PATTERNS OF URBANIZATION IN ANDHRA PRADESH, 1961 - 91

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I hereby affirm that the research for this dissertation titled, "Patterns of Urbanization in Andhra Pradesh, 1961-91" being submitted to the Jawaharlal Nehru University for the award of the degree of Master of Philosophy in Applied Economics was carried out entirely by me at the Centre for Development Studies, Thiruvananthapuram.

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Certified that this dissertation is the bonafide work of L Sudhakara Reddy. This has not been considered for the award of any other degree by any other university.

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CHAPTER I

INTRODUCTION

Urbanization is a process in which a predominantly rural population becomes urban. "Urbanization is a socio-economic outcome of the process of economic development and industrial growth. It represents the spatial dimension of the process of economic development where the factors of production, manufacturing units and localities become increasingly specialized"[1]. Urbanization is a complex process and varies a great deal across space and time. Not only the process but the factors behind these processes also vary across space and time. The complexity in the process and the factors behind it underline the need for studies at regional level with an emphasis on the regional specific features and factors underlying urbanization. The present study makes an attempt in this direction by studying the patterns and processes of urbanization and analyzing the factors underlying thereof at regional levels.

Urbanization Process: Theoretical perspectives:

Because of the multi-dimensional character of urbanization factors underlying it are studied in a multi-dimensional approach emphasizing on its various manifestations. One of the dominant perspective used in the literature to study urbanization is taking 'town' as the basic unit and analyze the growth pattern of towns. This perspective concentrates only on towns and treating the urban area as a separate entity. This perspective was criticized for not

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[1]. Census of India (1984,1).

taking into consideration the rural-urban interaction or town hinterland relationship and its impact on the process of urbanization. In the latter perspective which stresses the rural urban interaction and its impact on urbanization we can notice different approaches. One approach stresses the replication of the experience of the developed countries to analyze urbanization in the developing countries. Reissman, a proponent of this approach, argued that "... Industrial urban development in the west and in the underdeveloped countries today is the same process although greatly separated in time and space"[2]. This approach stresses the historically observed relationships between urbanization and structural changes in the economy and the relationship between the technological changes in agriculture, transport and industry and the consequent movement of capital and labor from rural to urban areas. Based on these relationships, Davis and Golden (1954) and Hoselitz (1957) argued that the present day developing countries are 'over-urbanized' implying that at comparable levels of urbanization, the present day under developing countries have low percentage of work force in industry than the developed countries. Such an approach was severely criticized by Sovani (1964) and later by Kamerschen (1969). Though such an approach was severely criticized, there was an increasing recognition that the present day developing countries are urbanizing faster with low levels of urbanization, high urban growth and high primacy rates.

Another approach stresses the specificities of the developing countries while analyzing urbanization. With in this approach one school stresses the demographic specificities of the developing

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[2] Leonard Reissman (1964) quoted in McGee T G (1971, 15).

countries. These include Kingsley Davis (1977), Samuel H Preston (1979), UN (1980), Todaro (1979) Williamson G J (1988), Mills, Becker and Williamson (1986), Rogers (1982), Ledent Jaques (1982) Rogers and Williamson (1982). According to Kingsley Davis a high natural growth rate of total population was the basic reason for the high urban growth and hence urbanization in the developing countries. He says that since the natural growth rate was high in developing countries, their urban growth was high. But the high urban growth was attributed to rapid rural-urban migration by Rogers and Williamson(1982) and Ledent (1982). According to them the difference in the natural growth rate of population in rural and urban areas is so small that the high urban growth in developing countries can not be accounted for by the difference in natural growth of population alone. They argue that the increasing rural to urban migration was the basic reason for high urban growth in developing countries. But Todaro argued that the higher urban growth in developing countries is due to high natural growth of population in urban areas which was in turn was because of the age structure of the migrants. That is migrants who come to city are young and are in the high reproductive age-group with low mortality rates. Hence, Urban areas have a high natural growth rates leading to high urban growth. These theories relies heavily on the demographic aspects of urbanization highlighting the demographic specificities of the developing countries ignoring the socio-economic and institutional of the Third World.

