

Demarcation and Spatial Distribution of Urban Centres in Sri Lanka

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5.1 INTRODUCTION

According to 2018 data, more than half of the world's population (55%) lived in urban areas (UNDP, 2018). This will undoubtedly increase over the next few decades, taking variations of population, concentrations, and developments into account. Significantly, the complex social and economic landscape has become a dynamic process.

Robert E. Dickinson (1948) points out that the term urban refers to the use of land for a variety of purposes other than cultivation and therefore describes the city as a place where specific cultural, commercial, industrial, and service-related functions are concentrated. Hence, the continuous growth of cities is called urbanization. Urban settlements have become one of the most dynamic phenomena in the world's settlement hierarchy. Urbanization occupies a special place in the criteria identified in the development of a country. Planned urbanization has become a turning-point in a country's socio-economic development and an essential process for present and future prosperity.

Researchers interpret urbanization from different perspectives. From a demographic point of view, the concentration of people in cities is regarded as urbanization (Ratnayake, 2009). Natural population growth and migration in urban areas have a direct impact on urban spatial growth or urbanization. Urbanization is the percentage of the population concentrated in cities relative to the total population of a country. A rapid increase in urbanization can be seen in the developed countries, while at present urbanization is rising at a higher rate in developing countries too. As a result, governments in developing countries are now increasingly focusing on urbanization when planning their future activities.

DOI: 10.1201/9781003131922-6





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The formal definition of urbanization is the number of people living in areas of a country defined as cities. Another point to note is that not all the world's countries or regions use a single criterion for urbanization. In most countries, population is used as a primary criterion for determining city status, and criteria such as ranking in the local government hierarchy are used to determine urban areas. Two or more criteria are used in most countries to define urban areas, although in some countries there is only one criterion. Due to the variation of urbanization criteria from country to country and region to region, it is difficult to express the precise value of global urbanization, and this has made it hard to pinpoint the exact situation. A minimum number of population, administrative functions, population density, urban functions, employment in non-agricultural sectors, growth of service sectors, the concentration of people, infrastructure facilities such as highways, electricity and water supply, and services such as education and health are main among the criteria used by different countries around the world, depending on their requirements. However, Frey and Zimmer (2001) noted that three groups of criteria, based on specific characteristics, are used for urban classifications: ecological criteria, economic criteria and social criteria (Table 5.1).

TABLE 5.1
Criteria Used to Demarcate Cities in the World

Country Criteria

North American region

USA A place of public concentration with population of more than 2,500 and population density

more than 1,000 per square mile

Canada Areas with more than 1,000 population and population density of 400 per km²

Mexico Areas with a population of 2,500 or more

South American region

Argentina Areas with a population of 2,000 or more

Peru Areas with 100 or more houses

Brazil Cities and suburbs demarcated administratively

Chile Highly populated areas where urban and state services located

African region

Senegal Areas with a population of 10,000 or more

Botswana A public center with a population of 5,000 and 75% of this population engaged in non-

agricultural employments

Malawi Townships, town planning areas and district centers

South Africa Administrative boundaries

Asian region

China Areas declared by the State Council and areas with a population of 1,500 or more per km²

India Special areas governed by provincial government institutes and areas with a population of

5,000 and more and 75% of the male labor force engaged in non-agricultural occupations

Japan Areas with a population of 50,000 or more
New Zealand Cities with a population of 1,000 or more
Malaysia Areas with a population of 10,000 or more

Sri Lanka Cities have been demarcated based on administrative boundaries and only Municipal Councils

and Urban Councils consider cities

European region

Norway Areas with a population of 200 or more Switzerland Areas with a population of 1,000 or more France Areas with a population of 2,000 or more

Source: Prepared by author, based on United Nations, 2019.







Table 5.1 highlights some of the features that can be found in developing countries rather than developed countries when classifying cities based on different criteria. The population is simply a single criterion used in developed countries, and the population density can be relatively lower. But the fact that not only demographic factors but also administrative boundaries and employment are used to classify these categories in the developing countries shows that there are visible fluctuations in demographics in these countries.

