

INDUSTRIAL DEVELOPMENT AND URBAN GROWTH-A CASE STUDY OF THE COLOMBO REGION

By

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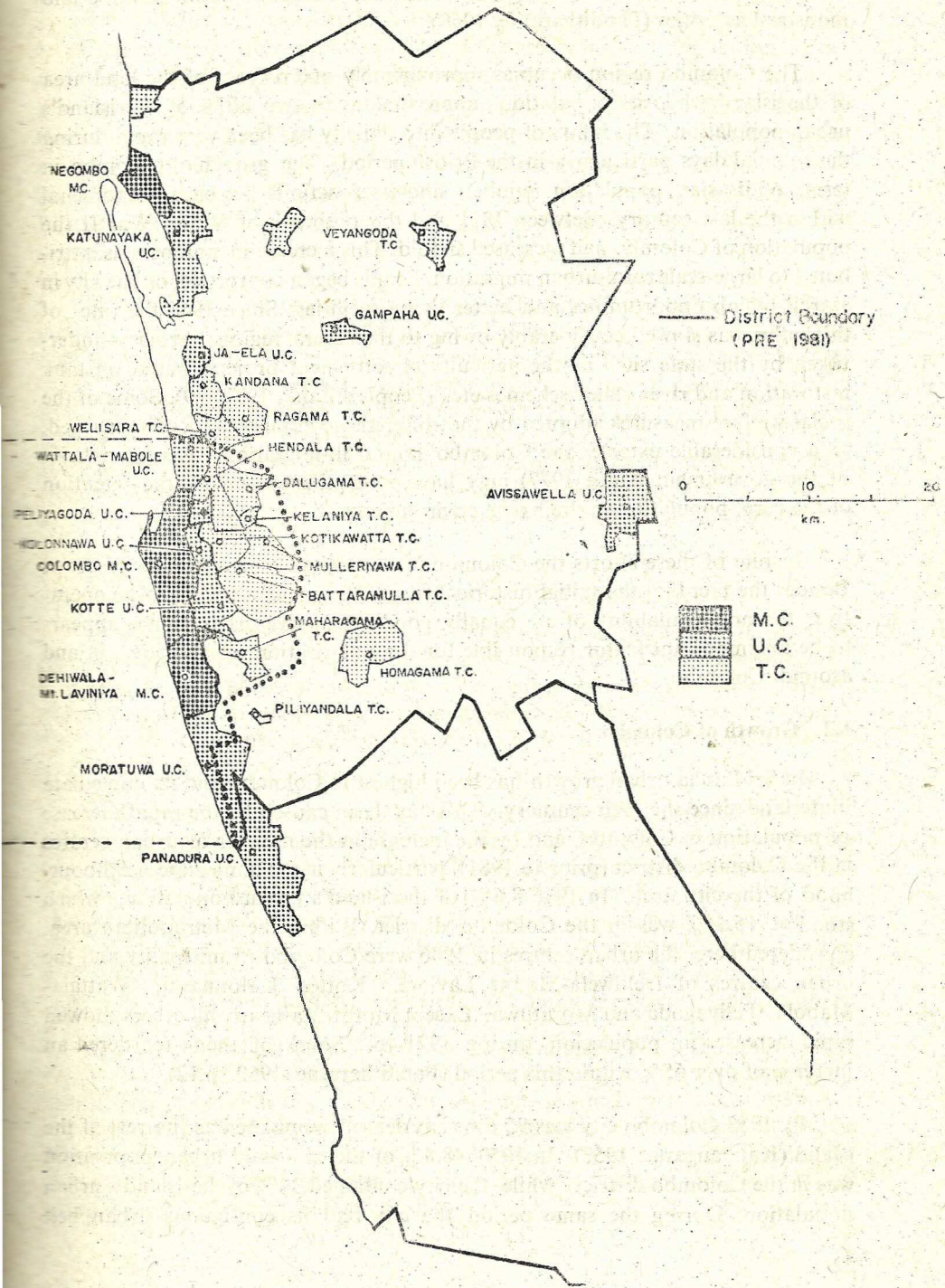
This study is limited, in the main, to the built up area consisting of the city of Colombo and several urban centres skirting the city. This large urban belt, which will be referred to as the Colombo region and/or Colombo Metropolitan area in this study, includes the municipal areas of Colombo, and Dehiwela-Mount Lavinia, the urban areas of Wattala-Mabola, Peliyagoda, Kolonnawa, Kotte, and Moratuwa, and the Town Council areas of Hendela, Dalugama, Kelaniya, Kotikawatta, Mulleriyawe, Battaramulla and Maharagama (see Fig. 1.1). This delineation approximates to the urban area considered by H. A. Hosse (1966) and the Colombo urban area as demarcated in the Colombo Master Plan Project Report (1978). Some of the urban areas lying immediately outside this belt such as the urban council areas of Ja-ela, Homagama, Welisara and Piliyandala too will be considered whenever relevant. The point will also be made that processes such as industrial development and urban growth cannot be forced into territorial boundaries.

This analysis of the development and growth of manufacturing industries within this metropolitan area will be from a spatial as well as a temporal point of view. This study will be made mainly in the context of the urban growth that has taken place within this urban belt. The term urban growth will refer in this study, to the concentration and increase of population in cities or urban places or/to an increase in the size of the population resident in an urban place. As this study probes the possible relationship between industrial development and urban growth in the selected area it attempts to view the problem from both temporal and spatial angles. The study is largely confined to the period after World War II up to 1979. A brief historical recount of urban growth of Colombo is presented initially as background information for the main analysis.

1.1 Development of Colombo:- A Historical Perspective

Colombo has remained the premier port and city of the island from colonial days. It was, to begin with, a trading settlement with a port, before it became the premier port and the capital city of the island in 1833. The growth and development of the city was facilitated largely by the development of the Colombo harbour, the growth of the plantation industry, the opening of the Suez canal in 1869 and the subsequent development of its road and rail conne-

Fig.1.1 COLOMBO METROPOLITAN REGION AND OTHER URBAN AREAS



ctions to many parts of the island. These developments inevitably led to it becoming the premier city for all commercial, financial, administrative and industrial activities (Panditharatne, 1960).

