

ANALYSIS OF POPULATION IN THE COLOMBO DISTRICT BY DIFFERENT POPULATION ZONES

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Abstract

Population distribution pattern in Sri Lanka has been uneven from long history. 2012 census shows 28.8% of the total population of the country is concentrated in the Western region of Sri Lanka. Of this, the highest population and urban population is concentrated in the Colombo district, compared to the other districts in the Western region. However, the most recent population census highlighted a key point about population distribution and population growth among its urban local authorities, in that for the first time in history some of the urban local authorities in the Colombo district showed a minus growth rate of population and fringe areas show high growth rates. This paper attempts to explore these population variations. Finally, it attempts to create a different population-zone-categorization based on the population distribution pattern and growth rates. This identification of different growth zones is significant to forecast urban growth directions.

Key words; Population growth, Population zones, Urban Population

1. Introduction

Urbanisation in Sri Lanka shows a slow growth rate compared to the rapid urbanisation found elsewhere in South Asia. The country has one of the lowest population growth rates among developing countries (1.0 percent a year). According to official statistics, its urban population growth averaged 0.3 percent a year from 2005 to 2012 (Department of Census and Statistics, 2012). While the urbanisation data of Sri Lanka are not accepted by all, there is consensus that the country is urbanising faster than the statistical figures suggest, although slower than in other South Asian and South East Asian countries. The Western Region has undergone the highest rate of urbanisation in the country and its urban concentration has been accompanied by a higher economic growth and a higher productivity. The population in the Western region went up from

3.9 million in 1981 to 5.8 million in 2012, accounting for 35 percent of the national increase (Department of Census & Statistics, 2012). While the Western region covers only about 6 percent of the land area of the country and holds 28 percent of its population, it accounts for 45 percent of the GDP. Per capita income in the Western region is 3,808 US dollars p.a., which is 1.6 times the national per capita income (UN Habitat, 2012). Much of Sri Lanka's foreign trade passes through the port of Colombo and the Western region generates much of the capital, human resources, technology, and advanced services to drive economic growth and job creation in the rest of the country. The service sector of the Western region is the main economic force generating 65 percent of the region's GDP as against 58 percent for the service sector nationally (Department of Census & Statistics., 2012,). Those are the main reasons for concentration of population in the Western region.

2. Population distribution in the Western Region

Western region consists of three districts and Colombo is prominent in terms of population concentration. Compared to 2001, 2012 population figures Colombo district shows some important disparities among the local authorities. Therefore, this paper attempts to explore the population disparities in the Colombo district. Table 1 shows the total population figures of the past four decades in each of the three districts within the Western region.

Table 1 Total Population in the Western Region and Sri Lanka

District	Total Population '000					Inter-censal Growth (%)			
	1971	1981	1994	2001	2012	1971-	1981-	1981-	2001-
Sri Lanka	12,689	14,846	2,0007	18797	20,274	2.2	1.7	1.2	0.71
Colombo	1,498	1,699	1,695	2251	2,322	1.25	1.28	1.41	0.35
Gampaha	1,173	1,390	1,390	2063	2,298	1.70	2.24	2.01	1.02
Kalutara	729	829	937	1066	1,214	1.10	0.94	1.26	1.23
Western Region	3,401	3,916	4023	5381	5,835	1.41	1.41	1.37	1.08
% of Western	26.8	26.4	20.1	28.6	28.8				

Source: Department of Census and Statistics (2001;2012), Mendis (1982)

According to the above table, the Western Region contained 28% of the total population of the country in 2012. Over the past four decades, this percentage showed only slight variations; 26.8% in 1971 and 28.8% in 2012. Table2 only considers the urban population (based on the

official definition of urban) and it indicates the percentage share of urban population in the Western region and the country during the period from 1971 to 2012. According to this, in 2012 the total urban population in the country was 18.2%, and out of this, 61.27% was concentrated in the Western region.