The other school argues that the socio-economic specificities of the developing countries are the main determinants of the process of urbanization. This school include McGee T G(1971), Moonis Raza

and Atiya Habeeb (1976), Amitab Kundu (1980 and 1983), Abanti Kundu (1983), Nagaraj (1985), Rukmani (1993) etc.,. This school tries to explain urbanization process in terms of economy wide precesses like industrialization, agricultural transformation and modernization etc., and their specificities in the developing countries. Describing the rise in urbanization, due to natural increase of the population rather than the rural-urban migration, as `Pseudo-urbanization' McGee says that the underdeveloped countries are skipping the sequence of structural transformation i.e., from agriculture to industry and then industry to services. They are getting increasingly `tertiarized'. That is the labor force absorption in service sector is increasing faster than that in the industry. He says that different economic structures exist in the Third World countries. He calls for an understanding of these socio-economic structures to analyze and theorize urbanization in the Third World. To quote him: "Thus an understanding of the economic structure of the society and the economic growth processes which are occurring is central to the analysis of the process of urbanization"[3]. A similar view is expressed by Rukmani (1993). She argues that even in developed countries a whole complex set of socio-economic changes has facilitated industrialization and urbanization. She says "to infer a causal link between industrialization or economic development on the one hand and level of urbanization on the other, on the basis of a correlation between industrialization and urbanization is to close one's eyes to the complex set of socio-economic changes underlying the process of urbanization even in the case of advanced countries. In the case of the third world such a view may

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[3]. McGee T G (1971,29).

be doubly flawed for the simple reason that the complex set of socio-economic changes witnessed by these countries in the rural as well as the industrial sector may be entirely different from the changes observed in the developed countries. The specific, unique pattern of socio-economic changes observed by the third world may lead to an entirely different pace and pattern of urbanization here"[4].

Apart from the specific socio-economic factors institutional factors were stressed by Amitab Kundu (1980), Moonis Raza and Atiya Habeeb (1976) and Abanti Kundu (1983) etc. The institutional factors include the impact of colonialism, and the developmental path followed by the nationalist government in the post-independence phase. According to them urbanization experienced by the developing countries is a result of the changes in socio-economic structure brought about by the colonialist policies and the nationalist governments especially through their impact on the agricultural and industrial sectors, development of transport and the development of growth centers. According to Amitab Kundu these institutional factors led to the development of a pattern called 'Urban Accretion' which he defines as "the distorted growth of urban centers in relation to their own economic base on the one hand and to the regional economy on the other"[5]. Nagaraj (1985) and Rukmani (1993) argue that there exists a duality in the process of urbanization in the Third World. They call it as 'Stable' and 'unstable' patterns of urbanization. These 'stable' and 'unstable' patterns were the result of economic development and/or

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[4]. Rukamani R(1993, 25).

[5]. Amitabh Kundu (1980, 25).

underdevelopment of the regions and also the regional specific factors of the regions like the agrarian structure, agricultural transformation, etc. Thus, they argue that the enclave type of development that was taking place in developing countries led to duality in the process of urbanization. In this study we follow the latter approach ie., the one which stresses the importance of rural-urban interaction and the specificities of the developing countries.

Urbanization in India and Andhra Pradesh:

Though, in India, the phenomenon of urbanization can be traced back to ancient times, the pace of urbanization gained momentum only from 1930s, especially after 1950s. However, India's urbanization is accompanied by diverse regional patterns with region specific reasons [Mohan and Pant (1982), Crook N and Dyson T(1982)]. This underline the need for studies at regional with an emphasis in regional specificities. The present study attempts to study the patterns of urbanization in Andhra Pradesh, and offer explanations at the state, regional and sub-regional levels.