The Colombo region occupies approximately one percent of the land area of the island while its population approximates to two fifths of the island's urban population. The influx of people into the city has been very rapid during the colonial days particularly in the British period. The growth of Colombo in terms of its size, population numbers and its functions has been phenomenal within the last century. Between 1871 and the outbreak of World War II the population of Colombo had increased sixfold. This increase in numbers is attributed to large-scale rural-urban migration. People began converging on the city in search of job opportunities and better living facilities. Since 1946 the rate of this influx has slowed considerably owing to the several regional projects undertaken by the state such as the agricultural settlement projects based on tank restoration and river valley schemes etc. (People's Bank, 1977, p.9). Some of the social welfare measures adopted by the different governments too discouraged, to a considerable extent, the Colombo bound in-migration. Recent policies of the government (since 1977) may have strengthened further the retention of the rural population in their own environments.

In spite of these efforts the Colombo Metropolitan area continues to grow. Besides the fact that the initial/historical momentum is continuing to be operative, the non-availability of an equally good alternative urban centre appears to be an important factor responsible for the polarisation of activities in and around Colombo.

1.2 Growth of Colombo

In Sri Lanka urban growth has been highest in Colombo and its immediate hinterland since the 19th century. This has been caused by the rapid increase of population in Colombo, and by the increase in the number of urban centres in the Colombo district (prior to 1981), particularly in the immediate neighbourhood of the city itself. In 1946 8.6% of the island's urban population, which stood at 15.2%, was in the Colombo district. Within the Metropolitan area, considered here, the urban centres in 1946 were Colombo Municipality and the urban centres of Dehiwela-Mount Lavinia, Kotte, Kolonnawa, Wattala-Mabola, Peliyagoda and Moratuwa. Except Moratuwa nearly all others showed rapid increases in population during 1921-46. Some of them registered an increase of over 65% within this period (Panditharatne, 1960, p.12).

By 1953 Colombo city was 95 times as densely populated as the rest of the island (Kannangara, 1953). In 1953, 48.8% of the all-island urban population was in the Colombo district, while the city contained 34% of the island's urban population. During the same period the city and its contiguous urban belt

accounted for 62.9% of the all island urban population. Of the new urban council areas that were demarcated during 1953-63, 4 were in the suburbs of Colombo. This was an indication of the increase of urban population as well as of the multiplication of points of heavy concentration of population in the Colombo Metropolitan area. During 1963-71 the number of urban councils and town councils increased with new demarcations coming into force. During this period therefore, the growth of urban population appeared to be phenomenal as the conferment of the status of urban councils and town councils on a large number of local bodies brought the population in these areas within its fold. By 1971 51.8% of the all island urban population was in the Colombo district.

While the overall concentration in the Colombo city and its immediate suburbs was taking place a definite drop in the density of population in the core area of the city was discernible accompanied by a shift towards the peripheral areas. Table 1.1 shows clearly the drop in the growth rate of population in the city while the suburbs grew rapidly registering growth rates much higher than the national average. The phenomenal growth of these outer areas (see table 1.2) was apparently due to the shift from the core area and also due to the preference of the in-migrants into the urban belt to settle in these peripheral areas where housing and other facilities were easier to obtain (Silva and Gunawardene, 1971, p. 47).

2.1 Industrial Development and Growth of the Metropolitan Area

In many advanced countries, industrialisation and urbanisation have taken place almost simultaneously. These processes have influenced each other in a mutual cause-and-effect manner. In the developing countries on the other hand, the process of industrialisation started later, but is proceeding much more rapidly than in the developed countries (Haggett, 1979, p. 323). Colombo in Sri Lanka is a case in point.

In Colombo, it is quite apparent as indicated in section 1.1 that the development of the trading settlement and the port provided the initial impetus to industrial development in the area. When the Portuguese captured the Muslim trading settlement in Colombo, the first garrisoned factory was established in 1518 (Panditharatne, 1960, p.60). This factory was subsequently made a Fort. During the Dutch regime several other industrial activities were begun in the settlement giving it a new functional basis. They were boat building and repair, rope and coir making, tannery, bakeries, shoe making, carpentry and distilling.

During the British period, besides the development of the trading and commercial activities, additional industries like plumbago curing, metal working, production of coconut oil, desiccated coconut, production of tea, cardamom, arecanut etc. were begun in Colombo which attracted large numbers of people into the city. The influx of the people into the city was so rapid that by the first quarter of this century overcrowding became a problem in Colombo and 1/7 th of the city's area consisted of slums.

TABLE 1.1

Average Annual Growth Rates of Urban population in Colombo and Sri Lanka

	1946—53	1953—63	1963—71
Colombo City	2.35	1.81	1.14
Suburbs*	4.5	3.4	3.7
Colombo District	3.4	2.1	2.7
Sri Lanka	3.1	2.8	2.6

Sources:- Escap Country Monograph Series No. 4, 1976, U.N; Marga Journal, Vol. 2, No. 1 1973, p.49

* Growth rates of some urban centres (63-71) :- Kotte-2.6% Maharagama - 5.0%, Dehiwela Mount Lavinia - 4.0%, Peliyagoda -7.7% Kolonnawa - 3.5%.