Table 2 Urban Population Distribution in the Western Region and Sri Lanka

District	1971(%)		1981(%)		2001(%)*		2012 (%)	
	District urban	Country urban	District urban	Country Urban	District urban	Country urban	District urban	Country urban
Sri		22.6		21.5		14.6		18.2
Colombo	55	51.9	44.38	39.56	54.6 **	49.8	77.5	48.60
Gampah			33	12	14.6	12.2	39.6	9.72
Kalutara	22.1	5.2	21	6	10.6	4.6	4.8	2.96
Western	-	57.6	-	57.56	-	66.6	-	61.27

Source: Department of Census and Statistics 2001; 2012), Mendis (1982)

*2001 population figures do not include the Northern and Eastern provinces

The most important feature of these figures is that in 2012, the Colombo District accounted for 79.3% of the Western Region's urban population and 48.6% of the country's urban population. Compared to other districts in Sri Lanka, Colombo shows the highest rating for urban population concentration. Compared to the other two districts, Colombo is the most prominent, accounting for the highest percentage of population in the Western region. This can also be proved by comparing the population densities in the country (Table 3).

Table 3 Population Densities in the Western Region (per sq. km.)

	1981	Rank in SL	2001	Rank in SL	2012	Rank in SL
Colombo	2605	1	3330	1	3438	1
Gampaha	994	2	1539	2	1714	2
Kalutara	517	5	677	3	771	3

Source: Department of Census and Statistics, 2012

Table 3 indicates that the Colombo district had the highest population density of 3,438 persons per sq. km. in the region, making it the district with the highest population ranking in Sri Lanka in 2012. The figures indicate that Colombo is the most congested and urbanised district in the country as well as in the Western region. However, population growth pattern of the Colombo district shows a contrasting picture because for the first time, the Colombo city and immediate MCs show a negative population growth rate in the 2012 (Census and Statistics, 2012). Those population variations can be classified by different zones based on local government administrative boundaries (Weerakoon, 2016).

3. Research Method

2001 and 2012 census data are main data sources used for the study and census data integrated GIS maps used for the analysis. ArcGIS grouping analysis used to analysis population data in spatially.

4. Analysis and Discussion

Administratively, the Colombo District is divided into twelve local authorities, which consist of five Municipal councils, four urban councils and three local councils. When the local-administrative-units-based population growth is taken into consideration, Colombo district can be classified into four categories, namely; core city, inner crescent, transition crescent, and outer crescent. Figure 1 indicates different population zones in the Colombo district. The average annual population growth was considered for the classification of zones and Table 4 indicates the average annual growth rate of different local authorities.

