

## THE RURAL-URBAN FRINGE OF COLOMBO— A ZONE IN TRANSITION

*by*

Y. A. D. S. WANASINGHE

The rural-urban fringe of Colombo is one of the most dynamic areas in Sri Lanka. It is a transitional zone, where social and demographic characteristics, land use and functions of its settlements are in process of changing from rural to urban. This paper attempts to analyse the demographic, functional and land use changes in the crescent-shaped fringe of Colombo and highlight the processes operating there, from a geographical point of view.

### I

#### THE CONCEPT OF THE RURAL-URBAN FRINGE

In the past, there existed a clear physical separation between the city and the countryside. After the Industrial Revolution in Europe, cities began to expand and spread beyond their legal limits. Many people who were employed in cities preferred to live outside the city limits in the rural hinterland. They commuted to the city not only for employment but also for goods and services. Gradually a transition zone began to evolve around cities where the residents were predominantly urban-oriented. Although they were not *in* the city, they were considered to be *of* the city. Economically and socially this transition zone had mixed rural and urban characteristics. Hence the zone came to be termed the “rural-urban fringe” of the city.

The rural-urban fringe has been frequently confused with suburbs. After analysing the different definitions used by social scientists, Kurtz and Eicher clarified the concept of the rural-urban fringe and presented a summary definition of the fringe area. It is located,

“beyond the limits of the legal city, in the ‘agricultural hinterland’, exhibiting characteristics of mixed land use, with no consistent pattern of farm and non-farm dwellings. The residents are involved in rural and urban occupations . . . . This area shows potentialities for population growth and increasing density ratios” (1958, p. 36).

Pryor defined the rural-urban fringe as a “Zone of transition . . . . lying between (a) continuously built-up urban and suburban areas of the central city and (b) the rural hinterland . . . .” (1969, p. 33).

The fringe is characterized by a mixture of urban and rural land uses. Due to the constantly changing nature of its land use pattern, the rapid rise in land values and the lax zoning regulations, the fringe is considered to be an

“area of invasion . . . an area undergoing the growing pains of un-planned transition from land use consistency to a mixture of rural and urban” (Kurtz and Eicher, 1958, p. 36).

Changes in the land use pattern occur, when there is competition from different uses for the limited amount of land from residential, commercial, industrial and recreational activities. The greatest demand is for residential purposes. Hence, there is an interspersed of farm and non-farm residences in the fringe. In Western Europe and the U.S.A., the increasing demand for dwellings is a result of in-migration to the fringe by urbanites from the city.

“They are likely to be either fairly affluent professional people or manual workers coming to a particular job. The junior non-manual, black-coated or white-collar worker tends to be barred from the countryside unless he is able to buy a cheap cottage or lives in a council house: the new privately built house is generally beyond his means” (Pahl, 1965, p. 47).

In the United Kingdom, the spread of such upper middle-class housing units into the fringe around London along railway lines and motorways has created a

‘cocktail belt’, extending up to 80 kilometers from Central London, which is an extreme manifestation of the spatial segregation of social classes which characterizes England more than any other European country” (Whitehand, 1967, p. 7).

This “flight from the city” to the surrounding countryside is a common feature in other parts of Western Europe and the U.S.A. Pahl describes this phenomenon in the American context as a “folk movement away from the dirt, violence and racial and religious tensions” in the city.—(1965, p. 7). Studies by Martin (1953), Kurtz and Smith (1961) in the U.S.A., indicate that these migrants look inward to the city and feel themselves as urbanites. Therefore, the outer part of the fringe is seen as a “frontier of social change”. Commenting on the effect of the influx of urban-oriented outsiders to the old established villages in the fringe, Dobriner remarks that the “assaulted village with its rural institutions and way of life, goes through the agony of transition from rural to urban within the span of comparatively few years” (1963 p. 13).

The fringe attracts not only dwellings but offices, factories, commercial and educational establishments as well. The land use pattern changes into one typical of suburban settlements.

Due to the urban-oriented nature and the high degree of mobility of their residents, although there is a rapid increase in population, these settlements do not always perform central functions commensurate with the expanding population in the tributary areas. Yet, they undergo a certain kind of functional transformation. Instead of predominantly primary economic activities such as agriculture or fishing, they acquire dormitory functions and become "out-commuter" settlements. Since they have mixed rural and urban characteristics, the changing villages are also known as "rurban" settlements. Some villages become suburbs with predominantly residential, industrial or mixed features.

Thus, the fringe becomes a zone of transition, with a peculiar land use and socio-economic composition. To some social scientists such as Golledge (1960) the fringe is a "physical entity with a particular land-use mix brought about by the spread of the city, its functions and its populations into rural areas". Others like Pahl (1965) considers it to be a "social entity brought about by the influx of socially-segregated, economically-filtered, urban-oriented, mobile middle-class families, inter-mixed but not intermingled with a more staid, socially diverse, static, indigenous rural population" (Thomas 1974, p. 25).

## II

### **Delimitation of the rural-urban fringe around Colombo**

Occupation structure, social characteristics and land use are the most common criteria used in the delimitation of the rural-urban fringe. The fringe exhibits distinct social and employment characteristics but in Western countries, delimitations based on these two criteria have not been successful. Due to modern methods of transport and communications, the distinction between urban and rural social attitudes are less clear. In addition, both urban and rural occupations are undertaken by members of the same family. Hence, Johnson believed that land use rather than social or employment factors would provide a "simple and a more reliable guide to the character of the fringe zone and to the changes taking place therein" (1964, p. 142). In a developing country such as Sri Lanka, field evidence suggests that occupation structure or land use would provide a satisfactory guide in delineating the fringe zone. Since a close relationship could be observed between (a) the proportion of urban land uses to the total land area in the settlements of the fringe and (b) the number engaged in non-primary occupations, the writer (1973).



