force behind Indian urbanisation. The Census of India has categorised the places as urban on the basis of following criteria.

- Not less than a population of 5000 persons
- Not less than 400 persons living in a square kilometre
- At least 75% of the total male population should be engaged in non- primary activities

Table 2 shows the growth of urban population in India over time. In 1951, only 17.3% was urban,

which accreted to 18% in 1961, 19.9% in 1971, 23.3% in 1981, 25.7% in 1991 and 27.8% in 2001. Currently, as per the last Census of 2011, 31.2 % of Indian population are urban in nature.

Table 2 Urban Population of India – 1951-2011 (Percentage)

Year	% Urban
1951	17.3
1961	18
1971	19.9
1981	23.3
1991	25.7
2001	27.8
2011	31.2

Source: Census of India

Urbanisation in Kerala

Urbanisation in Kerala can be traced its root in the early existed three princely states, Travancore, Cochin and Malabar. During British rule, Malabar was handed over to Madras State and they started developing Travancore as administrative Centre, Cochin as a port city and Malabar, especially Kozhikode as a commercial centre. These three clusters of city centre are dominating urban pattern of Kerala as major urban population is found in Thiruvananthapuram, Kochi and Kozhikode districts. After state reorganisation, Thiruvananthapuram was granted status of State capital, Cochin maintained the status of Port city with added privilege of Naval Base and Kozhikode remained as the commercial centre. Post independence, social development acted as a catalyst for urbanisation in Kerala. After that, higher literacy rate lead to a sudden shift from primary to non-primary occupational structure, which resulted in better financial conditions, and started reflecting in the infrastructure and amenity requirements of the people. Hence, it is very difficult to distinguish a rural and urban settlement in Kerala because of less disparity in distribution of facilities throughout the state (DTCP, 2012). Besides, smaller size of the state as

well as higher population, compared to other counterparts provided the state with high population density too. All this culminated in the speedy urbanisation of the state.

According to the Census of 2011, the State of Kerala has 47.2% of its population as urban against 13.48% in 1961 Census. In 2001, Kerala stood at 19th position in the rank of urban population in India, which is now raised to 9th position in 2011 Census, showing the pace of urbanisation in Kerala. This paper deals with urbanisation in Kerala, realising its importance in the state's dynamic demographic pattern as only urban population constitutes nearly half of the total population. The variables used for the study area will be analysed for the years 1991, 2001 and 2011 and they are; total urban population, decadal growth rate, number of corporation, municipalities, urban agglomerations and census towns. Here the study aims to find out; distribution of urban population and its decadal growth rate, distribution of corporation, municipalities, urban agglomerations and census towns in the study area and tempo of urbanisation. To find out the tempo of urbanisation following formula has been used (Lal& Nair, 2017)

$$\frac{(U_2/T_2) - (U_1/T_1)}{(U_1/T_1)} \times 100 \dots \text{Equation No (1)}$$

Here, U₂ is the urban population of the current year, U₁ is the urban population of the previous year, T₁ and T₂ = Temporal difference between Census years.

II. METHODS AND MATERIAL

This study relies on secondary data sources, derived from the Census reports published by the Government of India. These reports offer comprehensive demographic, socio-economic, and geographical information, collected through periodic population censuses. Additionally, the State Urbanisation Report,

published by the Government of Kerala, providing valuable insights into the state's urbanization processes and trends is taken for the study. In 1991 there were 61 taluks and by 2001 it has been increased to 63. To facilitate data analysis, Microsoft Excel has been employed for the creation of graphs and tables, while ArcGIS Desktop v10.5 software has been utilized for map preparation.

Study Area

The state is located in the south-western part of India. The state is bounded by Karnataka state in the north, Tamil Nadu state in the east and south and the Lakshadweep Sea in the west and a long range of mountains called the Sahyadri (a part of Western Ghats) in the east. At the time of re-organisation there were 9 districts in the state. Districts were further re-organised in subsequent years. At present, there are 63 taluks in Kerala (Figure 1). The coastal length of the state is 560 km. The East West width of the state varies from 15 to 120 km. Within a limited area of 38,863sq.km, there is a very wide variation in its physiography. On the basis of altitude and physiographic features the state can be divided into Highland, Midland and Lowland (INAS 2001). The drainage network of Kerala consists of 44 short and swift-flowing rivers. The four major rivers are Periyar, Bharathapuzha, Pamba and Chaliyar together drain about 35percent of the state. Three east flowing rivers are Kabini, Bhavani and Pambar.

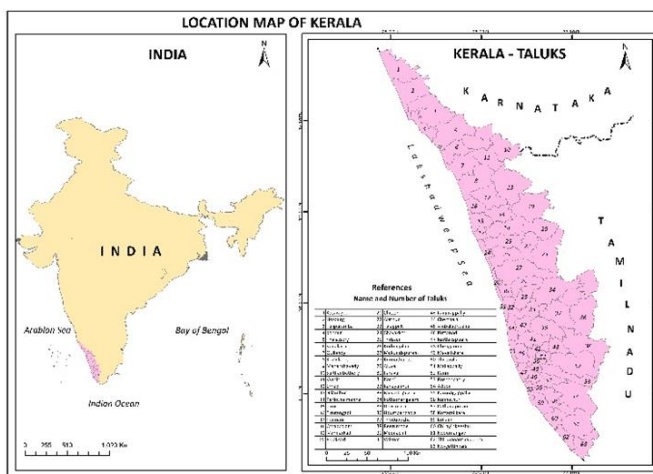


Figure 1

III.RESULTS AND DISCUSSION

Urban Demographic Change in Kerala

The state has witnessed significant increase in the number of people living in urban areas. Considering the data of Census 1991, 2001, and 2011 the percentage share of urban population and decadal growth rate have been calculated to understand the spatial pattern of distribution of urban population in the state. Table 3 shows the state's share of urban population from 1991 to 2011.