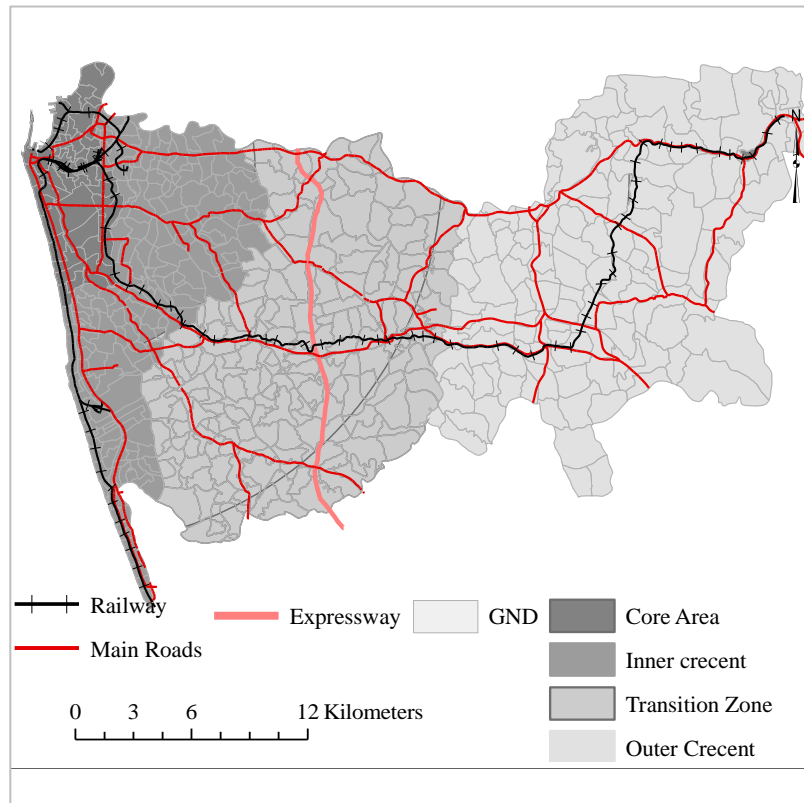


Figure 1 Population Growth Boundaries in the Colombo District

Table 4 Average Annual Population Growth Rate in 2012 - Colombo District

Local Authority	Population growth rate	Location
Colombo MC	-1.36	Core City
Sri Jayawardenepura, Kotte MC	-0.72	Inner crescent
Dehiwala MC	-0.91	
Moratuwa MC	-0.56	
Kaduwela MC	2.01	Transition zone
Kolonnawa UC	0.67	
Maharagama UC	0.85	
Kesbewa UC	1.29	
Homagama PS	2.86	
Seethawakapura UC	2.45	Outer crescent
Kotikawatta-Mulleriyawa PS	2.49	
Seetawaka PS	2.27	
Homagama PS	2.86	

Source: Department of Census & Statistics, 2012

Accordingly, four municipal councils, namely, the Colombo MC, Kotte MC, Dehiwela MC and Moratuwa MC showed significantly minus growth rates compared to the other areas. These differences are illustrated in the chart shown in Figure 2.

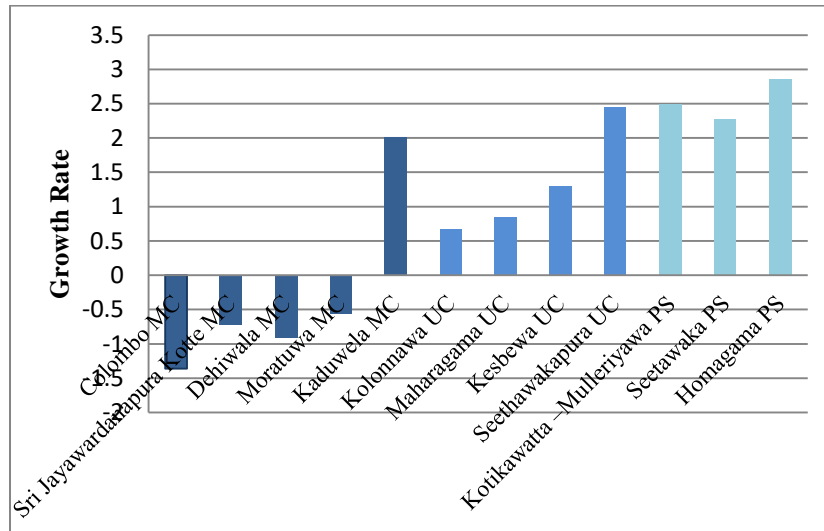


Figure 2 Average Population growth rate in 2012 – Colombo District

Urban population is another good indicator to measure urbanisation in Sri Lanka. The following table shows the urban population distribution pattern from 1981 to 2001 in the four crescents defined above. The official urban area definition in Sri Lanka is boundaries of municipal councils and urban councils. The urban population concentration pattern within different zones is shown in the Table 5.

Table 5 Population Distribution in the Colombo District

	Urban population			Average annual rate of growth %	
	1981	2001	2012	1981-2001	2001-2012
Core City	587647	642163	555152	1.8	-1.35
Inner Crescent	409394	493686	457146	4.1	-0.74
Transition zone	327232	646723	778043	4.8	1.57
Total urban population	1324273	1782542	1790341	1.8	0.04
Outer crescent **	351574	457154	533485	1.5	1.67
Total population	1675847	2239696	2323826	2.13	0.35

Source: Compiled from Department Census and Statistics

**Outer crescent consists of rural and estate population.

The average annual growth rate of the Core City during the period 1981-2001 amounted to 1.8 percent of its population in 1981. However, based on the 2001 population figure, it showed a minus 1.35 percent growth rate over the next decade. A similar pattern was shown by the population in the inner crescent as well. The transition crescent also showed an increase in population growth within the period, although the increase in the latter period was lower. According to the official urban definition, the local authorities in the outer crescent are not recognized as urban. With the outer crescent population having increased over the 3 decades, the resulting total population showed an increase as well.

5. Conclusion

The Colombo district shows high urban growth and majority of the country's population is attracted to the Colombo district. However, its population growth shows some variations. The core city shows minus population growth and high urban growth. Inner crescent is similar to the core city but the rate of decline is lower than in the core city. Transition zone shows high urban growth and moderate population growth. Outer crescent population growth is significant and it is higher than urban growth because of future urban expectations. Demarcation and identification of these zones are important for future planning and development.

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