1981) used the land use criterion in delimiting the rural-urban fringe around Colombo. The existing land utilisation maps on the scale of 1-inch to a milè were revised by the writer using recent aerial photographs and revised ordnance survey maps supplemented by extensive field investigations. The different land uses in the Western Province were grouped into two categories, viz. urban and rural. The urban land uses include the following : residential, industrial, educational, commercial and residual urban uses such as land used for hospitals and other buildings as well as open spaces such as parks, golf courses and cemeteries. Land under agriculture, extractive industries, marshes, forest, chenas and waste land are classed as rural or non-urban uses. These two major land use types were demarcated on the revised land use maps and 1-inch square grids superimposed on them, which enabled the writer to measure the acreage under urban land uses and express this as a percentage of the total land area in each grid. Isolines were drawn in order to present the distribution of urban land uses in the province in a two dimensional form. Those isolines were used to delineate the outer and inner boundaries of the fringe.

The inner boundary of the fringe in 1981 coincided with the outer limits of the continuously built-up area of Colombo and suburbs of Kolonnawa, Kotte, Dehiwela-Mt. Lavinia and Moratuwa (Fig. 1). The remaining suburbs are included in the rural-urban fringe.

The outer limits of the fringe extend up to a point where "rural land uses predominate" (Pryor, 1968). Taking into consideration the extensive nature of the rural land uses as opposed to urban land uses and the fact that a significant break occurred at 33 per cent in the scatter diagram depicting the percentages of urban land use in the grids, the 33 per cent isoline was selected as the outer boundary of the rural-urban fringe of Colombo. It corresponds closely with the boundary that demarcates the settlements having more than 50 per cent of their gainfully-employed population engaged in non-primary occupations (Fig. 1).

The rural-urban fringe thus delineated covers more than 85 per cent of the Western Province.

It contains a variety of settlement types :

- i. (a) Suburbs of the inner crescent such as Wattala-Mabole -Peliyagoda.
- (b) Suburbs of the outer crescent, Panadura, Kalutara, Maharagama, Piliyandala, Dalugama, Kelaniya, Ragama, Kotikawatte, Mulleriyawa, Battaramulla, Talangama, Ja-ela, Kandana, Welisara, Hendala (Fig. 2).