By 2015 there were 63 countries in the world with an urbanization rate exceeding 80%. Out of these, 12 countries recorded 100% urbanization. Five of these countries are independent states (Singapore, Nauru, Monaco, Kuwait, Vatican) while the remaining seven are security areas (islands) of other countries (Dangalla, 2019). The unique feature of all of these countries is that their land area is a minimal unit. It is also noteworthy that countries with an urbanization rate of less than 20% have expanded, mainly in Africa and Asia. Nevertheless, the point to note here is that urbanization is calculated by measuring cities on different criteria. The difficulty in applying most of these measures to African and Asian countries has resulted in recording a low urbanization rate.

Thus the level of urbanization in developing countries is low due to changes in the definition of cities from country to country and region to region. Changes in the criteria have also affected the development of a country. Data studies from the past to present show that the criteria for allocating city status have influenced the variability of urbanization in Sri Lanka as a developing country.

In the first census of Sri Lanka, conducted in 1871, the number of cities was reported to be 19. The Urban Council Ordinance of 1939 gave the relevant minister the authority to upgrade any center that indicated any urban character to a small-town council; hence most of the service centers could be upgraded to the level of cities, irrespective of population limits or land area (Gunathilaka, 2005). A further change occurred in 1987 with the administrative decision to establish provincial councils, followed by the 13th Amendment to the Constitution (Ratnayake, 2009). With this development, small-scale urban councils were no longer considered cities. Calling them provincial councils reduced the number of cities in Sri Lanka, and consequently, the urbanization percentage also fell. The percentage of urbanization stood at 21.5% in 1981, fell to 14.6% in 2001, and was 18.2% in 2012. Statistics used by Aaron O'Neill (2019) show the degree of urbanization in Sri Lanka from 2009 to 2019. In 2019, 18.59% of Sri Lanka's total population lived in urban areas and cities. The country as a whole will have to face the consequences of the lower urbanization percentage. While this does not depict a real picture of urbanization according to international standards of development, it shows a drawback in the development process. Accordingly, the present study aims to identify the success of the criteria used to classify urban centers and urban dynamics in Sri Lanka.

Overall inequality can change as the development process progresses. First, with the increase in urban share, inequality in urbanization starts to make a greater contribution towards overall inequality. The second factor is that industrialization can widen the urban–rural gap; however, the impact of industrialization can be counterbalanced by factors such as technological spillovers, changes in the terms of trade, and an increase in per-capita land. Third, the development rate can be instrumental in changing inequalities within both urban and rural areas (Cem Oyvat, 2019).

A study conducted by Cem Oyvat (2019) in some developing countries shows the impact of urbanization on the change in income distribution. Inequality can be changed through urbanization and industrialization in several ways. When urbanization continues, the urban share increases, and inequalities between and within it can be observed.

5.2 THE IMPORTANCE OF IDENTIFICATION AND DISTRIBUTION OF URBAN CENTRES

Urbanization is one of the significant factors deciding the level of development of a country or a region. Although development is a common factor for dividing regions in the world, no single criterion has been adopted to measure the level of development as well as urbanization. It varies from







country to country and region to region; urbanization in one country is entirely or partially different from in another country. In this context, the question arises whether it is possible to highlight the nature of development. Census reports from 1871 to 2012 in Sri Lanka identify statistical changes in the number of cities. The other issue is whether the cities that underwent such a transformation were considered out-of-town cities and whether those centres withdrew from urban functions. It is problematic that the real urbanization of Sri Lanka is manifested in such a change of cities by the timely amendments brought there. At present, there are a large number of centres in Sri Lanka that perform non-urban functions and do not belong to the groups classified under administrative criteria.

The objective of this study is to identify the success of the criteria used to classify urban centres and their unequal distribution in Sri Lanka.

Mainly primary and secondary sources are used for data collection. Primary data are collected from questionnaires, observation and interviews (structured and informal) with selected groups and individuals from different categories. Published and unpublished sources, institutional information and other relevant data sources constitute the secondary data. Finally, the data represent and analyze the use of the geo-spatial method.

The scope of the study is to analyze the urban centers in Sri Lanka and analyze their functional diversity. Areas for future research include preparation of an index based on urban dynamics and analyzing the changing pattern of urbanization in Sri Lanka.