Table 3 Distribution of Urban Population in Kerala 1991 - 2011

Sl.no	Taluk	% of Urban Population		
		1991	2001	2011
1	Kasaragod	10.74	15.59	34.45
2	Hosdurg	22.25	23.42	43.82
3	Taliparamba	18.60	18.77	36.25
4	Kannur	82.28	82.00	95.01
5	Thalassery	50.35	49.52	63.49
6	Mananthavady	Rural	Rural	Rural
7	Sulthanbathery	Rural	Rural	Rural
8	Vythiri	0.30	11.86	12.08
9	Vadakara	1.79	19.05	65.07
10	Quilandy	Rural	9.99	53.48
11	Kozhikode	11.29	59.08	73.97
12	Ernad	1.85	21.77	34.73
13	Nilambur	Not formed	0.00	8.08
14	Perunthalmann	0.51	8.44	21.73
15	Tirur	0.64	6.43	48.73
16	Tirurangadi	Not formed	Rural	91.49
17	Ponnani	0.67	25.04	57.36
18	Ottapalam	1.09	10.85	26.95
19	Mannarkad	0.59	Declassified	9.06
20	Palakkad	2.34	34.45	47.95
21	Chittur	0.85	15.96	16.20
22	Alathur	Rural	Rural	6.00
23	Talappilly	0.36	9.60	53.80
24	Chavakkad	1.54	30.57	73.67
25	Thrissur	4.83	51.20	87.08

26	Kodungallur	1.33	31.38	85.82
27	Mukundapuram	1.31	15.63	45.69
28	Kunnathunad	0.32	6.12	43.28
29	Aluva	1.91	46.26	69.11
30	Paravur	3.53	64.96	93.36
31	Kochi	3.49	54.55	76.97
32	Kanayannur	7.26	82.85	96.13
33	Muvattupuzha	0.91	9.01	12.48
34	Kothamangalam	0.46	16.48	30.48
35	Devikulam	Rural	Rural	Rural
36	Udumbanchola	0.03	0.53	Rural
37	Thodupuzha	0.64	17.36	15.97
38	Peerumade	Rural	0.00	0.00
39	Meenachil	0.56	12.96	13.99
40	Vaikom	0.28	7.31	7.48
41	Kottayam	2.17	27.53	56.55
42	Chenaganacherry	0.68	14.78	35.98
43	Kanjirappally	0.48	Declassified	Rural
44	Cherthala	2.58	41.72	64.32
45	Ambalapuzha	3.78	64.13	76.44
46	Kuttanad	Rural	Rural	Rural
47	Karthikappally	0.87	16.84	70.57
48	Chengannur	0.34	12.37	26.53
49	Mavelikara	0.37	8.54	33.65
50	Thiruvalla	0.71	24.24	23.66
51	Mallappally	Rural	Rural	Rural
52	Ranni	Rural	Rural	Rural
53	Kozhancherry	0.47	10.85	14.64
54	Adoor	0.84	9.52	9.63
55	Karunagappally	0.20	4.16	66.33
56	Kunnathur	Rural	Rural	Rural
57	Pathanapuram	0.60	10.91	10.79
58	Kottarakara	Rural	Rural	5.08
59	Kollam	5.00	41.42	83.65
60	Chirayinkeezhu	1.19	12.15	31.18
61	Nedumangad	0.65	8.88	18.12
62	Trivandrum	10.43	77.26	91.89
63	Neyyatinkara	0.73	11.43	46.38
	Kerala	26.39	25.96	47.70

Source: Compiled by the Researcher

Urban Population Distribution 1991-2011

Taluk wise share of urban population is discussed in this section as it is necessary to understand the spatial variation in the distribution of urban population in the state. Spatial pattern of urban population in Kerala is categorised into three classes:

Low- Below 30%, Moderate - 30%- 60% and High- Above 60%

For all the three census years, there are exclusively rural taluks in Kerala which are marked separately as “rural” in the maps given, and hence are excluded from the analysis.

In 1991, 26.4% of population in Kerala was urban in character. Eleven taluks including Mananthavady, Sulthanbathery, Quilandy, Alathur, Devikulam, Peerumade, Kuttanad, Mallapally, Ranni, Kunnathur and Kottarakara had no urban population and remained rural. Udumbanchola has the least share of 0.53% and the highest share was recorded in Kannur with 82.27%. Thirty six taluks like Kasaragod, Hosdurg, Taliparamba, Chavakkad, Kothamangalam, Ottapalam etc falls in low category of urbanisation. Medium share of urban population is distributed in eight taluks such as Thalassery, Kodungallur, Thrissur, Palakkad, Aluva, Cherthala. Kochi and Kollam. Taluks such as Kozhikode, Kannur, Kanayannur, Ambalapuzha, Paravur and Thiruvananthapuram were classified in the high urbanization category, as they had an urban population exceeding 60%.