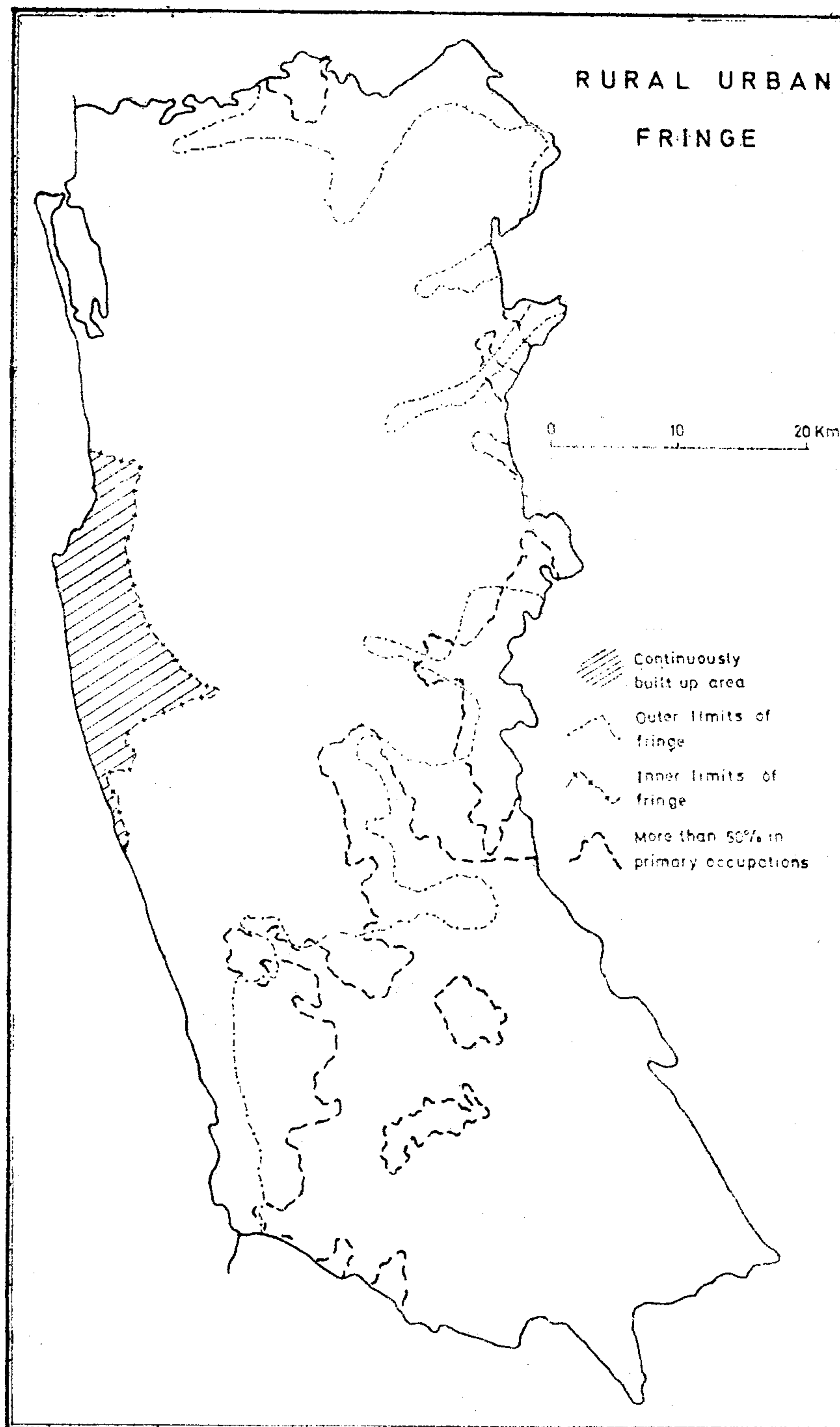


Fig 1

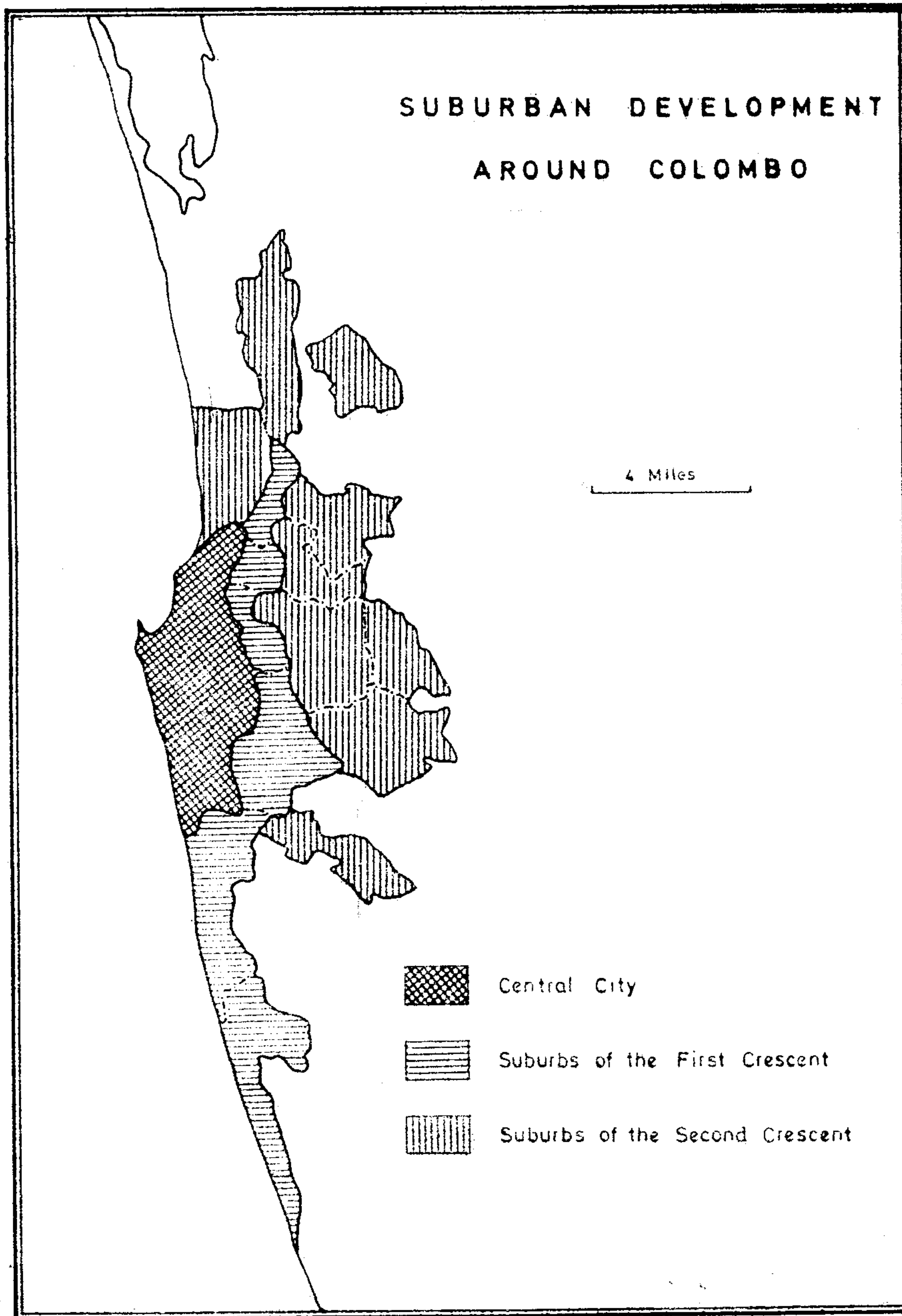


Fig:2

- ii. Sattellite towns of Colombo such as Homagama, Gampaha.
- iii. Outer urban centres outside the orbit of Colombo viz; Negombo, Kochchikade, Beruwela, Alutgama, Horana.

v. Rurban settlements—

These are settlements that have changed from agricultural and fishing villages into settlements with mixed rural and urban characteristics.

**III**

**Salient features of the fringe around Colombo**

The rural-urban fringe of Colombo evolved in the early decades of the 20th century. The population figures and number of dwellings in selected villages in 1891 (which today forms a part of the suburb—Dehiwela-Mt. Lavinia) indicate that pre-twentieth century small town of Colombo was surrounded by agricultural settlements (Table 1). They have now been absorbed by the suburban town of Dehiwela-Mt. Lavinia.

**TABLE 1**

<i>Name of Settlement</i>	<i>Population</i>	<i>Number of Dwellings</i>
Ratmalana (North-South) .. .. .	3,461	594
Galkissa (North and South) .. .. .	3,408	666
Dehiwela (North and South) .. .. .	1,477	252
Nikape—Nedimale .. .. .	934	431

*Source* : Census of Ceylon 1891.

During the early decades of the 20th century, Colombo gradually became the focus of financial, insurance and commercial establishments; the transport and communication hub as well as the cultural, educational and industrial centre of the island. There was an influx of migrants to the city from other parts of the country so that between 1921–1931, 91.8 per cent of the population increase of the city was attributed to in-migration. After 1931, there was a gradual reduction in the rate of migration, mainly due to the diversion of migrants to the suburbs.