5.3 DEMARCATION OF CITIES IN SRI LANKA

5.3.1 HISTORICAL DEVELOPMENT OF URBAN CENTRES

Overcoming the inter-relationships between man and nature, cities are being created as integrated hubs of settlements built to accommodate human needs. These cities expand from the centres thus created to encompass a range of extended functions and services. Road networks and population are the main factors affecting this: dense populations and buildings at the focal points of roads and the concentration of various functions in those buildings have created the artificial environment that led to the origin of cities. Centres that are regarded as mainly urban have a wide range of functions, including financial, commercial, administrative, tourism, transport, economic, countermeasures, and so on, led by the residential function. Thus, the size and the spatial expansion of service centres and their growth are determined by the increase in the size of urban functions. Agriculture is the main livelihood of Sri Lanka. According to the settlement hierarchy introduced by Walter Christalar in 1933, urban service centres of this kind provide services to several surrounding rural settlements. Accordingly, the isolation of cities, service centres, or peripheral villages results in no development taking place. The level of development in cities or rural areas is determined by the inter-relationships created there. The formation and growth of urban settlements are also important. The origin of urban settlements coincided with the growth of monarchy, and there is evidence that it originated in the kingdom of Anuradhapura. Sri Lanka was not completely inhabited at that time, and people living a traditional way of life did not need urban services. In the kingdoms where there were only a handful of small industries, urban services were often limited to the king and his entourage. Public hearings were often held at the command of the king, and the community had the opportunity to enter the city only on that day. The city was a fortress demarcated by physical boundaries in the form of open space, moat or a large wall.

Cities originating from the Anuradhapura period changed with the trajectories of the kingdoms, often with only one major (capital) city. Urban settlements changed with the periodic movement of kingdoms from different places, such as Anuradhapura, Polonnaruwa, Sigiriya, Dambadeniya, Yapahuwa, Kurunegala, Gampola, Raigama, Kotte and Kandy respectively.

Clear records of the cities of Sri Lanka date back to 1871 when the first census was conducted by the British imperialists. There were cities in Sri Lanka at the time of the census, but there is no evidence that they were officially recognized as such. During the colonial period which started







in 1555 with the invasion of the Portuguese, Sri Lanka started trading through Galle, Colombo, Trincomalee, and Jaffna, which were the main ports. The centers set up for these trading activities and their administrative purposes functioned as urban centers. There is evidence that the emergence of modern urban settlements in Sri Lanka after the kingdoms began from the south-west and southern coastal belts (Ratnayake, 2009). After the conquest of the country by the British as their colony in 1796, the urban settlements which performed urban functions were expanded to the hinterland with the commencement of the plantation industry.

At the 1871 census, there were 19 cities in Sri Lanka. An urban population of approximately 260,000 was reported, and the rate of urbanization was 10.8%. A closer look at Sri Lanka's urbanization also reveals that although the process was slow, there was steady growth. By 1881, there were 20 cities, and 20,000 more were added to the urban population. However, the rate of urbanization came down to 10.2%. This is because the rural population was growing faster than the urban population. By this time, the growth rate of the total population in the country was 1.4% and the growth of the urban population was 0.8%. Because by 1891 urban population had grown at a rate faster than the country's total population ratio, the urban percentage had increased to 10.7% although the number of cities had not increased. A subsequent examination of the census data reveals a gradual increase in the number of cities as well as the rate of urbanization (Table 5.2).

The first formal census conducted in Sri Lanka in 1871shows that 19 cities were then established in the country, and their number gradually increased until 1953. The growth of these cities was slow: it took 82 years for a further 24 centres to grow into cities. The proposal introduced by the Urban Council Ordinance in 1939 to upgrade centres that perform urban functions to town councils was implemented in 1946. After this, the number of urban centres rapidly increased, and by 1963, a further 56 centres had been added to the existing number of urban centres. By 1971, another 36 cities had been added, bringing the total number of cities to 135. This implies that urban functions and service centres were working for the development of rural peripherals, even though they had not been recognized as urban until then. It was a turning-point in the urbanization as well as the

TABLE 5.2 Number of Cities in Sri Lanka, 1871 to 2019

Year of Census	No. of Cities	Percentage of Urban Population	Percentage of Population Growth	Percentage of Urban Growth
1871	19	10.8	1.4	N/A
1881	20	10.2	0.9	0.8
1891	20	10.7	1.7	1.4
1901	28	11.6	1.4	2.6
1911	37	13.2	0.9	2.7
1921	42	14.2	1.7	1.6
1931	42	13.9	1.5	1.5
1946	42	15.4	2.8	2.2
1953	43	15.3	2.6	2.8
1963	99	19.1	2.2	4.9
1971	135	22.4	1.7	4.2
1981	134	21.5	1.7	1.2
2001	55	16.5	1.3	1.9
2011	64	18.2	0.6	N/A
2019	65	18.5	0.4	N/A