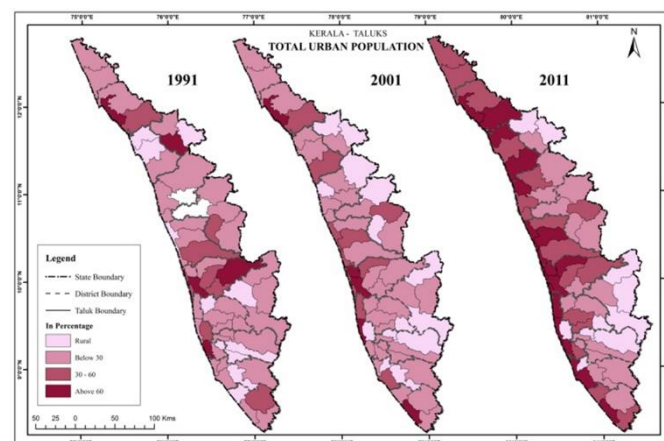
During 2001 Fourteen taluks like Mananthavady, Sulthanbathery, Nilambur, Tirurangadi, Alathur, Devikulam, Peerumade, Mannarkkad, Kuttanad, Mallapally, Ranni, Kanjirappally, Kunnathur and Kottarakara had no urban population, due to their rural character, or declassification from urban status. As same as 1991, least was recorded in Udumbanchola (0.53%) and highest was recorded in Kanayannur (82.84%) during 2001. The entire state got a decline in urban population as many of the census towns were declassified during 2001 Census. Low urban population is distributed in thirty four taluks like Thiruvalla, Thodupuzha, Karthikapally, Kottayam,

Ernad, Kasaragod etc. Ten taluks such as Thalassery, Thrissur, Aluva. Kochi. Cherthala, Kollam etc have moderate urban population. Kozhikode, Thiruvananthapuram, Kannur, Paravur, Ambalapuzha, Kanayannur and taluks comes in high category.

In 2011, 47.7% of Kerala's population is urbanised. Ten taluks like Mananthavady, Sulthanbathery, Devikulam, Peerumade, Udumbanchola, Kanjirapally, Kuttanad, Mallapally, Ranni and Kunnathur had no urban population hence come under the category of rural. Least urbanised taluk is Kottarakkara (5.08%) and the highest urbanised taluk is Kanayannur with 96.13%. Eighteen taluks like Kottarakkara, Alathur, Vaikom, Nilambur, Mannarkkad, Adoor, Vythiri, Muvattupuzha etc have low urbanisation rate of below 30%. Medium urban share is experienced in seventeen taluks like Kothamangalam, Chirayinkeezhu, Mavelikkara, Kasaragod, Ernad, Changanassery, Taliparamba, Kunnathunad etc. High level of urbanisation is seen in eighteen taluks such as Thalassery, Cherthala, Vadakara, Karunagapally, Aluva, Thiruvananthapuram, Kozhikode etc. Figure 6.1 Shows that urban population distribution has increased significantly in 2011 except the taluks which falls with major are in highland physiographic like Mananthavady, Sulthanbathery, Devikulam, Peerumade etc all the other taluks are experiencing medium to high level of urban population.

Central and Northern Kerala have high level of urban population, where western part of the state, occupied by the lowlands have more concentration of urban population than its eastern counterpart, constituted more by forests. Almost thirty five taluks out of Sixty three in Kerala comes under moderate to high urban population indicating the dispersed nature of urbanisation in Kerala rather than development of limited urban pockets in the state.

Decadal Growth rate of Urban Population



Decadal growth rate is a critical parameter as it shows

Figure 2

the increase or decrease in a particular population parameter over a period of ten years. Decadal growth rate of urban population and its taluk wise distribution is significant in understanding which taluks have positive growth, and whether there exists any negative growth as well as the magnitude of growth in a particular decade. The decadal growth rate of urban population for all the taluks for 1991-2001 and 2001-2011 are given in the table 4.

Table 4. Decadal Growth Rate of Urban Population in Kerala 1991 - 2011

Decadal Growth Rate of Urban Population in Kerala 1991 - 2011(in %)					
Taluks	1991 - 2001	2001 - 2011	Taluks	1991- 2001	2001 - 2011
Kasaragod	65.82	144.18	Muvattupu zha	-58.00	43.52
Hosdurg	16.32	99.38	Kothaman galam	4.61	95.48
Taliparam ba	9.64	103.53	Devikulam	Rural	Rural
Kannur	6.40	21.52	Udumbanc hola	10.26	-100.00
Thalassery	4.17	33.47	Thodupuz ha	13.32	-5.86
Manantha vady	Rural	Rural	Peerumade	Rural	Rural
Sulthanba thery	Rural	Rural	Meenachil	21.35	8.69