Around Colombo a crescent of suburbs had emerged by 1911, aided by the development of transport and encouraged by the peculiar physical features in and around the city, viz; the presence of badly-drained, low-lying land liable to floods which forced the people to settle on islands of dry land further away from the city. In 1921, Geddes rightly predicted that suburbanization would take place as far as Kelaniya, Hunupitiya, Wattala and Wanawahala, and remarked that “suburban life needs only better communications for its further encouragement.” (Geddes, 1921, p. 21).

This gradual transformation of the surrounding settlements had resulted in the creation of a very narrow fringe round Colombo by 1921. It included



the first crescent of suburbs and a few neighbouring villages. Between 1921 and 1963 a further transformation had taken place. A second crescent of suburbs had emerged round the first crescent (Fig. 2) and the surrounding villages were being urbanized. By 1981 the rural-urban fringe had expanded to cover more than 85 % of the Western Province. There has not been a massive advance *en masse*. It grew by "mycelial extensions," repelled by marshes, paddy fields and hill tracts and attracted by the flat or gently-sloping, well-drained land. Its tentacles have extended along major transport routes that radiate from Colombo. While the fringe was expanding outwards, the inner boundary of the fringe has been pushed forward by the continuously-growing built-up area of the central city.

### Population Growth

The settlements in the fringe are characterized by rapid growth rates in population and buildings. Between 1911-1963 the population of Colombo increased by 142 per cent while that of its immediate suburbs such as Dehiwela-Mt. Lavinia and Wattala-Mabole-Peliyagoda (first crescent) increased by 501 and 532 per cent respectively. The growth rates experienced by Colombo and fringe settlements during the intercensal period 1963-1971 and the expected growth rates in 2001 is an indication of the actual and potential higher rates of population growth experienced by fringe settlements (Table 2).

**TABLE 2**  
**Population growth rates in Fringe Settlements**

<i>Locality</i>		<i>Percentage</i>		<i>Increase</i>	
		1963-1973	1971-2001	1963-1973	1971-2001
Continuously	Colombo	09.9	07		
	Dehiwala-Mt. Lavinia	39.0	78		
Built-up Area	Moratuwa	23.7	67		
	Kotte	27.8	60		
	Kolonnawa	36.3	31		
<b>Town Councils</b>					
Rural	Battaramulla	34.9	154		
Urban	Hendala	37.8	62		
Fringe	Maharagama	46.0	107		
<b>Village Councils</b>					
	Aturugiriya	—	150		
	Mampe-Kesbewa	—	133		
	Mahara	—	73		

Source : Census of Sri Lanka 1971 and Colombo Master Plan Project.

As mentioned in Part I, the fringe settlements in Western countries are occupied mainly by--

- (a) local-born predominantly working-class people,



(b) migrant, predominantly middle-class urbanites.

This centrifugal movement away from the city by the middle-classes is considered to be a "tacit revolt against the industrial society." They alone could afford the high cost of housing in the fringe and the extra expense involved in travelling daily to the city.

This situation is not replicated to the same extent in the fringe around Colombo. The more accessible settlements are inhabited mainly by—

(a) local-born middle and working-class people—

(i) farm workers (non-commuters),

(ii) secondary and tertiary workers (commuters),

(b) migrant middle and working-class commuters.

The proportion of "outsiders" to local born in the fringe varied from settlement to settlement depending on the degree of accessibility and distance to Colombo and suburbs. At Wevala—a rural settlement located approximately 11 miles to the South-East of Colombo, the proportion of 'outsiders' to local born was 1 : 1 whereas at Narangodapaluwa (12 miles to the North-East of Colombo) and at Bollegala-Talwatta (8 miles to the East) the proportions were 1 : 2 and 3 : 5 respectively. Instead of an urban to rural migration commonly seen in Western countries there is a predominantly rural to rural migration and to a lesser extent a suburban to rural migration. The majority of in-migrants to Wevala and Narangodapaluwa had arrived from the neighbouring villages. The remainder had lived in rented dwellings in towns like Moratuwa, Kotte, Panadura, Mt. Lavinia, Kelaniya and Dalugama. As a result of inflated land values and exorbitant rents, the average lower middle and working class commuter cannot afford to live either in the city or in the suburbs of the first crescent. They have no alternative but to construct or rent houses in the more accessible rural settlements or satellite towns. Most of them are "reluctant commuters" who prefer to live near their places of work in the city, make use of urban facilities and educate their children in the best urban schools.

Since the majority of in-migrants have a rural background, the problem of social integration is not as acute as in the Western countries, where the in-migrant urbanites "live and work in distinct and separate social and economic worlds"

### **Functional Changes**

Settlements in the fringe have undergone a functional change. At the beginning of the 20th century with the exception of a few villages of specialized

craftsmen, the remaining rural settlements in the Western Province were agricultural or fishing villages. Since then, there has been an absolute and a relative increase in the number engaged in non-primary occupations. The extent of rural dilution can be illustrated by the recent trends observed in Colombo and Gampaha Districts. In the former district, primary occupations declined from 52.7 per cent in 1901 to 26.5 per cent in 1963. The following table indicates the situation prevalent in the Gampaha District at the Census of 1971 (recent census data on occupations was not available at the time of writing) (Table 3).

**TABLE 3**  
**Percentage of gainfully-employed in Primary Occupations in the rural areas of Gampaha District in 1971**

<i>A. G. A. Division</i>				<i>Percentage in Primary Occupations</i>
Mahara ..	..	..	..	11.23
Gampaha ..	..	..	..	20.80
Attanagalla ..	..	..	..	23.78
Divulapitiya ..	..	..	..	26.54
Weke ..	..	..	..	35.58

*Source* : Census of Sri Lanka, 1971.