TABLE 1.2

Intercensal increase and percentage increase of Acreage and Population of Colombo city 1871-1981

Year	Increase in Acreage	Percentage Increase	Increase in Population	Percentage Increase
1871-81	-	-	14,654	15.0
81-91	-	-	16,323	14.8
91-01	1.05	11.1	27,866	22.0
01-11	1.43	13.6	56,853	36.6
11-21	1.00	8.4	32,839	15.6
21-31	0.07	0.54	39,992	16.4
31-46	0.27	2.07	77,919	27.4
46-53	0.60	4.5	63,807	17.6
53-63	0.65	3.24	85,517	20.0
63-71	-	-	50,516	9.9
71-81*	-	-	23,616	4.0

Source:- Hulugalle, H. A. J, Centenary Publication of the Colombo Municipality
*Handbook of Census & Statistics, 1981

Subsequently a significant development in the industrial sector of Colombo was in the area of power production and transport. The production units in these sectors were located away from the city centre unlike in the previous period. They were the Railway workshop (at Ratmalana), Stanley Power station (at Grandpass) and other municipal workshops. This shift in the location of these industries and other factors influenced considerably the distribution of population within the city. Though a significant number began shifting towards the south and north east, where the new units were located, the congestion in the city centre did not seem to ease. This prompted a commission to recommend the shift of industries, factories and mills out of the centre of the city with provisions for easy commuting. These recommendations remained unimplemented, and the congestion in the city centre worsened with the establishment of additional industries. World War I conditions however, altered this situation temporarily by dislocating the people.

Besides this shift of industries and people from the centre to the south and north of the city, there was a substantial movement of people out of the city during the depression of the 30's which led to the gradual growth of the peripheral regions, initially as residential areas with some service facilities. The siting of factories such as the ones set up for the manufacture of soap and safety matches in these peripheral areas in the north of the city hastened further the shift of the people.

Industrialisation of a planned manner was evident in Sri Lanka just prior to the World War II period. The state was keen to establish pilot factories with a certain amount of mechanisation merely to pave the way for private investment in industry. By 1939 the only definite move taken was the setting up of a model coir factory in Slave Island area, an already congested area of the city. Subsequently when World War II broke out, this factory was shifted to an old desiccated coconut mill in Katunayake, 25 miles north of the city. The War period witnessed the establishment of hastily-erected factories equipped with second-hand and/or inefficient machinery, both by the state and by the private sector. A steel rolling factory was opened in Maradana (centre of the city) in 1941. A glass factory which was being planned to be located in the city centre was subsequently shifted to Nattandiya, 40 miles north of the city. Similarly a factory to produce wrapping paper which was to be in the city itself was moved to Kakkapalliya, 45 miles north of Colombo.

A ceramic factory too was set up in Negombo, 23 miles north of Colombo in 1944. The others were the drug factory located in the city-centre (Maradana), Tannery and Shoe factory within the city limits in Mattakkuliya, and acetic acid plant located at Madampe, 43 miles north of Colombo. A hat factory established in the city in 1941 was burnt down subsequently in 1944. Though these industries were developed during the War period to serve war scarcities, these had an impact on the subsequent trends in the development of industries in the island. But for military considerations most, if not all, industries would have been located in the city itself (Rasanayagam, 1972- p.15).

Immediately after the war these ventures could not continue to function without losses in the face of competition. Although protection was provided through legislation in the form of the Industrial Products Act No. 18 of 1949, most of these ventures could not continue to be viable and had to be closed down. Factories established for the manufacture of acetic acid, ceramic ware, paper, drugs, and the rice mill and steel rolling mills were closed down. Leather and plywood were to continue after reorganisation.

Several government-sponsored factories were established after 1956. They were the Iron and steel plant at Oruwela (Colombo district), Tyre and tube factory at Kelaniya (Colombo Metropolitan Area), Hardware project at Yakkala

(Colombo district), Cast iron foundry at Enderamulla (Colombo Metropolitan Area), Mutwal Flour mill (Colombo city), Silicate brick factory at Ekala (Colombo district), and three textile mills (Colombo district). This marked geographical clustering pointed to the total dependence of these factories upon materials imported through the Colombo harbour and markets available in the Colombo area. In the early sixties, with the deterioration of the country's balance of payment position, a programme of import substitution was begun, which saw the proliferation of several manufacturing units in and around Colombo. This aggravated the congestion in the Colombo region further. These were largely private enterprises.

The first industrial estate too was located north of Colombo city in Ekala. During the same period, however, branch plants in cement, paper, sugar and plywood were located in widely dispersed locations away from Colombo. The petroleum refinery was located in Colombo near the harbour for obvious reasons. Private industrial ventures continued to be established in and around Colombo with the encouragement given to private enterprise by the government that came into power, in 1965. In the absence of clear policy indications on locational aspects, nearly all industrial establishments preferred to operate in Colombo. This situation continued in the 70's too and more than 81% of all industrial units in the country were functioning in and around Colombo (Central Bank, 1978).

Efforts were made by the state in the 70's to spell out its policies on industries with special mention made of locational aspects. But in the absence of effective measures, industries continued to cluster in and around Colombo. Even within the city limits the already-congested areas continued to receive additional industrial units causing several types of urban problems." *The Colombo Municipal Council made attempts to alleviate this problem of congestion in the city by advocating the shift of some of the industries out of the city limits (Colombo Municipal Minutes, 1974, p.28,31). Their efforts proved futile and the congestion continues to prevail.