Vythiri	29.03	6.65	Vaikom	3.91	2.62
Vadagara	-9.87	260.42	Kottayam	3.80	106.68
Quilandy	Newly Formed	464.56	Chenaganacherry	-0.91	146.29
Kozhikode	4.76	36.10	Kanjirappally	Declassified	Declassified
Ernad	19.83	85.66	Cherthala	9.08	61.31
Nilambur	Newly Formed	Newly Formed	Ambalapuzha	-2.51	23.00
Perunthalamanna	14.31	195.40	Kuttanad	Rural	Rural
Tirur	8.49	743.39	Karthikapally	2.14	318.32
Tirurangadi	Newly Formed	Newly Formed	Chengannur	-1.84	106.25
Ponnani	69.01	148.98	Mavelikara	0.49	294.34
Ottapalam	9.00	174.81	Thiruvalla	3.76	-6.96
Mannarkkad	Declassified	Newly Formed	Mallappally	Rural	Rural
Palakkad	9.63	48.72	Ranni	Rural	Rural
Chittur	3.90	4.35	Kozhancherry	5.93	30.39
Alathur	Newly Formed	Newly Formed	Adoor	-55.02	0.76
Talappilly	105.83	497.97	Karunagapally	10.61	1567.13
Chavakkad	16.90	150.16	Kunnathur	Rural	Rural
Thrissur	14.50	79.46	Pathanapuram	2.07	-1.13
Kodungallur	-7.33	182.42	Kottarakara	Newly Formed	Newly Formed
Mukundapuram	23.49	204.83	Kollam	4.51	105.70
Kunnathunad	7.62	664.92	Chirayinkeezhu	-16.68	158.78
Aluva	40.49	57.39	Nedumangad	12.56	108.28
Paravur	-8.37	54.23	Trivandrum	7.50	21.77
Kochi	2.71	42.13	Neyyattinkara	75.89	316.06
Kanayannur	17.38	25.01	Kerala	7.64	92.76

Source: Compiled by the Researcher

Decadal Growth rate of urban Population in 1991 - 2001

Figure 3 shows decadal growth rate of urban population in Kerala from 1991 to 2001. For the decade of 1991-2001, the growth rate of urban population in Kerala was 7.64% .For the analysis, urban decadal growth rate in 1991- 2001 is categorised based on the following criteria;

Negative Growth - Below 0, Low- 0 – 20, Moderate - 20-40 and High- Above 40

Newly Formed Taluks are represented separately in the map, as less than zero value will be taken by both newly formed as well as rural taluks. Hence, Rural taluks and newly formed are shown in different shades in the map. From 1991- 2001, 13 taluks like Mananthavady, Sulthanbathery, Quilandy, Tirurangadi, Nilambur, Devikulam, Alathur, Peerumade, Kuttanad, Mallapally, Ranni, Kunnathur, Kottarakkara remained rural and hence excluded from the growth rate calculation. Quilandy is the only newly formed taluk in 2001.

Table 4 shows that during 1991 – 2001 negative growth could be found in eleven taluks of Mannarkkad, Muvattupuzha, Kanjirapally, Chirayinkeezhu, Adoor, Vadakara, Paravur, Kodungallur etc. Here Mannarkkad and Kanjirapally taluks were declassified in 2001. Least growth rates has found in thirty one taluks such as Mavelikkara, Pathanapuram, Karthikapally, Kochi, Thiruvalla, Kottayam, Chittur, Vaikom , Ernad, Kanayannur, Chavakkad, Hosdurg Thrissur etc. Moderate growth rate found in the taluks namely Vythiri, Mukundapuram and Meenachil. Highest decadal growth rate during this decade can be found in Aluva, Kasaragod, Ponnani, Talappilly and Neyyattinkara taluks.

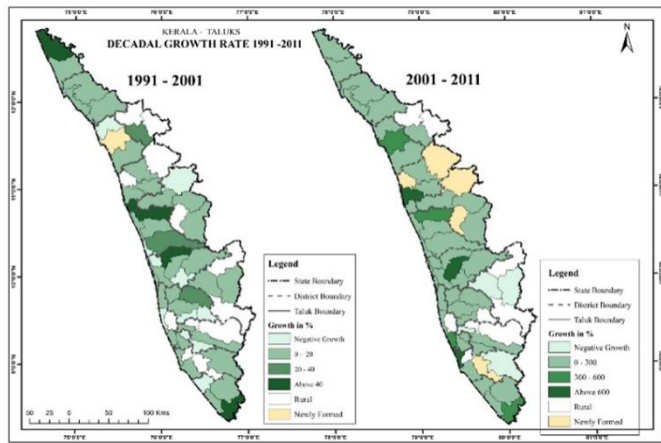


Figure 3

Decadal Growth rate of urban Population in 2001 – 2011

Figure 3 shows decadal growth rate of urban population in Kerala from 2001 to 2011. For the decade of 2001 - 2011, the growth rate of Kerala was 92.76%.

For the analysis, urban decadal growth rate in 2001 - 2011 is categorised based on the following criteria: Negative Growth – Below 0, Low - 0-300, Moderate - 300 – 600 and High- Above 600

Newly Formed Taluks are represented separately in the map, as less than zero value will be taken by both newly formed as well as rural taluks. Hence, Rural taluks and newly formed are shown in different shades in the map. From 2001- 2011, 14 taluks like Mananthavady, Sulthanbathery, Mannarkkad, Tirurangadi, Nilambur, Devikulam, Alathur, Peerumade, Kuttanad, Kanjirapally, Mallapally, Ranni, Kunnathur, Kottarakkara remained rural and hence excluded from the growth rate calculation. Among these taluks, Mannarkkad, Nilambur, Alathur, Tirurangadi and Kottarakkara are newly formed.