Field investigations proved that in 1981, urban settlements of Wevala and Bollegala-Talwatte had 89% and 96.5% of their gainfully employed population engaged in secondary and tertiary activities. Not only is there a decline in primary activities in many such settlements but there is also a tendency for them to become "out-commuter" settlements performing dormitory functions. This change can be attributed to several factors viz;

- (i) The conversion of agricultural land into urban uses which reduced the demand for agricultural labour.
- (ii) The disinclination of the majority of inhabitants to work in primary activities.
- (iii) The absence of employment opportunities within the fringe settlements and the marked concentration of functions in the central city.
- (iv) The relatively low cost of buildable land and the availability of a comparatively cheap public transport system.

These factors not only encourage the local born inhabitant to remain in the fringe settlement and seek employment in the central city but also induce the outsider to migrate to the more accessible fringe settlements.

Although a great deal of decentralization has taken place in economic activities, there is still an excessive concentration of job opportunities in Colombo (Table 4).

**TABLE 4**  
**The surplus of employment by residence**

<i>Location and name of settlement</i>		<i>Employed by Census 1971 ('000 s)</i>	<i>Job opportunities ('000 s)</i>	<i>Surplus Employed by residence</i>
Central city and Suburb ..	Colombo ..	178.6	319.2	-140.6
	Dehiwela-Mt. Lavinia ..	44.9	41.6	+3.3
Fringe ..	Maharagama ..	11.7	10.0	+1.7
	Hendala ..	6.8	4.3	+2.5
	Dalugama ..	9.8	5.1	+4.7
	Battaramulla ..	10.8	6.6	+4.2
	Kotte-Galkissa ..	13.8	7.7	+6.1
	Village Council Area			

Source : Colombo Master Plan Project.

Hence more than 400,000 commute daily to Colombo either for employment or to avail themselves of the services provided by the city. The majority of bus travellers originated in the fringe since the average distance travelled was 4.5 miles. Traffic volumes decreased with increasing distance from the city. For example, along the High Level Road, the volume of traffic dropped from 12,000 per day near city limits to 4,500 to the East of Pannipitiya. A survey conducted by Wilbur Smith and Associates in 1961 indicated that only 84,000 passengers entered the city by bus. This number had increased to 290,000 during the last 2 decades (Table 5).

**TABLE 5**  
**Estimates of the number of people entering Fort and Pettah between 6.00 a.m. and 6.00 p.m. 1977-1978**

<i>Mode of Transport</i>	<i>Persons</i>	
	<i>Number</i>	<i>Percentage</i>
Buses .. ..	290,000	72.4
Other Vehicles .. ..	60,500	15.1
Trains .. ..	50,000	12.5
Total ..	400,500	100.00

Source : Colombo Master Plan.

The concessions given to Government servants and students have encouraged many commuters to live in the fringe and commute by train. A 3 months season ticket from Walpola or Batuwatta to Colombo (two stations close to Narangodapaluwa) costs less than the amount spent per month by an



ordinary traveller. Usually when there is no direct train link to Colombo, commuters would travel by bus to the nearest railway station to board a train. The average distance travelled by train was 8 miles. Along the Colombo-Kandy railway line although the largest number of passengers originated from Ragama, more than 15,000 commuters travelled from fringe settlements beyond Gampaha (17 miles from Colombo).

This daily dispersal of fringe residents to places of work outside their settlement, had resulted in the evolution of new travel patterns. At Wevala, only 20 per cent of the gainfully employed, worked in the village. More than 50 per cent commuted to Colombo and a significant proportion worked in the neighbouring towns (Table 6).

**TABLE 6**  
**Occupation Structure and Commuting Patterns of residents at Wevala, 1981**

Occupation	Commuters to Colombo		Commuters to other Settlements		Non-Commuters	
	Migrants	Local-born	Migrants	Local-born	Migrants	Local-born
Primary	0.0	0.0	0.0	0.0	2.2	8.2
Secondary	11.1	6.1	3.1	3.2	2.5	4.3
Tertiary	18.8	18.6	10.7	7.6	1.2	2.4

Source : Field data.

### Land use Changes

Land use in the fringe is in the process of being transformed from a predominantly agricultural-rural to a mixed urban-rural pattern. Today settlements in the fringe exhibit a mixture of functionally and psysiognomically widely differing land uses.

A notable feature is the decline of the area devoted to rural uses. During the first two decades of the 20th century, undeveloped land in the Western Province was opened up for coconut and rubber cultivation. Hence coconut acreage increased from 269,000 in 1901 to 282,800 in 1911. Since then, with the increasing demand for urban uses created by the push factors operating in Colombo and the pull exerted by the fringe, there has been a rapid and generally haphazard conversion of land under agriculture. One of the principal push factors is the spiralling cost of land in Colombo. High rents of buildings, traffic congestion, lack of space for building construction and parking have all contributed to the decentralization of residences, offices, factories and commercial establishments. During the post-war years (1946-1962) there has been a reduction of acreage under agriculture in the Colombo District by 29,000 acres. The rate of conversion was highest in the Colombo Divisional Revenue Officer's Division where the percentage of agricultural land declined from 41.6 in 1921 to 29.8 in 1962.



A greater proportion of land in the fringe settlements is devoted to residential uses, since they perform predominantly residential functions. Land use estimates for Colombo Urban Area predicts a further increase in the land devoted to residential activities (Table 7).

**TABLE 7**  
**Land use in Colombo Urban Area 1971 and 2001**

		<i>U R B A N</i>		<i>R U R A L</i>	
		<i>Residential</i>			
		1971	2001	1971	2001
Continuously built-up Urbanized Area	Central Sector ..	.. 64	85	17	11
	Southern Sector	.. 70	87	17	12
Rural	.. Northern Sector	.. 58	82	08	09
Urban Fringe	.. Eastern Sector ..	.. 58	90	06	03

*Source* : Colombo Master Plan Project Vol. 2, 1971.

The planned decentralization of administrative and industrial activities to the fringe will create a further demand for dwellings. The establishment of the new capital at Sri Jayawardenepura, Kotte, has attracted migrants to the Kotte-Battaramulla area. Another planned new town—Katana, located within the Negombo Metropolitan Area will utilize 2,680 acres of agricultural land for residential purposes. The Investment Promotion Zones at Katunayake and Biyagama are expected to convert more agricultural land for residences as well as for industries.