Source: Prepared by author, based on Department of Census and Statistics (2018, 2019).







national development of Sri Lanka. However, in 1987 urban status was removed from urban centres which were considered town councils through the 13th Amendment to the Constitution, transforming them into *pradeshiya sabhas*. Although administratively removed from urban status, all of these service centres performed urban functions, gradually increasing their services. The abandonment of centres that once administratively determined the Urbanization Index was another major factor in the decline in the level of urbanization in Sri Lanka. Accordingly, the total number of cities in Sri Lanka fell to 64 by 2012.

5.3.2 CATEGORIZATION OF URBAN CENTRES IN SRI LANKA

Each country determines the minimum number of people who should live in a city relative to the population of the country, regardless of the minimum population statistics, according to various countries in the world and the United Nations. Accordingly, there is no clear definition of the minimum population that a city should have in Sri Lanka, and a minimum population has been used only to determine the size of cities. Cities with a population of 5,000–10,000 people have been recognized as small-scale urban centres, a population of 10,000–50,000 as medium-scale centres, and cities with more than 50,000 population as large-scale cities (Mendis, 1982) (Table 5.3).

According to these statistics, the number of small urban centres in Sri Lanka has been reduced to eight by 2019. The population of small centres can be divided into three main categories: less than 2000, 2000–4999 and 5000–9999. Table 5.3 shows a rapid decline in small urban centres with a population of less than 2000, and a gradual increase in the number of the other two categories until 1981. However, by 2001 the total number of small urban centers had fallen to eight from a total of 59 in 1981. Especially during the census periods of 1963, 1971 and 1981 there was a sharp increase

TABLE 5.3 Expansion of Urban Population Based on the Size of Cities, 1871 to 2001

		8							
	Small Cities			Medium-S	ized Cities	Large Cities			
Year	Less than 2000	2000 -4999	5000 -9999	10000 -19999	20000 -49999	50000 -99999	More than 100000	Total No. of Cities	
1871	4	4	2	2	2	1	N/A	19	
1881	3	8	4	1	3	N/A	1	20	
1891	N/A	9	4	3	3	N/A	1	20	
1901	3	10	6	4	4	N/A	1	28	
1911	6	6	13	6	4	N/A	1	36	
1921	11	7	11	6	6	N/A	1	42	
1931	9	5	12	9	6	N/A	1	42	
1946	3	9	7	13	5	4	1	42	
1953	3	8	4	15	6	6	1	43	
1963	9	21	23	21	18	5	2	99	
1971	6	32	30	34	25	5	3	135	
1981	3	28	28	35	31	3	6	134	
2001	8				30	17		55	
2011	8				39	18		64	
2019	8				39	18		64	

Source: Prepared by author, based on Department of Census and Statistics (2018, 2019).







in town councils. Another special feature is that the 1946 and 1953 census years showed a decline in the overall number of small urban centres, while medium-sized urban centres showed a significant increase. As regards large urban centres with a population of 50,000 to 99,999, from 1881 to 1946 not a single center with that population was reported, but 4 and 6 such cities were reported in 1946 and 1953 respectively.

5.3.3 DISTRIBUTION PATTERN OF THE URBAN CENTERS IN SRI LANKA

There are some disparities in the expansion of urban settlements. Many urban centres, in particular, are found in the coastal plains, with large urban centre in the region. The fact that more urban centres are concentrated in the wet zone has also exacerbated the disparity (Table 5.4).

As per the classification in Table 5.4, based on the national criteria, 30% of the municipal councils and 27.5% of the urban councils are located in the dry zone, and that figure is 28.7% of the total number of officially recognized urban centres in Sri Lanka. Among the cities declared by the Urban Development Authority, which do not belong to these categories, 178 *pradeshiya sabhas* are also considered urban centres (Figure 5.1).

Very few of the total number of urban centres recognized as urban according to national criteria are located in the dry zone, but service centres in this zone provide urban services without urban status.