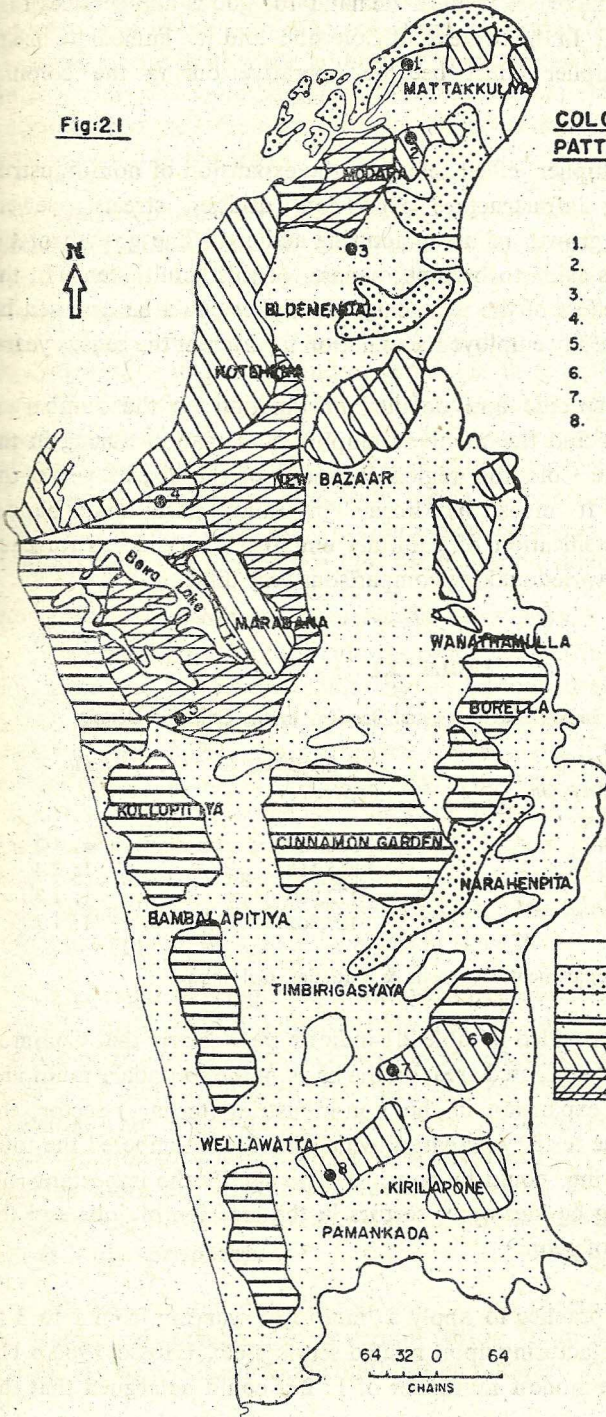
2.2 Manufacturing Employment and Urban Growth

Manufacturing is a vital employment generating sector of an economy. Employment created by manufacturing leads to a spinoff of new job creation in several sectors causing centripetal flow of people towards the manufacturing centres. In this respect manufacturing employment has a significant link to urban growth. This process has been very effectively described by Allan Pred (1966) in terms of circular and cumulative causation. Central to this process of growth, according to Pred, are the impacts of two multiplier effects: the initial multiplier and the secondary multiplier. The initial multiplier effect is indicated

* Comparison of figure 2.1 in this study and figure 1 in Panditharatne, 1965, p.145, showing Colombo's industrial zones in 1960, shows that industrial zones within the city limits have not changed over time although additional industrial units were installed in these areas.

Fig:2.1

**COLOMBO CITY : LAND USE
PATTERN IN THE YEAR 1971**



1. Fishing Crafts Yards
2. Tobacco Corporation
3. Gas & Water Works Ltd.
4. Gas Supply
5. Petroleum Corporation
6. Fruit-Canning Factory
7. Gas Supply
8. Spinning Mills

-  OPEN SACS
-  LOWLYING AREAS
-  RESIDENTIAL ZONE
-  COMMERCIAL ZONE
-  INDUSTRIAL ZONE
-  MIXED ZONE

64 32 0 64
CHAINS

Source: Master Plan Project, Colombo Urban Area Development Plan Vol.2
U.N.D.P., UDA, Colombo, 1978, Figure 14

as a process created by increases in local demand for goods and services that initiates the process itself. In the context of Colombo and its immediate urban region, the initial multiplier effect became operative during the colonial period itself.

The secondary multiplier effect refers to the expansion of non-industrial (tertiary) jobs including infrastructure expansion (utilities, streets, sewers etc.) in response to the growth of manufacturing activity. The growth of the construction industry is said to become a part of this multiplier. In the Colombo region the effect of the secondary multiplier could be assessed by studying the data on gainfully employed population for each of the census years.

In the absence of specific and detailed information on the number of industrial establishments and the numbers employed in manufacturing in the urban centres within the Colombo region for each of the census years, the district data were used. It must be borne in mind here that besides several overlaps, the classification of gainfully employed, considered for each of the census years, has varied making comparisons very difficult.

TABLE 2.1

Gainfully Employed in Manufacturing and Services in the Colombo District

<i>Year</i>	<i>No. Employed in Manufacturing</i>	<i>No. Employed in Services</i>	<i>Ratio</i>
1946	74,500	117,500	1: 1.5
1953	89,317	215,116	1: 2.4
1963	98,480	172,960	1: 1.8
1971	110,803	187,305	1: 1.7

Source:- Census Reports, Department of Census & Statistics, Colombo.

Although the data provided in table 2.1 indicate very clearly that Colombo region is basically a service oriented area, on the basis of the secondary multiplier effect, which causes an expansion in the non-industrial (tertiary) sector, the numbers employed in the tertiary activities, which have outnumbered the total employed in manufacturing, could be considered to signify the important role played by manufacturing besides other sectors in the creation of jobs and the consequent convergence of people.

It is an established practice to apply a 'multiplier' varying from 1 to 3 to assess the effect of manufacturing upon related services etc. (Hosse, 1966,p.11). In this context using the modest multiplier of 1: 2 it could be argued that the

manufacturing sector would have contributed to the multiplication of job opportunities in the tertiary sector of the Colombo region. Creation of additional jobs brings in its wake additional people in the form of families to the area. In this respect it could be argued that the numbers employed in the manufacturing sector in the Colombo region, could have contributed considerably towards urban growth in the area.