In 2001 – 2011, negative growth rate could be found in Udumbanchola, Thodupuzha, Thiruvalla and Pathanapuram taluks. Thirty eight taluks like Mavelikkara, Mukundapuram, Vadakara, Perinthalmanna, Kodungallur, Ottapalam, Chirayinkeezhu, Chavakkad etc. show low growth rate. Neyyattinkara, Karthikapally, Quilandy and

Talappilly taluks exhibits moderate growth rate. Tirur, Kunnathunad and Karunagapally taluks come under high growth rate.

Urban Morphology in Kerala

Urban Morphology indicates in which form urban settlements are located in an area. The forms in which urban settlements are present in Kerala will be discussed here are as follows;

- **Urban Agglomerations (UA):** UA is a continuous spread of urban area, consisting a town and its outgrowth or two or more contiguous towns with or without an outgrowth. One of the constituent towns must be statutory towns and aggregate of population of all this should not be less than 20,000.
- **Outgrowth:** It is viable definite unit within a village or an entire village, located in proximity to a statutory town, having urban amenities.
- **Municipal Corporations and Municipalities:** The term Corporation or Municipal Corporation and Municipality is not well defined in Census, as they are declared by the State Government to do administration in big cities with larger number of population. The division of Urban Local Body is part of State list according to 74th amendment of 1992. Kerala Municipality Act of 1994, part IX-A defines Municipality to administer smaller urban area, and Corporations to administer larger urban areas.
- **Class I towns:** Towns with a population of more than one lakh
- **Class II Towns:** Towns with population ranging from 50,000-99,999
- **Class III Towns:** Towns having a population between 49,999 and 20,000
- **Class IV Towns:** Towns with a population of range of 10,000 to 19,999
- **Class V Towns:** Towns having population between 5000-9999
- **Class VI Towns:** Towns with less than 5000 population

Urban Agglomerations and Outgrowths

The division of UA started in Census of India in the year 1981. In 1981, there were 9 UAs in Kerala, Which became 16 in 1991, and 17 in 2001 and 19 in 2011 (Figure 4). In 2011, existing three UAs Vadakara, Guruvayur and Kodungallur were declassified and six new UAs namely Ottapalam, Changanassery, Kayamkulam, Kothamangalam, Kasaragod, Chalakkudy got added in the list as exhibited in the Table 5.

Table 5 Urban Agglomerations and their Population-2011

Name of UA	District	Population	% share to total urban population
Thiruvananthapuram	Thiruvananthapuram	1687406	10.58
Kollam	Kollam	1110005	6.96
Alappuzha	Alappuzha	241072	1.51
Cherthala	Alappuzha	455408	2.85
Kayamkulam	Alappuzha	427091	2.68
Kottayam	Kottayam	357533	2.24
Changanassery	Kottayam	127971	0.8
Kochi	Ernakulam	2117990	13.29
Kothamangalam	Ernakulam	114574	0.71
Thrissur	Thrissur	1854783	11.63
Chalakkudy	Thrissur	114901	0.72
Palakkad	Palakkad	293566	1.84
Chittur-Thathamangalam	Palakkad	80563	0.5
Ottapalam	Palakkad	238238	1.49
Malappuram	Malappuram	1698645	10.65
Kozhikode	Kozhikode	2030519	12.74
Kannur	Kannur	1642892	10.31
Kasaragod	Kasaragod	192761	1.2
Kanhangad	Kasaragod	229706	1.44
Kerala		15015624	94.2

Source: Compiled by the Researcher

From the Table 5 it's clear that 94.2% of total urban population of the state is concentrated in 19 UAs of

the state showing their importance. Among the urban agglomerations, highest percentage is seen in Kochi (13.29%), followed by Kozhikode (12.74%), and Thrissur (11.63%). Among the Urban Agglomerations, along with the before mentioned three, Malappuram, Thiruvananthapuram and Kannur adds up to make more than 60% of total urban population of the state, indicating primacy of the major Urban Agglomerations in the state.

Outgrowths are listed only in 2011 Census report. According to 2011 Census, there are 14 Outgrowths in Kerala as listed in the table below. Out of 14 districts, only 8 districts have urban outgrowths as seen in the Table 6.

Table 6 District wise distribution of Urban Outgrowths -2011

Name of Outgrowths	District	Population
Kazhakkuttam	Thiruvananthapuram	18844
Kovalam	Thiruvananthapuram	25736
Neendakara	Kollam	16976
Eravipuram	Kollam	1474
Kalarkode	Alappuzha	28749
Vayalar	Alappuzha	24804
Thanneermukkom	Alappuzha	31525
Punnappra	Alappuzha	38066
Kedamangalam	Ernakulam	23155
Cheriyakadavu	Ernakulam	8352
Eriyad	Thrissur	26255
Anakkayam	Malappuram	33259
Koduvally	Kozhikode	30787
Elathur	Kozhikode	45329
Kadalundi	Kozhikode	42516
Puthiyangadi	Kozhikode	248
Neeleswaram	Kasaragod	24787
Cheruvathur	Kasaragod	27435
TOTAL		420862

Source: Census of India 2011

Kozhikode and Alappuzha districts have the highest number of outgrowths of 4. Two is each for Thiruvananthapuram, Kollam, Kasargod and Ernakulam. Malappuram and Thrissur have one out growth each. Outgrowths contribute 2.6 % of total

urban population of the state. Thus, urban Agglomeration and Outgrowths together contributes 97% of total urban population of the state.