From the very beginning, administrative boundaries have been used to demarcate cities in Sri Lanka. All Commonwealth countries adopt this criterion, and some have adopted other additional criteria, making the task of identifying cities very successful; for example, in India, in addition to the administrative boundaries, minimum population (average 5000), population density (400 per sq. mile), and non-agricultural employment opportunities (at least 75% of the city's male population must be employed in the non-agricultural sector). However, the failure to change the criteria in Sri Lanka has led to an inability to accurately calculate the level of urbanization. The other factor was the demotion of town councils – which used to demarcate urban status until 1987 – which reduced urbanization from 21.5% in the 1981 census to 18.1% in 2011. The fact that the real development of the country is not highlighted, that urbanization appears not to be accelerating along with the economic growth of Sri Lanka and that only economic growth is taking place, is problematic and strongly affects research. According to nationally accepted criteria, urbanization was 18.9% in 2019. The total number of urban centers was 65. In addition to that, the Urban Development Authority declared 178 centres by 2019, in addition to the 65 recognized urban centres mentioned above.

Although there is a total number of 271 pradeshiya sabhas in Sri Lanka, there are many urban service centres throughout the country that are not officially recognized as peripheral centres, and these have not yet been declared urban centres by the Urban Development Authority. Such service centres bring together several government agencies in the settlement to provide urban services to surrounding areas. According to the survey, there are 303 more such rural centres spread across the country that provide various services to the peripherals. To identify such centres, factors such as

TABLE 5.4
Expansion of Towns in Sri Lanka According to Climate Zones

City Type	Wet Zone	Intermediate Zone	Dry Zone	Total
Municipal Councils	12	04	7	23
Urban Councils	26	05	10	41
Total	38	09	17	65

Source: Prepared by author, based on Urban Development Authority (2019).







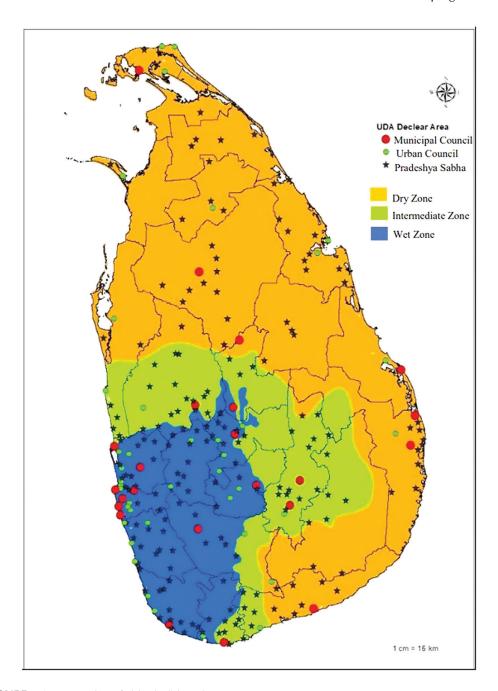


FIGURE 5.1 Expansion of cities in Sri Lanka.

(Source: Field Data, 2020.)

growth centered on a junction, density of buildings, nature of their expansion with urban fringes, and the presence of one or more government institutions such as sub-post offices, schools, banks, police stations, Divisional Secretariat Division Officials and judicial services were considered. There are around 545 service centres throughout the country, including such service centres mentioned above (Figures 5.2 and 5.3) (Table 5.5).







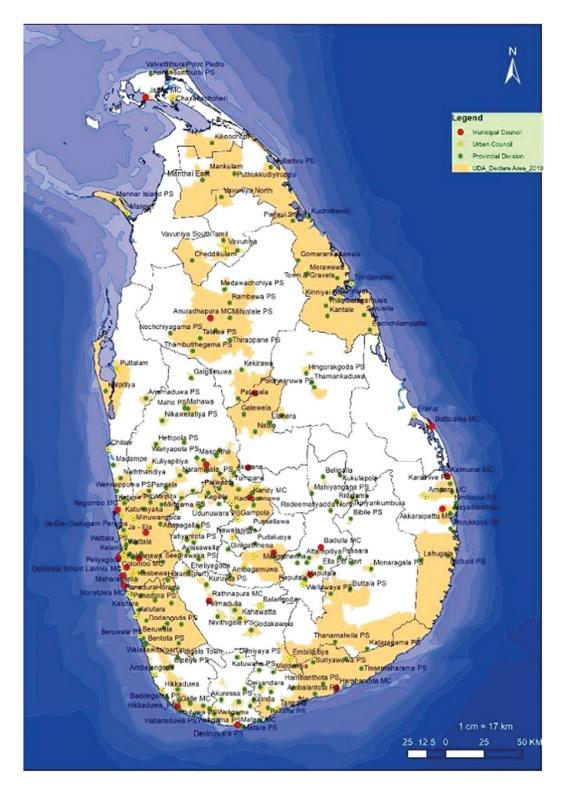


FIGURE 5.2 Expansion of cities in Sri Lanka named by Urban Development Authority. (Source: Field Data, 2020.)