Similar conclusions could be arrived at by using the basic nonbasic ratios. Urban activities could be categorised as basic and nonbasic. Basic activities are those that sell their goods or services to people or businesses outside the city, bringing revenue into the local area. Non basic activities are the service or ancillary activities that serve the local area. A large number of the manufacturing units in the Colombo region sell their goods outside the urban belt as well. Therefore they could well be categorised as basic. According to the proponents of this approach, increase in the number of basic jobs in an area normally generates additional jobs in the non basic sector. Therefore the increase in the number employed in manufacturing as indicated in table 2.1 would have inevitably led to an increase in the number of service jobs. This in turn would have brought in more people into the Colombo region.

2.3 Industrial decentralisation and the Metropolis

The rapid growth of the suburbs or the urban fringe of the city of Colombo (see table 1.1), has had a definite impact on industrial development in the peripheral areas. This process gathered momentum particularly after 1960/61 as seen in section 2.1. As mentioned in section 2.1 the number of industrial establishment increased phenomenally with the introduction of the policy of import substitution in the early 60's. Of these a significant number opted for locations outside city limits owing to the lack of suitable and cheap land (see also Silva and Gunawardene, 1971,p.45; Karunatileke, 1971, p.222), and to the availability of good transport facilities to these peripheral areas. This trend has apparently gained momentum since then.

The rapid development of industries in the city area of Colombo since World War II, particularly in certain parts of the city (see section 2.1), resulted in heavy congestion and acute shortage of space for factories. Despite this more and more industries gravitated towards these locations. An imbalance in the supply and demand for space for factories in the city became more apparent. This situation obviously made some of the growing urban areas in the peripheral regions more attractive for industrial location. The government's industrial policy of the 70's with its spatial dimensions may have contributed to this move towards the periphery.

Studies on industrial decentralisation are generally based on data related to factory employment over a certain period, floor space details etc. (Keeble, 1968). As such information could not be obtained in the case of the industries

in the Colombo region, this analysis on industrial decentralisation had to be based on a comprehensive list of factories with locational details obtained from several sources.

The information compiled thus provides ample insight into the volume and character of industrial movements. Movement here does not imply a complete shift:- lock, stock and barrel. It is used to mean the establishment of new units of industrial categories already found within the Colombo Municipal limits, in the other urban areas. As the mode of data collection differed from source to source each set of data had to be dealt with separately. The Ferguson's Ceylon Directory furnishes information on industries in the private sector from as early as the beginning of this century. As indicated in table 2.2 these industrial establishments have been categorised for this study into three groups on the basis of the dates of establishment.

Of the 17 industries started prior to 1948 in the Colombo region, only 5 have been located outside the city of Colombo, in Moratuwa, Panadura, Kelaniya and Ja-ela, while during 1948-60 11 out of a total of 23 industries established in the Colombo district, were located outside the city limits. These were located in Ratmalana, Kotte, Peliyagoda, Ja-ela and Kelaniya. During the period after 1961, a large number of industries, as much as 105, have been located in the Colombo region. Of these 78 were outside the city, while only 37 were located within the city. A third of the industries outside the city were located in the southern suburbs of Ratmalana, Moratuwa and Panadura while a fourth were established along the high level road connecting the city to Maharama and Kotte areas. Another third were located in the northern suburbs along the road leading to Negombo.

Table 2.3 provides very limited information on industrial movement. Movement towards Dehiwela- - Mount Lavinia, Ratmalana, and Nugegoda could not be identified as the totals for the city of Colombo include these details. As indicated in Table 2.3 more than a quarter of the leather, rubber, wood, and paper industries established before 1968 were located in the suburbs, while approximately a third of the food and beverages industries were also established outside the city. The information provided by H. N. S. Karunatileke (1971, p.198) on the location of small industries in the Colombo district upto 1968, indicate that a total of 40% were located outside the city.

More detailed information on industrial decentralisation was obtained from the Industrial Development Board and the Ministry of Industries and Scientific Affairs (see Table 2.4). These sources provide data on all private and public industries established upto 1978. The dates of establishment begun prior to 1968 are not given. Therefore initially a division of the industrial establishments on this basis was adopted to study the extent to which the centrifugal forces were active before and after that year. Figure 2.2 shows this division of those industries established inside and outside the city too. This figure indicates very clearly the marked trend towards industrial decentralisation upto 1978.

TABLE 2.2

Number of Manufacturing Industries (private) located in the Colombo region

<i>Industrial Group</i>					<i>Prior to 1948</i>	<i>1948-60</i>	<i>After 1961</i>
1. Food, Beverages & Tobacco	--	--	--	--	7	1	9
2. Manufacture of textiles, wearing apparel & Made-up garments	--	--	--	--	1	5	20
3. Manufacture of Chemicals & Chemical Products	--	--	--	--	4	2	14
4. Manufacture of leather, rubber, wood & Paper	--	--	--	--	3	5	7
5. Manufacture of Non-metallic mineral products	--	--	--	--	—	1	2
6. Base Metal Industries-Manufacture of metal products	--	--	--	--	—	3	14
7. Manufacture of machinery & Transport equipment	--	--	--	--	1	—	8
8. Manufacture of electrical machinery	--	--	--	--	1	—	16
9. Miscellaneous Manufacturing Industries	--	--	--	--	—	6	15
Total	--	--	--	--	17	23	105

Source:- Ferguson's Ceylon Directory

TABLE 2.3

(a) Regional distribution of leather, Rubber, Wood and Paper Industries in Sri Lanka

	Year of Establishment						Date not known No.	Total
	Before 1950	1951-55	1956-60	1961-64	1965-68			
	No.	No.	No.	No.	No.			
Colombo *	42	15	29	57	10	7	160	
Suburbs	17	5	12	22	1	2	59	
Rest of the Island	13	7	7	23	2	3	55	
Total	72	27	48	102	13	12	274	

(b) Regional distribution of Food / Beverage Industries in Sri Lanka

	Year of Establishment						Date not known No.	Total
	Before 1950	1951-55	1956-60	1961-64	1965-68			
	No.	No.	No.	No.	No.			
Colombo	36	17	19	25	5	7	109	
Suburbs	7	6	11	21	5	3	53	
Rest of the Island	23	10	11	27	10	9	100	
Total	66	33	41	73	20	19	252	