The rural-urban fringe has also provided a milieu for manufacturing growth in recent years. It has already attracted space-demanding as well as market-oriented industries. The major industrial concentrations that have encroached upon rural land uses are confined to several elongated belts extending from Colombo.

- (a) Northwards up to Negombo. This belt includes the Industrial Promotion Zone at Katunayake, Industrial Estate at Ekala as well as a variety of small-scale industries around the industrial estate, in Wattala, Kandana and Ja-ela.
- (b) North-eastwards up to Dalugama which includes several large and small-scale industries at Kelaniya and Sapugaskanda.
- (c) South-eastwards up to Homagama and Oruwela. The majority of industries are small-scale units.
- (d) South and South-eastwards down to Kalutara. This belt includes both private and public sector large and small-scale industries at the industrial complex at Ratmalana, and at Moratuwa and Piliyandala.

Other large-scale public sector industries such as hardware, textile and plywood factories have been located in the less urbanized areas of the fringe.

Major commercial concentrations have developed at road junctions such as Kadawata, Yakkala and Nittambuwa along the Colombo-Kandy road and around major railway stations. Ribbon-type and scattered commercial development such as permanent and temporary roadside boutiques and shops that sell food and drink, handicrafts and seasonal fruits occur along the main highways, Universities, airports, special hospitals are some of the institutions that have recently been located in the fringe.

This constant encroachment of urban uses on the rural landscape, has changed the traditional land use pattern of villages. At the beginning of the 20th century, Narangodapaluwa, a rural settlement near Colombo exhibited a three-fold pattern of land use commonly seen in Wet Zone villages viz ;

- (i) Fields—(a) paddy fields  
(b) 'ovitas' or flat meadow land adjacent to paddy fields.
- (ii) High land areas—(a) land under tree crops  
(b) jungle and scrubland.
- (iii) Homestead gardens with house site and "residing garden."

Residential and other urban uses covered less than 10 per cent of the land area in 1900 (Fig. 3). Today only 15-20 per cent of agricultural land remain untouched.

Another characteristic feature that depicts the transitional nature of the fringe is the recent escalation of the price of buildable land. Tables 8 and 9 indicate the change in land values experienced by fringe settlements in the second crescent of suburbs.

**TABLE 8**  
**Land values per perch 1978-1981**

Settlement	1978		1979		1980		1981	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Battaramulla ..	600	2,500	1,000	3,600	3,600	6,000	2,500	7,000
Maharagama ..	1,000	2,800	2,000	4,000	2,500	10,000	3,000	12,000
Kiribathgoda ..	700	2,000	1,000	2,500	1,500	6,000	2,000	10,000

Source : Jinadasa, People's Bank Monograph, 1982.