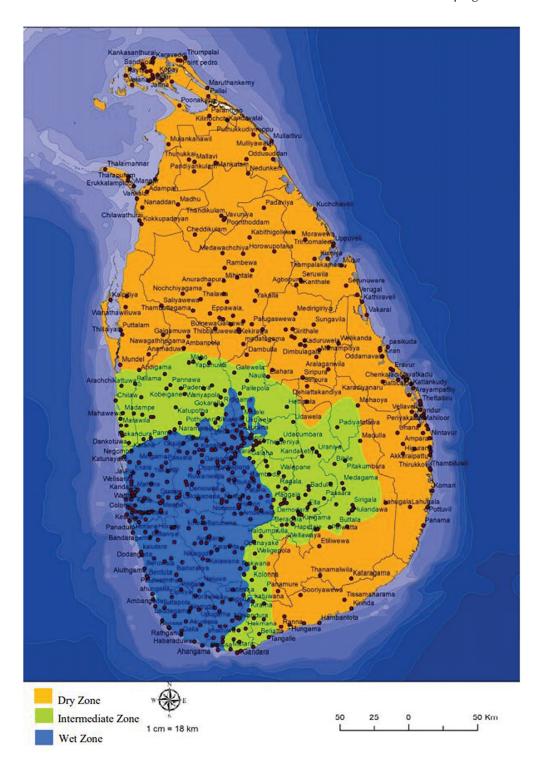


FIGURE 5.3 Expansion of urban service centres in Sri Lanka which are not declared by the Urban Development Authority.

(Source: Field Data, 2020.)







TABLE 5.5
Expansion of Service Centres in Sri Lanka That Are Not Declared Administratively by the Urban Development Authority

Type of City	Total
Urban Centres (officially announced)	65
Towns (declared by UDA)	178
Service Centres (identifying above-mentioned services)	303
Total	545

Source: Based on Urban Development Authority (2019) and field data.

TABLE 5.6 Expansion of Urban Centers in Terms of Climate Zone, 2020

Climate Zone	Land Area (Square km)	Percentage (Out of Entire Land Area)	Total no of Cities (According to National Criteria)	Square km Covered by an Officially Declared City	Total of Urban Centers (Officially Recognized, Mentioned by UDA)	Square km Covered by a City According to All Service Centresin Sri Lanka
Wet Zone	12,696	19	38	334	189	67
Intermediate Zone	14,203	22	09	1578	142	100
Dry Zone	38,575	59	17	2030	214	180
National Level	65,474	100	64	1023	545	120

Source: Based on Urban Development Authority data and field data, 2020.

Although the overall expansion of urban centers is as above, Table 5.6 shows it in terms of land area according to climate zones.

The density of the dry zone service centres can also be calculated according to the terrain shown in Table 5.6. Accordingly, as per national criteria, there is at least one urban center to serve 334 km² in the wet zone, 1578 km² in the intermediate zone, and 2030 km² in the dry zone. (When the entire country is considered, there is one urban center to serve 1023 km².) Whatever the urban density expansion, according to national data, the figure can be identified as one urban center per 120 km² when calculating urban expansion density in conjunction with all urban service centresin the dry zone. The wet zone is in an excellent position, and the dry zone is more than twice the national average. This means that people in the dry zone have to travel long distances for urban and higher-quality services. Accordingly, the mapping of the distances in zones to meet their needs is the special feature that covers the service center in terms of national criteria in the dry and intermediate zones relative to the center, but also in terms of locally connected service centers (Figure 5.4).







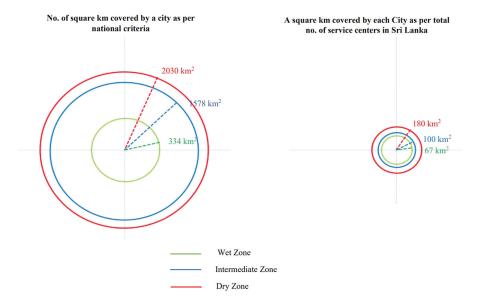


FIGURE 5.4 Density of the city and service in Sri Lanka.