The literature on urbanization in Andhra Pradesh observed two broad patterns. Koteswara Rao (1987) in his study observed a 'shift in the spatial pattern of new urbanization away from the traditional areas of urban growth' and argued that this is because of the fact that in the case of more urbanized districts the contribution of rural-urban migration to urban growth is likely to be relatively small, whereas in the least urbanized districts it plays a more prominent role. Nagaraj (1985) in his study, while comparing the urbanization patterns in Karnataka, Tamil Nadu, and Andhra Pradesh

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observed two broad patterns in Andhra Pradesh viz., 'Stable' pattern in the rich deltaic region consisting of the districts of Central Coastal Andhra[6] and an 'Unstable' pattern in the rest of the state. According to him stable pattern in Central Coastal Andhra region is due to the presence of strong linkages between the Vijayawada Urban Agglomeration (VUA) and its hinterland. Also the prevalence of wide canal irrigation network and the emergence of Vijayawada as the center of transport network etc resulted in the emergence and development of small and medium towns in the region which led to 'stable' pattern.

In rest of the regions, the 'unstable' pattern prevailed due to two different sets of reasons. In the Telangana region the 'unstable' pattern is mainly due to lack of strong linkages between Hyderabad Urban Agglomeration and its hinterland. In the rest of the unstable regions i.e., Rayalaseema and the Northern and Southern Coastal Andhra, instability is due to the lack of any strong linkages between Visakhapatnam and its hinterland in the Northern Coastal Andhra and the presence of two strong Urban Agglomerations viz., Madras and Bangalore near South Coastal Andhra and Rayalaseema regions and the relative backwardness of the regions might have resulted in the footlooseness of people and slow growth of towns and urban growth and hence led to 'unstable pattern' in the region. Thus he attributed these patterns to the enclave type of development that has taken place in Andhra Pradesh.

These studies provided interesting hypothesis explaining the urbanization in the state. The present study is essentially an

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[6]. See Chapter-2 for regionalization exercise.

extension of the earlier studies. But care is taken to analyze the issues at hand in greater detail. In this study we will make a detailed analysis of the patterns of urbanization in the state at regional, sub-regional and the district levels. Also we will try to decompose, as far as possible, the sources of the urban growth and the urbanization at all levels in the state. We will also make a functional classification of towns and analyze the structure of employment in the state. In the existing literature on Andhra Pradesh these issues are either left untouched or not analyzed in depth.

Objectives of the Study:

The following are the main objectives of this study:

(i) To analyze the patterns of urbanization across the sub-regions of the state, for the period 1961-91.

(ii) To identify the factors affecting the stability and instability of urbanization in the state.

(iii) To identify the sources of urban growth in Andhra Pradesh.

(iv) To analyze the role of migration in the process and patterns of urbanization in the state and also analyze its role in stable and unstable pattern in some parts of the state.

(v) To make a functional classification of the towns and analyze the structure of employment.

Data Sources:

The main data sources are the decennial Census Reports of India 1961-1991.

Methodology:

We followed the methodology used by Nagaraj (1985) for identifying 'stable' and 'unstable' patterns. Once the patterns are observed and the sources for these patterns understood we can identify the determinants for the observed patterns. For observing the patterns, two sets of indicators are used. They are (1) Indicators which capture the patterns at a point of time and; (2) those which capture the patterns over a period of time. The former includes:

(i) The degree of urbanization: It is the ratio of urban population to total population.

(ii) The town density: It is measured for a common geographical area, say 1000 sq.km, to compare the spread of towns across the state, regions and districts, over a period of time.

(iii) Concentration of urban population: This is used to find whether the population of the state is concentrated in only a few cities or spread all over regions and size classes of towns.

(iv) The average distance from a village to the nearest town: This tries to capture the spread of towns in a particular region. The shorter the distance from a village to the nearest town the better the spread that urbanization has attained.

(v) <u>Rural population per town</u>: This is measured for some definite geographical unit say a district to measure and compare the spread of urbanization between the regions/districts.

The second set of indicators includes the following:

(i) <u>The urban growth rates</u>: It shows the growth rates of urban population over a period of time.

(ii) <u>Urban rural growth differential</u>: It is the difference between the growth of the urban and rural population. It also shows the migration of people from rural to urban areas.