**NARANGODAPALUWA**

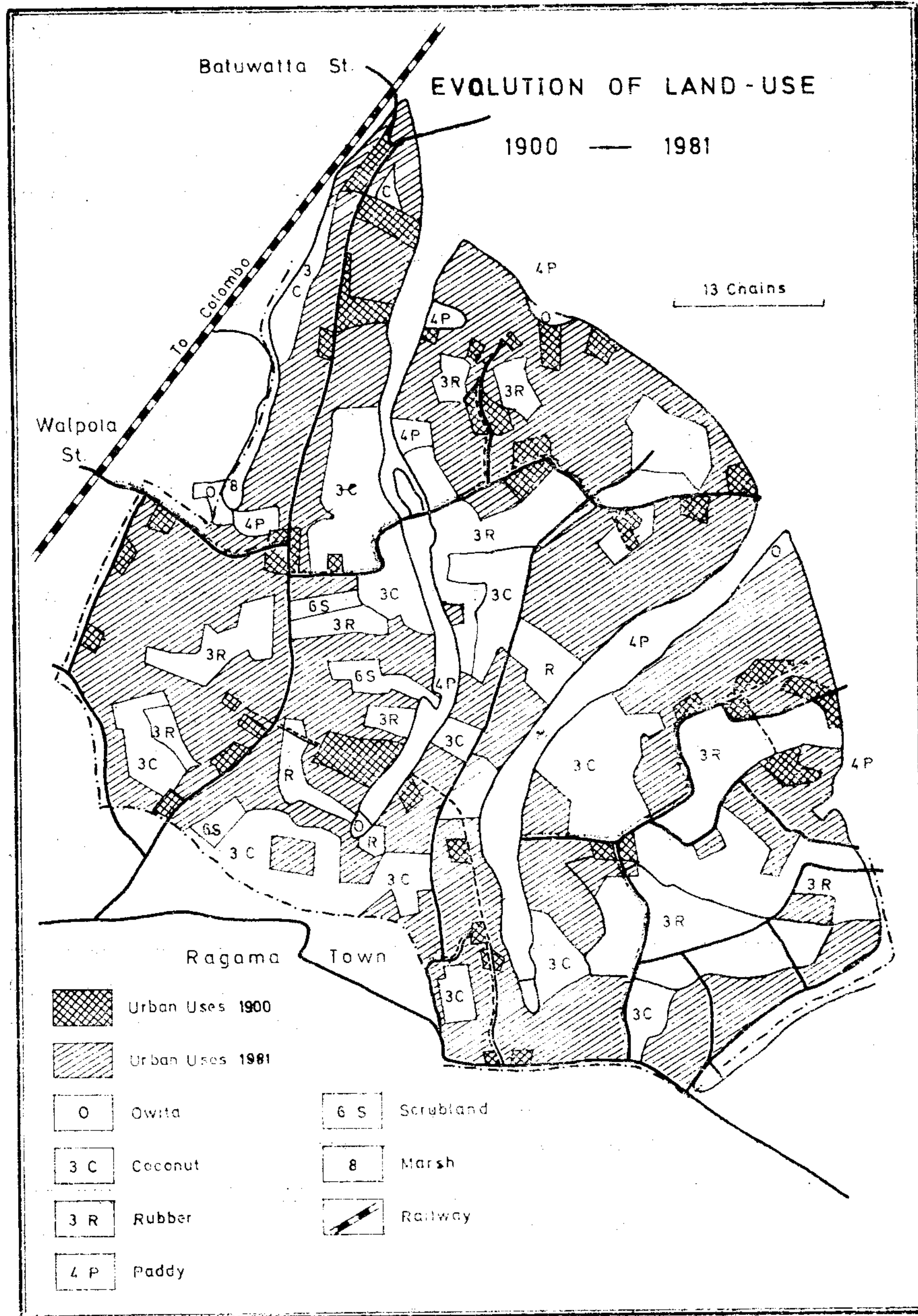


Fig 3



**TABLE 9**  
**Percentage change in land values 1978-1981**

<i>Settlement</i>	1978	1979	1979	1980	1980	1981
	<i>Min.</i>	<i>Max.</i>	<i>Min.</i>	<i>Max.</i>	<i>Min.</i>	<i>Max.</i>
Battaramulla .. ..	66.6	44.0	100.0	66.7	25.0	16.6
Maharagama .. ..	100.0	42.9	75.0	150.0	20.0	20.0
Kiribathgoda .. ..	42.9	25.0	50.0	140.0	33.3	150.0

Source : Jinadasa, People's Bank Monograph, 1982.

#### IV

#### Conclusion

Within the last half-century the fringe around Colombo has expanded creating a region that is transitional in space and time, bringing in its wake a unique set of problems.

Although administrative functions will be shifted to the new suburban capital, the relative dominance of Colombo is not expected to decline for a very long time. As long as economic, social and administrative functions are concentrated in these two cities, they will continue to attract commuters from the expanding fringe. They would have to travel longer distances since spiralling cost of land will push the lower middle and working class commuters to the outer limits of the fringe. Increasing travel time and distance involves a great deal of financial and personal hardship to the commuter and tax the already inadequate transport system.

In addition, the fringe dwellers face numerous other problems such as the absence of urban amenities and recreational facilities and lack of employment opportunities in the neighbourhood.

If unchecked, the haphazard encroachment of urban land use into the rural landscape would result in the neglect of agricultural land and the loss of—

- (a) good quality cropland,
- (b) land suitable for recreational purposes,
- (c) marshy tracts that should be retained as flood detention areas.

Rural land in the fringe can function as "green belts" by preventing unhealthy urban sprawl from spreading further and by acting as buffers against noise and nuisance.

Since the fringe is an integral component of the expanding city, its problems can only be solved by planning for the entire city region. The concept of the city region has been strongly advocated in urban planning in



recent years. In 1973, the writer stressed the need for a planning region, larger than the Colombo Region (radius 12 miles from the centre of Colombo), proposed by the Town and Country Planning Department. The writer selected a wider area, extending 20–25 miles from Colombo, which included the continuously built-up area of Colombo, the rural-urban fringe, the commuting hinterland and the densely populated areas. Its outer limits coincided with the outer boundary of the rural-urban fringe demarcated by the author (Wanasinghe, 1973). It is interesting to note that the boundaries of the Colombo Metropolitan Region demarcated by the Urban Development Authority at a later date, extend only a few miles beyond the planning region proposed by the author in 1973 and it is similar in size to the fringe delineated in 1983.

The Colombo Metropolitan Region defined by the Urban Development Authority for planning purposes covers nearly the whole of the Western Province with the exception of the South-Eastern quadrant of Kalutara District. (Fig. 4) Its total population is approximately 3,250,000. Nearly 50 per cent live in urban areas. The Metropolitan Region is divided into a system of sub-regions (Table 10).

**TABLE 10**  
**Colombo Metropolitan Region**

Location	Sub-regions	Sectoral and Sub-regional Centres	Sub-regional Population	
			1971 Urban Rural	2001 Urban Rural
Continuously Built-up Area and part of Fringe	A. Central Sub-region (i) Colombo Urban Area	Colombo	1,244 102	1,950 —
	(ii) Suburban clusters (a) N. Eastern (b) Eastern (c) Southern	Ragama Gampaha Homagama Panadura	179 699	560 830
Fringe	B. Northern Sub-region	Negombo	95 207	180 220
	C. North-Eastern sub-region	Veyangoda	6 169	50 200
	D. Eastern sub-region	Avissawella	16 142	60 170
	E. South-Eastern sub-region	Horana	8 153	50 180
	F. Southern sub-region	Kalutara	75 155	150 200

Source : Colombo Master Plan.

The central sub-region contains the continuously built-up area of Colombo and its suburbs as well as a section of the fringe (suburban clusters), that is