(Source: Field Data, 2020.)

5.4 CONCLUSION

Accordingly, an apparent discrepancy in the density of urban centres can be identified in the current classification of towns based on national criteria. There is a maximum limit of 334 km² for those living in the wet zone to enter a city; it shows a large density gap of 1000 km²–2000 km² in the intermediate and wet zones. When looking at urbanization in Sri Lanka based on climate zones, it is clear that the gap is due to low population density, lack of infrastructures such as roads and transport, and poverty. Those factors contribute directly to regional development disparities in Sri Lanka.

However, in Sri Lanka, although it is not administratively classified, it takes 2030 km² of land on national criteria to enter a city in the dry zone when measuring urban densities in conjunction with the service centres mentioned. Second, people can meet their urban function service requirements within a range of 180 km². This difference in the expansion of urban centres caused by the administrative criteria used to classify cities nationally has led to a numerical decline in Sri Lanka's Urbanization Index. The lack of real urbanization in a country causes its development to decline. Unfortunately, real national development conditions do not manifest themselves promptly in a so-called developing country.

Compared to absolute urbanization, Sri Lanka has not yet fully urbanized. According to the present demarcation of the urban, more than 40% of the total population lives in urbanized areas. However, according to national criteria used in 2018, the prevailing urbanization level is 18.9%. According to the pattern identified by these criteria, the highly urbanized area is the wet zone, the intermediate zone is moderately urbanized, and the least urbanized area is the dry zone. However, the trend is the highly urbanized areas extending beyond the Municipal Councils in the country. The impact of urbanization, which began in Colombo, is spreading across the country.

Accordingly, it is crucial to recognize that there are new urban service centres beyond the city of Colombo and that they are expanding to the eastern and northern parts of the country. As per this framework, no area can be subdivided into absolute urban or rural areas. This is because the creation of rural services for people living in rural areas is a trend in urbanization. In addition, the provision of urban services through rural service centres also implies that such centres play an essential role in the urbanization of Sri Lanka, albeit quietly. The level of urbanization in an area is reflected in







the social and economic development of the people living there. It can be identified by evaluating the lifestyle of the people.

Most of the urban services in Sri Lanka are located around economic peripherals based on agriculture. However, the study confirmed that although the urbanization rate currently based on 64 recognized urban centres in Sri Lanka was as low as 18.9% in 2019, around 547 service centres currently contribute to accelerating urban services by providing complete urban functions. Accordingly, it can be concluded that at present, a development that exceeds more than 40% of the actual urbanization in Sri Lanka can be identified. This shows that the problematic situation that exists from the first step of identifying urbanization in Sri Lanka does not reflect the reality of urbanization in the country.

Accordingly, there is a need to update the benchmarks of urbanization in Sri Lanka, and a practical measuring system is required. If the urban economic conditions based on the functions at service centres can be calculated to illustrate this realistically, then a fixed value of urbanization in Sri Lanka, as well as in service centres that have developed as urban centres can be clearly defined, which will be a great impetus to national development.

5.4.1 RECOMMENDATIONS

The level of urbanization is one of the indicators for the development of a country. Sri Lanka uses a single criterion to officially demarcate urban centres. This is not suitable for a country like Sri Lanka, because the pattern of the population and resource distribution is uneven. Therefore, it is better to use many criteria to demarcate the country, which will help to distribute urban services all over the country and gather more people in one place.

It is suggested that sociological and physiological parameters are used as well as the present criteria to identify urban centers in the less populated areas as well as purely agricultural areas.

It is better to maintain an equal traveling distance for accessing urban services across the whole country, since rural poverty affects people's ability to arrange personal transport to supply input and produce market output.

The size of the area and the quantity of urban services are not important in promoting centres as urban. It depends on the economy and population density of the area. Therefore, relevant government institutions have to demarcate the new centres and maintain the urbanization level.

Settlements in Sri Lanka are far beyond international definitions of rural, because Sri Lankan rural settlements are in the peri-urban state, according to the criteria used. The Sri Lankan authorities need to revisit the definition and demarcate urban centres accordingly.

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