Municipal Corporations

Municipal Corporations are granted the status of the same by State Government, without any particular population or area based parameters. Larger cities and agglomerations are normally brought under the administrative divisions of Corporations. According to 1991 Census, Kerala had 3 Municipal Corporations; Kozhikode, Kochi and Thiruvananthapuram. As per 2001 and 2011 Census, 5 Municipal Corporations exists in Kerala. Two Corporations demarcated newly were Thrissur and Kollam in the year 2000. The population details of the study area reveals 15.9% (2011 Census) of total urban population of the state is distributed within the 5 Corporations. Figure 6.5 shows the Corporations in Kerala State as per 2011 Census. Number of Corporations and its total population in Kerala is given in the Table.7.

Table7 Municipal Corporations in Kerala with Population (2011)

Name of Municipal Corporation	Population (2011)
Thiruvananthapuram	788271
Kollam	367107
Kochi	633553
Thrissur	315957
Kozhikode	431560
Total	2536448 (15.9%)

Source: Census of India, 2011

Municipalities

Same as the case of Municipal Corporations, Municipalities are also demarcated by the State Government. The following are the criteria to classify a town as a Municipality (State Urbanisation Report, 2012).

- 3/4th of the adult population of the area is engaged in non-primary activities
- Density of the population should not be less than 4000 persons/2059sq.km and total population should not be less than 20,000
- Per capita revenue resource of the locality should be more than Rs.5

In 1991, there were 56 Municipalities which became 53 in 2001 and 2011 Census. The list of Municipalities in Kerala according to 2011 Census is listed in the below Table 8.

Table 8 Municipalities in Kerala with their population -2011

Name of Municipality	Population	Name of Municipality	Population
Attingal	37346	Chavakkad	39098
Nedumangad	60161	Chalakkudy	49525
Neyyatinkara	70850	Guruvayur	20510
Varkala	40048	Iringalakkuda	28741
Paravur	31503	Kodungallur	33935
Punalur	46702	Kunnamkulam	54071
Adoor	29171	Chittur-Thathamangalam	32298
Pathanamthitta	37538	Ottapalam	53792
Thiruvalla	52883	Palakkad	130955
Alappuzha	174176	Shornur	43533
Cherthala	45827	Malappuram	68127
Chengannur	23466	Manjeri	97102
Kayamkulam	68634	Perinthalmanna	49723
Mavelikkara	26421	Ponnani	90491
Changanassery	47685	Tirur	56058
Kottayam	55374	Koilandi	71873
Palai	22056	Vadakara	75295
Vaikom	23466	Kalpetta	31580
Thodupuzha	52045	Kannur	56823
Aluva	22428	Koothuparamba	29619
Angamaly	33465	Mattannur	47078
Kalamassery	71038	Payyannur	72111

Kothamangalam	38837	Thalassery	92558
Moovattupuzha	30397	Thaliparamba	72465
North Paravur	31503	Kasaragod	54172
Perumbavur	28110	Kanhangad	73342
Thrippunithur	69390	TOTAL	2795395

Source: Census of India, 2011

Figure 4 shows that highest number of municipalities are found in Ernakulam district with (8 municipalities) followed by Thrissur and Kannur districts (6 municipalities), Alappuzha and Malappuram districts (5 municipalities), Thiruvananthapuram, Kottayam and Palakkad districts (4 municipalities), Pathanamthitta (3 municipalities), Kollam, Kozhikode and Kasaragod (2 municipalities), Wayanad and Idukki (1 municipality).

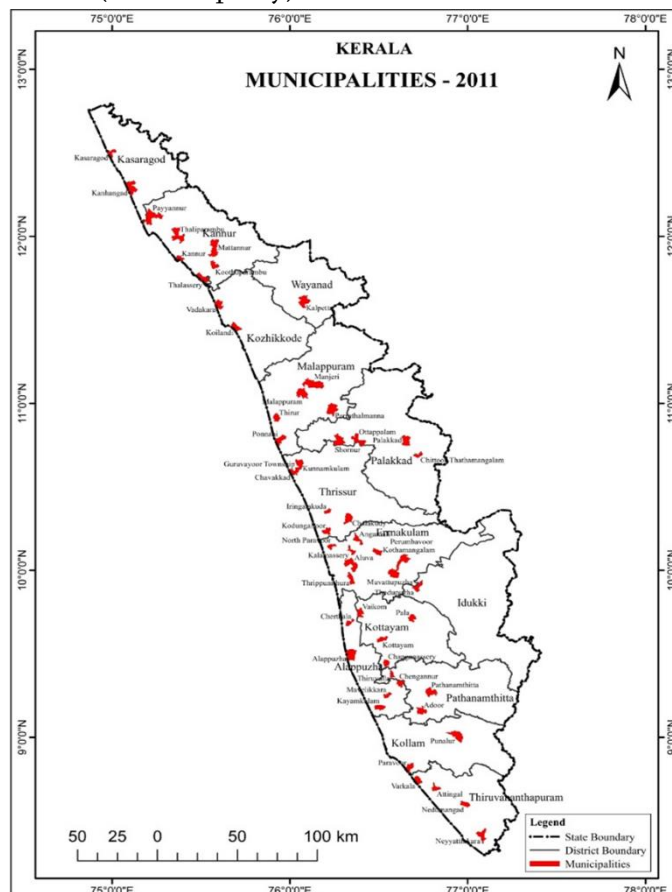


Figure 4

Census Towns

Census towns in Kerala represent a unique aspect of the state's urbanization process. These towns,

although not officially classified as municipalities or city corporations, exhibit urban characteristics based on specific criteria set by the Census of India. The criteria for classifying a settlement as a census town include:

1. A minimum population of 5,000.
2. At least 75% of the male working population engaged in non-agricultural activities.
3. A population density of at least 400 persons per sq.km.