* Includes Dehiwela-Mount Lavinia, Ratmalana & Nugegoda

Source:- Industrial Development Board, See Silva & Gunawardene, 1971, p. 60-61

TABLE 2.4

Location of Industries in the Colombo Region Before and After 1968

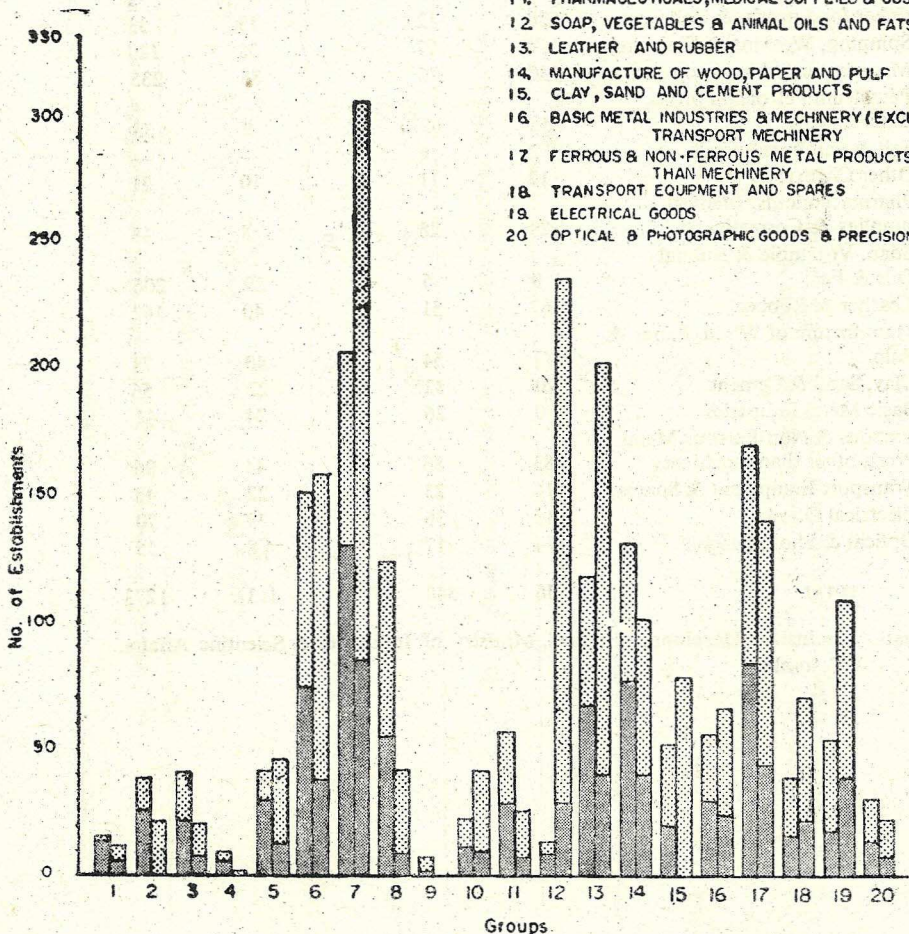
Industrial Group	Before 1968		After 1968	
	In Col. M.C	Outside Col. M.C	Inside Col. M.C	Outside Col. M.C
1. Meat, Fish & Milk Prods.	15	3	6	6
2. Friut & Vegetable Prods.	27	13	6	16
3. Confectionery, Bakery & Cereals	22	19	8	13
4. Spirits, Alcoholic Beverages & Aerated waters	6	4	—	2
5. Other food prods, & Tobacco	30	12	13	33
6. Spinning, Weaving & Finishing	74	77	38	120
7. Manufacture of made-up garments	130	76	85	235
8. Petroleum Petroleum prods. & Chemicals	55	69	9	33
9. Salt & Salt based prods	2	6	—	—
10. Other Chemicals	12	11	10	31
11. Pharmaceuticals, Medical supplies & Cosmetics	29	28	8	18
12. Soap, Vegetable & Animal Oils & Fats	9	5	29	206
13. Leather & Rubber	67	51	40	162
14. Manufacture of Wood, Paper & Pulp	77	54	40	71
15. Clay, Sand & Cement	20	32	22	56
16. Basic Metal Industries	30	26	24	42
17. Ferrous & Non-Ferrous Metal Prods other than machinery	83	86	44	96
18. Transport Equipment & Spares	16	23	22	48
19. Electrical Goods	18	36	39	70
20. Optical & Photo goods	14	17	8	15
TOTAL	736	648	413	1273

Sources:- Industrial Development Board, Ministry of Industries & Scientific Affairs,
Colombo

Fig.22

INDUSTRIAL DECENTRALISATION IN THE COLOMBO REGION
(Before and After 1968)

1. MEAT, FISH AND MILK PRODUCTS
2. FRUIT AND VEGETABLE PRODUCTS
3. CONFECTIONERY, BAKERY AND CEREAL PRODUCTS
4. SPIRITS, ALCOHOLIC BEVERAGES & AERATED WATER
5. OTHER FOOD PRODUCTS AND TOBACCO
6. SPINNING, WEAVING & FINISHING OF TEXTILES & WOVEN TEXTILE PRODUCTS
7. MANUFACTURE OF MADE-UP GARMENTS
8. PETROLEUM, PETROLEUM PRODUCTS & PETRO-CHEMICALS
9. SALT AND SALT BASED CHEMICALS
10. OTHER CHEMICALS
11. PHARMACEUTICALS, MEDICAL SUPPLIES & COSMETICS
12. SOAP, VEGETABLES & ANIMAL OILS AND FATS
13. LEATHER AND RUBBER
14. MANUFACTURE OF WOOD, PAPER AND PULF
15. CLAY, SAND AND CEMENT PRODUCTS
16. BASIC METAL INDUSTRIES & MECHINERY (EXCLUDING) TRANSPORT MECHINERY
17. FERROUS & NON-FERROUS METAL PRODUCTS OTHER THAN MECHINERY
18. TRANSPORT EQUIPMENT AND SPARES
19. ELECTRICAL GOODS
20. OPTICAL & PHOTOGRAPHIC GOODS & PRECISION INSTRUMENTS



Within C.M.C.