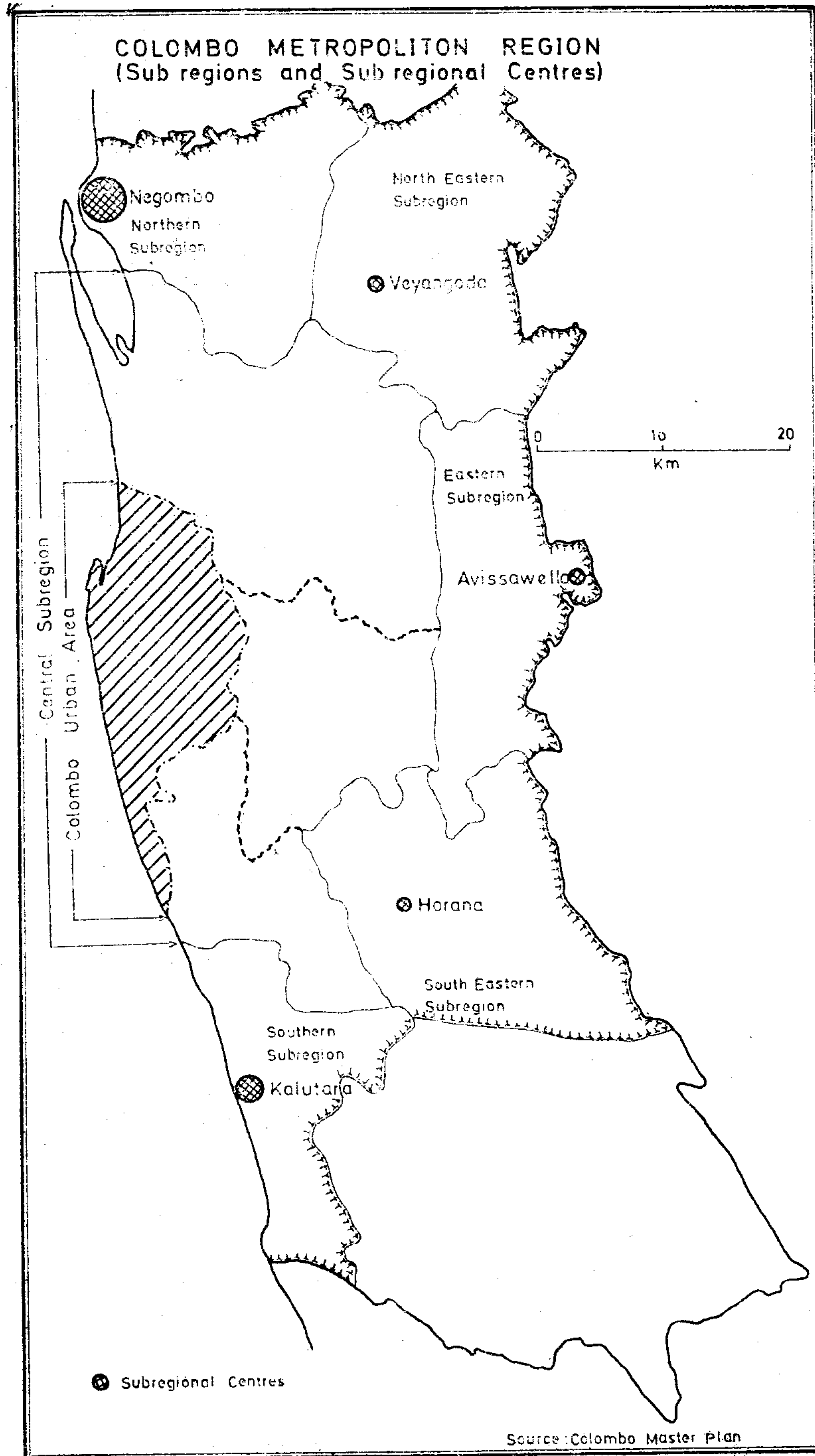


Fig : 4

being rapidly converted into an urbanized mass. The outer sub-regions have urban, rural and rural settlements. A sub-regional centre has been selected from each region and in order to discourage excessive concentration of social, economic and administrative activities in Colombo, the plan proposes to provide employment opportunities, housing social facilities and services in the sub-regional centres. Industrial activities will be encouraged in the areas in and around the Export Promotion Zones at Katunayake and Biyagama, around Oruwela, Gampaha, Veyangoda and in the sub-regional centres. Higher-grade social facilities will be located at sub-regional centres and in the suburban clusters.

In future, the rural-urban fringe will expand beyond the limits of the Western Province since two of the sub-regional centres viz; Negombo and Avissawella are located near the outer limits of the planning region. The problems faced by the fringe will be alleviated to some extent by the decentralization of job opportunities, services and urban amenities and by the provision of an efficient transport system but there will not be a decline in the spontaneous suburbanization of manufacturing, office and residential activities to the fringe close to the Central City at present, since Colombo and Sri Jayawardenepura will continue to dominate the region for a long time.

#### **References**

- Dobriner, W.M., *Class in Suburbia*, New Jersey, 1983.
- Geddes, R., *Town Planning in Colombo*, *Sessional Paper*, 3, 1921 Colombo, 1922.
- Golledge, R G., *Sydney's Metropolitan Fringe : A study in urban rural relations*, *Australian Geographer*, 7, 1960 104-116.
- Jinadasa, M., *Land Value Changes between 1977-1981, with Special Reference to Kotte Area*, People's Bank, Research Department Monograph, 1982.
- Johnson, James H., *Suburban Growth : Geographical Processes at the Edge of the Western City*, London, 1974.
- Kurtz, R.A. and Eicher, J.B. *Fringe and Suburb : A confusion of concepts*, *Social Forces*, 1958, 37, 32-37.
- Kurtz, R.A. and Smith Joel, *Social life in the Rural-urban Fringe*, *Rural Sociology*, March, 1961, 29.
- Martin, Walter, T. *The Rural-urban Fringe : A study of Adjustment to Residence location*, University of Oregon Monographs 1, 1953.
- Pahl, R.E. *Urbs in Rure*, London School of Economics, *Geographical Papers*, 2, 1965.
- Pryor, Robin J., *A Sampling Frame for the rural-urban fringe*, *Professional Geographer* 20 (4), 1968.
- Thomas, David, *The Urban Fringe : Approaches and Attitudes in Suburban Growth : Geographical Processes at the edge of the Western City (16 - 29)* ed: James H. Johnson, London, 1974.
- Wanasinghe, Y.A.D.S. *Rural Settlement Changes in the Western Province of Ceylon*, Unpublished Ph. D. Thesis, 1973.
- Whitehand, J.W.R. *The Settlement Morphology of London's Cocktail belt*, *Tijdschrift voor Economische en Sociale Geografie*, 58 (20-27) 1967.