These towns contribute significantly to the urban landscape of Kerala, reflecting the state's complex and dynamic urbanization process. Kerala has experienced substantial growth in the number of census towns over the past few decades. This growth is indicative of the broader urbanization trend in the state, characterized by the reclassification of rural areas and the expansion of urban zones. The distribution of census towns across Kerala highlights the state's uneven yet progressive urban development. Table 9 shows growth of number of towns in Kerala during 1991 – 2011.

Table 9 Growth of Number of Towns in Kerala 1991 – 2011

YEA R	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Tot al
	>1 lakh	(50,000 - 99,999)	20000 - 49999	10000 - 19999	5000 - 9999	<5000	
1991	7	20	100	53	16	1	197
2001	10	24	72	37	15	1	159
2011	9	29	254	159	61	8	520

Source: Census of India

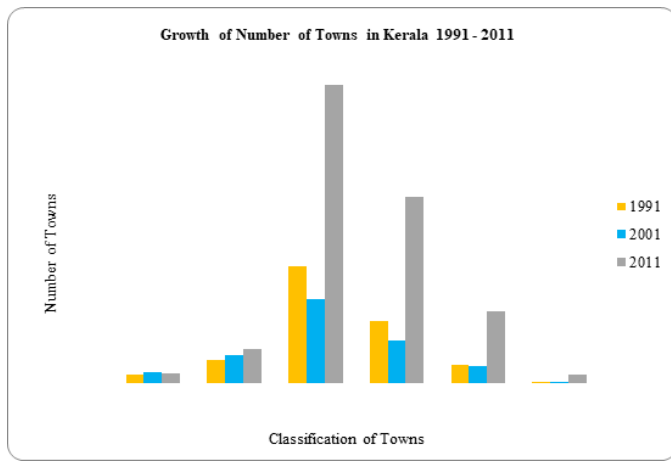


Figure 5

In 1991, Kerala had a total of 197 towns. However, due to reclassification, this number decreased to 159 in 2001. By 2011, the number of towns had surged to 520, reflecting a substantial urban expansion over two decades. Figure 5 shows the growth of number of towns in Kerala from 1991 to 2011.

Tempo of Urbanization

The tempo of urbanization, referring to the speed at which urbanization occurs, is a critical parameter for understanding the rate of change and the associated impacts on various aspects of urban life. This concept is fundamentally measured in two ways, one by measuring the area under urban land use and the other one is by the annual population growth rate within urban areas. Among the two, area under urban land use gives a physical measurement while the population parameter serves as a quantifiable indicator of how swiftly urban population is expanding. This rate encapsulates not only the natural population increase due to births and deaths but also the net migration rate, which includes both in-migration and out-migration. Analyzing the tempo of urbanization across different regions can reveal varied patterns and outcomes. . To find out the tempo or speed of urbanisation the following formula has been used (Lal&Nair, 2017).

$$\frac{(U_2/T_2) - (U_1/T_1)}{(U_1/T_1)} \times 100$$

Here, U₂ is the urban population of the current year, U₁ is the urban population of the previous year, T₁ and T₂ = Temporal difference between Census years.

Table 10 Tempo of Urbanisation in Kerala 1991 - 2011

Tempo of Urbanisation in Kerala 1991- 2011					
Taluk	1991-2001	2001-2011	Taluk	1991-2001	2001-2011
Kasaragod	45.2	120.99	Muvattupuzha	-60.98	38.57
Hosdurg	5.25	87.1	Kothamangalam	-14.29	84.94
Taliparamba	0.93	93.1	Devikulam	0	0
Kannur	-0.34	15.87	Udumbanchola	0.85	-100
Thalassery	-1.65	28.21	Thodupuzha	6.61	-8.04
Vadakara	-24.18	238.06	Peerumade	0	0
Quilandy	0	447.56	Meenachil	15.64	7.92
Kozhikode	-10.59	29.95	Vaikom	-0.91	2.35
Mananthavady	0	0	Kottayam	-3.12	105.38
Sulthanbathery	0	0	Changanassery	-9	143.46
Vythiri	15.28	-1.89	Kanjirappally	-100	0
Ernad	86.87	59.55	Cherthala	0.52	54.15
Nilambur	0	0	Ambalapuzha	-9.81	19.2
Perunthalamanna	-2.09	157.58	Kuttanad	0	0