 Outside C.M.C.

 Prior to 1968 After 1968

A look at the character and type of industries that were established outside the city limits would reveal that the most dominant groups of industries were the manufacture of made-up garments and soap, vegetable and animal oils & fats. A large number of units in other groups of industries such as spinning, weaving & finishing of textiles and the leather and rubber goods too were established outside the city of Colombo (see Table 2.4).*

The relative importance of the different categories of industries that have apparently moved could be assessed by taking into account the percentages in each broad category involved. As indicated in Table 2.4 the dominant categories were the textiles and food groups. The highest number of units in each of these groups have moved towards the largest peripheral urban area, namely, Dehiwela-Mount Lavinia. Wattala-Mabola and Peliyagoda in the north came second among these peripheral urban areas in terms of these decentralised industrial units.

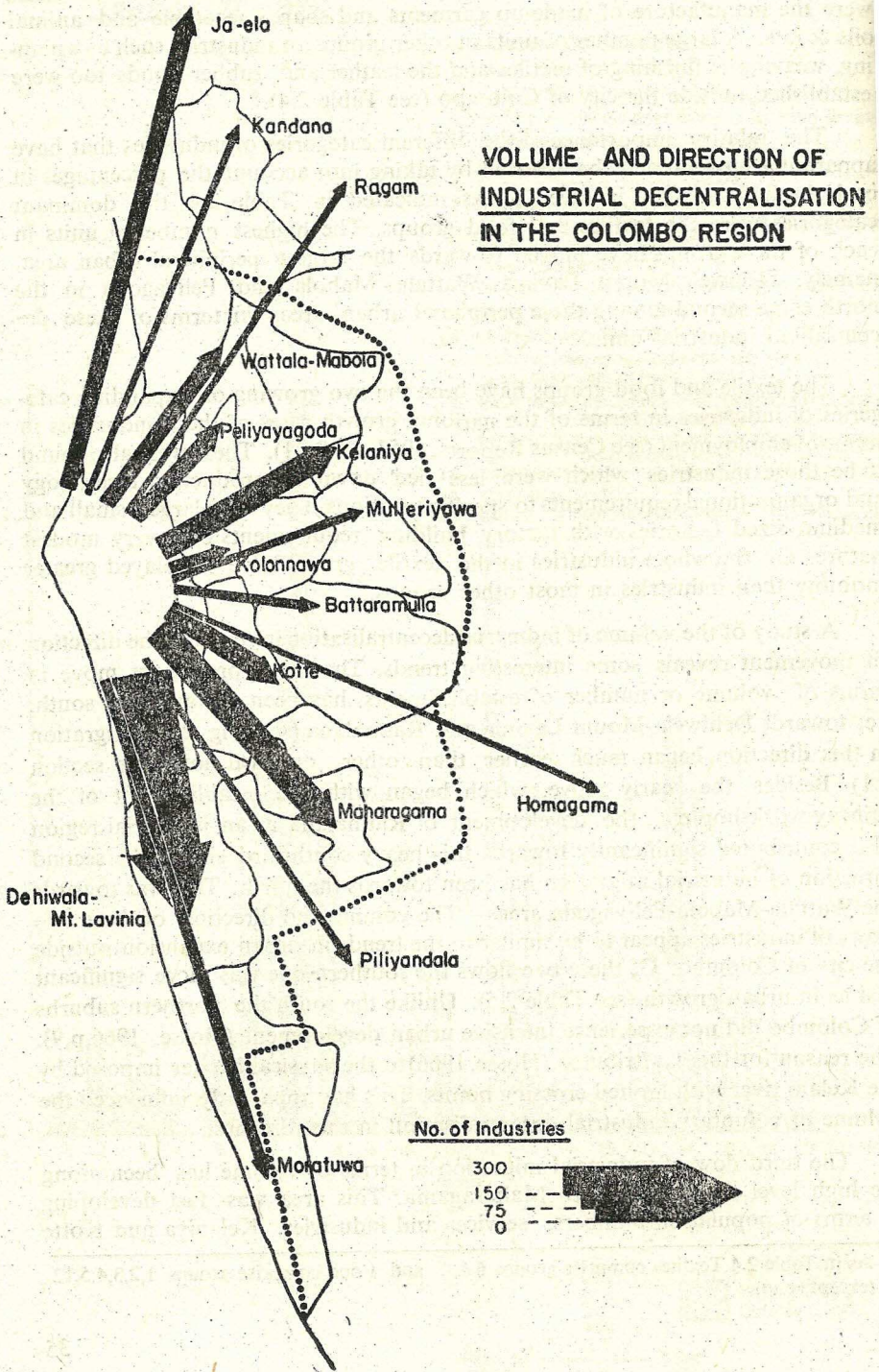
The textile and food groups have been the two growing or expanding categories of industries in terms of the national growth rates of these industries in terms of employment (see Census Reports, 1953, 63 & 71). These were also found to be those industries which were less tied down by production technology and organisational requirements to specific locations. They were largely small and medium-sized factories with factory building requirements of a very modest nature. On the whole industries in the textile group have displayed greater mobility than industries in most other groups.