Tirur	43.1 9	658.1 6	Karthikapp ally	-1.54	319. 1
Tirurangadi	0	0	Chengannu r	-5.95	114. 43
Ponnani	55.1 8	129.1	Mavelikara	-4.52	293. 93
Ottapalam	-2.9	148.3 2	Thiruvalla	0.36	- 2.38
Mannarkad	- 100	0	Mallappall y	0	0
Palakkad	- 1.03	39.2	Ranni	0	0
Chittur	- 0.29	1.47	Kozhanche ry	1.72	34.9 5
Alathur	0	0	Adoor	-58.09	1.19
Talappilly	86.8 6	460.1 6	Karunagap pally	3.75	149 6.2
Chavakkad	10.0 1	141.0 2	Kunnathur	0	0
Thrissur	3.64	70.09	Pathanapur am	-2.11	- 1.12
Kodungallur	- 13.0 2	173.4 6	Kottarakara	0	0
Mukundapu ram	14.4 2	192.2 9	Kollam	-3.54	101. 97
Kunnathuna d	- 3.38	606.9 5	Chirayinke ezhu	-23.85	156. 58
Aluva	28.7 1	49.39	Nedumang ad	2.29	104. 04
Paravur	- 16.0 9	43.73	Thiruvanan thapuram	0.28	18.9 4
Kochi	- 1.47	41.11	Neyyatinka ra	55.18	305. 67
Kanayannur	3.96	16.03	Kerala	-1.63	83.7 3

Source: Compiled by the Researcher

Tempo of Urbanization in Kerala from 1991 to 2001

The average tempo of urbanisation in Kerala was -1.63 during 1991 to 2001. For the analysis, tempo of urbanisation during 1991 to 2001 is categorised based

on the following criteria; Negative Speed – Below 0, Low – 0 – 30, Moderate -30 – 60 and High- Above 60

Thirteen taluks like Ranni, Devikulam, Nilambur, Tirurangadi, Kottarakkara, Kunnathur, Mallappally, Alathur, Kuttanad, Peerumade, Quilandy, Sulthanbathery, Mananthavady etc. have depict as rural category during this decade.

Lowest tempo has been found in Muvattupuzhataluk(-60.97) and highest found in Ernad taluk (86.87). During 1991 to 2001, twenty seven taluks namely Paravur, Kothamangalam, Kodungallur, Kozhikode, Kollam, Kunnathunad etc. shows deceleration of urbanisation. Among this, Mannarkkad and Kanjirapally taluks were declassified in 2001. Low speed of urbanisation could be found in nineteen taluks like Aluva, Meenachil, Vythiri, Mukundapuram, Chavakkad, Thrissur, Nedumangad etc. Kasaragod, Tirur, Ponnani and Neyyattinkara taluks have moderate urabanisation speed. High urban tempo could be visible in Talappilly and Ernad taluks

Tempo of Urbanization in Kerala from 2001 to 2011

Table 10 shows that the average tempo of urbanisation in Kerala has been increased from -1.63 in 199-2001 to 83.73 during 2001 to 2011. For the analysis, tempo of urbanisation during 2001- 2011 is categorised based on the following criteria; Negative Speed – Below 0, Low – 0 – 300, Moderate -300 – 600 and High- Above 600.

Fourteen taluks namely Mananthavady, Sulthanbathery, Tirurangadi, Mannarkkad, Nilambur, Alathur, Ranni, Kanjirapally, Peerumade, Devikulam, Kuttanad, Mallappally, Kunnathur, Kottarakkara etc. have depict no urban character and still remained rural. Lowest tempo has been found in Thodupuzhataluk(-8.04) and highest found in Karunagapally taluk (1496.24). During 2001 – 2011 negative tempo of urbanisation noticed in

Udumbanchola, Thodupuzha, Thiruvalla, Vythiri and Pathanapuram taluks. Among these Udumbanchola taluk is not an urban since 2011. The lowest speed of urbanisation could be observed in thirty seven taluks like Mavelikkara, Vadakara, Mukundapuram, Kodungallur, Ottapalam, Chavakkad etc. Moderate speed found in Neyyattinkara, Karthikapally, Talappilly and Quilandy taluks. Tirur, Kunnathunad and Karunagapally taluk comes under high category of tempo of urbanisation in Kerala during this decade.

IV.CONCLUSION

The urban population growth in Kerala has demonstrated a fluctuating trend over the study period. A high level of urbanization is particularly evident in the central and northern regions of the state. The western part of Kerala, characterized by lowlands, exhibits a greater concentration of urban population compared to the eastern regions, which are predominantly forested. Notably, the taluks of Kozhikode and Thiruvananthapuram have consistently recorded a significant share of the urban population across all Census years.

The decadal growth rate in Kerala increased substantially from 7.64% during the 1991–2001 period to 92.76% in the 2001–2011 period. Concurrently, the number of taluks experiencing negative growth rates decreased over these two decades. Additionally, the number of Urban Agglomerations (UAs) and outgrowths has increased, indicating an expansion of urban areas in Kerala.

Higher-order towns in Kerala, classified as Classes I and II, have shown a decline in population growth. In contrast, lower-order towns, particularly Class III towns located mainly in the fringe areas of higher-order towns, are experiencing growth. This trend suggests a shift in urban development dynamics, with peripheral areas gaining prominence over traditional urban centers.

From 1991 to 2011, tempo of urbanisation in Kerala has not witnessed sudden shift, instead gradual increase is visible. Entire eastern coastal belt of the state has medium to high speed of urbanisation, indicating preference of people to get settled in the less challenging environment and priority for already established city environments. Since urbanisation is dispersed nature in Kerala, tempo of the same does not create any particular spatial pattern in the state. Northern, central and southern Kerala had the same speed, with differences in terms of physiographic division. Highlands have less urban area, and hence have low speed, whereas lowland and midland have moderate to high tempo of urbanisation.

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