A study of the volume of industrial decentralisation in terms of the direction of movement reveals some interesting trends. The most prominent move in terms of volume or number of establishments, has been towards the south, i.e. towards Dehiwela-Mount Lavinia and Ratmalana (see Fig. 2.3). Migration in this direction began much earlier than other outward flows (see section 2.1) Besides the early move, which began with the establishment of the railway workshop etc., the development of Ratmalana as an industrial region also contributed significantly towards this heavy southward shift. The second direction of industrial migration has been towards the north. This was towards the Wattala-Mabola-Peliyagoda areas. The volume and direction of these two flows of industries appear to be similar to the trends in urban expansion outside the city of Colombo. Of these two flows the southern one was more significant just as in urban growth (see Table 2.5). Unlike the south the northern suburbs of Colombo did not experience intensive urban development (Hosse, 1966, p.9). The reason for this is attributed (Hosse, 1966) to the physical barrier imposed by the Kelani river with limited crossing points. This has apparently influenced the volume of voluntary industrial decentralisation in this direction.

The third flow of industrial migration in terms of volume has been along the high level road leading to Maharagama. This area was fast developing in terms of population numbers, services and industries. Kelaniya and Kotte

* As in Table 2.4 Textiles comprise groups 6 & 7 and Food comprise groups 1,2,3,4,5,12 (except soap)

Fig.2.3



are the next two areas in terms of volume of industrial movement. At present the changes taking place in Kotte area, where the new administrative centre is being developed by the present government, may give a new fillip to this area in industrial development, which in turn would probably alter the order of importance, in terms of industrial development, of these peripheral areas. On the whole, the southward thrust has been the most dominant, with the northern and the south eastern moves following as the second and third shifts in terms of volume of movement out of the city. It is interesting to note that all significant shifts of industries have been along major routes of transportation leading out of Colombo, implying that accessibility to the Metropolis is very vital for industrial development.

3.1 Industrial Development, Urban Growth and Planning

Industrial development planning, in most economies, is a vital aspect of sectoral planning, both at the macro and micro levels. At the micro level, industrial development planning becomes largely a problem of land use, involving problems related to land requirements, siting facilities, zoning etc. At the city level industrial location becomes a vital aspect of town planning. The major objective of a town planner, as in many other areas of planning, is to balance the purely economic considerations with the need to preserve and improve the quality of the environment and the living conditions of the people. It is this conflict between economic and social considerations that makes the planning of industrial location within cities so complex.

In Colombo, though several attempts were made at urban planning none have proved to be effective. As far back as the 1920s Sri Patrick Geddes drew up a plan for Colombo emphasising the horizontal expansion of the city. This scheme was not implemented due to the limited finances of the Colombo Municipality. In 1940 Prof. Clifford Holliday prepared a town plan for Colombo. In this a functional zoning of the city for the different land uses was proposed for the first time. He also recommended the development of a satellite town to induce out-migration from the core city. Subsequently in 1950 Sir Patrick Abercrombie prepared a plan for the city of Colombo. He planned for an area of 220 square miles within a radius of 14 miles from the core city. In his plan he recommended the decentralisation of government offices, armed services and industries away from the city and the development of three new towns, viz; Ragama, Ratmalana and Homagama as satellite towns. He emphasised the necessity for regional zoning in the Metropolitan area with regulations to control landuse. This plan, which was the general planning framework for the city, was put into legal effect in 1961. The details of this framework were to be spelt out by specific local town planning schemes. But, after the preparation of the plan, the growth of Colombo was so rapid and phenomenal, that many of the original proposals lost their rationale and became less relevant and appropriate.

In the late 70's the U. N.-assisted Colombo Master Plan Project attempted once again to work out the details of a good city plan. Four possible strategies were worked out in this plan. They were: 1) to allow the continuing high concentration of people and non-agricultural activities in the Western Province, creating infrastructural and other facilities for industries and employment in other sectors, 2) to establish one major growth pole as a counter-magnet to Colombo elsewhere in the island, 3) to establish a series of regional growth centres, which would need a significant amount of manufacturing industries with atleast 5,000 jobs and 4) to establish a growth corridor (Colombo Master Plan Project Report, 1978).

Expansion of the manufacturing sector has been emphasised by the Colombo Metropolitan Region Planners (1978,p.3) as the key to the region's future economic health. They therefore, suggested the setting up of industrial clusters with different industrial types. The locations of these clusters were suggested with the need for a spatially balanced pattern in all activities and the overall pattern of urban growth and development in mind. In this context they point to the fact that expansion in the secondary sector would generate employment spinoff in the tertiary sector which they take into account in the context of urban growth in the region.*

Despite these attempts at urban planning no satisfactory measures were taken to rectify unplanned growth and congestion in the city of Colombo until the present government established the Urban Development Authority to look into these problems. There are various ways in which a national or local government agency can attempt to influence the location of industries in the context of urban planning. They could be categorised into 1) those measures aimed at general areal or regional rehabilitation and 2) those measures designed specifically to attract industrial plants. The former tends to operate on externalities while the latter generally takes the form of a direct payment or inducement to the industries. Moreover, industrial development could be discouraged in congested areas either through legal restrictions or by requiring industries to obtain prior approval for starting projects in certain areas.

Upto 1970 no account was taken of the spatial dimensions of industrial development in Sri Lanka. This inevitably led to the heavy congestion of industrial plants in and around Colombo. For the first time the industrial policy of 1970 pointed out the adverse consequences of concentrating industries in and around Colombo to the neglect of other parts of the island. The policy in respect of criteria for investment approvals in the private sector clearly indicated locational considerations in that, these private ventures had to be located in the less developed or less industrialised parts of the country. It further stipulated that small industries which are labour-intensive should be located outside the Colombo region (Ministry of Industries & Scientific Affairs, 1971).

* This provides adequate support for the argument on the effects of the secondary multiplier discussed in section, 2.2

These policy statements may have become effective if the basic infrastructure facilities in the non-urban areas had been provided in time; particularly by the proper implementation of the rural electrification programme and the development of roadways. Industries have spread instead in an uncontrolled manner into these peripheral urban areas adding to their growth problems. It is therefore imperative that a clear and effective policy on industrial location and urban development for the Colombo region be drawn up and implemented soon to arrest the growing problems of urban growth and spatial mismatch in industrial location and development.

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