(iii) <u>The growth rate of six size classes of towns, urban agglomerations and isolated towns</u>: This is intended to find out whether growth rates of cities and towns differ according to size

(iv) <u>The components of urban growth</u>: Urban growth is decomposed into the following components:

Urban Growth = Natural increase of the population in urban areas + Net Migration into urban areas + Extension of the existing boundaries + Emergence of new towns - Declassification of the urban areas.

Growth of urban population due to natural increase and migration is termed as 'intensive component', extension of boundaries and emergence of new towns as 'Extensive Component' and declassification of towns as 'Declassification Component'. Thus

<u>Urban Growth = Intensive Component + Extensive Component -</u>
<u>Declassification Component.</u>

The intensive component is further decomposed into natural growth rate of population and net migration. For this we use the Inter Censal Cohort Comparison Method. We further decompose the resultant net migration into in-migration and out-migration.

Then the following patterns can be observed, in each region, using the following criteria.

In the case of isolated towns if the urban growth takes place due to the intensive component it is considered as stable pattern and if the extensive and declassification components are high and intensive component is low then it is considered as unstable pattern. If the urban growth takes place with a very high intensive component with low extensive and declassification components we can call it as stable pattern. The basic idea is that if in a region a large number of towns emerge with high intensification then that is an indicator of stability. On the other hand if a high urban growth takes place with low intensive component and a high extensive and declassification components it implies that the region is experiencing a very high movement of people indicating instability.

In the case of 'Urban Agglomerations' a different criterion is used to identify stability and instability. If an urban agglomeration, while growing rapidly promotes the development of towns in the surrounding region it is taken as an indicator of stability. On the other hand if an urban agglomeration while growing rapidly stunts

the emergence of towns in the extension then that is taken as an indicator of instability. That means such an urban agglomeration grows at the expense of the towns in the vicinity.

Chapterization Scheme:

Chapter two provides the broad patterns and processes of urbanization at the state, regional and sub-regional levels using the methodology given in chapter one. Chapter three goes into the sources of urban growth and in particular deals with demographic aspects of urbanization ie., growth of population, migration and their role in patterns of urbanization in Andhra Pradesh. Chapter four tries to provide the reasons for and the factors underlying the observed patterns with an emphasis on the economic aspects of urbanization. In this Chapter urbanization is viewed as an out come of the structural change in the economy and hence it provides the broad structural changes in the economy in output and employment. Also, it tries to relate the changes that had been occurring in rural and urban areas and the industrial and agricultural development with urbanization. In this chapter the main emphasis is on relating the urbanization patterns with the broad development process and resultant structural changes in the economy. Chapter five provides summary and conclusions of the study.

CHAPTER II

URBANISATION IN ANDHRA PRADESH

To analyze the patterns at the state, regional and sub-regional levels, the investigation is carried out at the level of administrative units. Lack of data and changes in boundaries of the districts make the comparison at much more disaggregate level a difficult task. Hence, here we have delineated regions based on the patterns of urbanisation and grouped the districts with homogenous characteristics under one region/sub-region. Another feature which has heavily influenced this exercise is the influence of Urban Agglomerations on the surrounding districts. There are three major Urban Agglomerations(UAs) in Andhra Pradesh. They are: Hyderabad, Vijayawada and Visakhapatnam. The surrounding districts of these three UAs were grouped into three single sub-regions. Thus, the major regions in the state are administrative regions i.e., Coastal Andhra[1], Rayalaseema[2], and Telangana[3]. The sub-regions are Northern Coastal Andhra[4], Central coastal Andhra[5],

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[1] Coastal Andhra includes the districts of Srikakulam, Vizianagaram, Visakhapatnam, East Godavari, West Godavari, Krishna, Guntur, Prakasam and Nellore.

[2] Rayalaseema includes the districts of Chittoor, Cuddapah, Anantapur and Kurnool.

[3] Telangana includes the districts of Mahbubnagar, Ranga Reddy, Hyderabad, Medak, Nizamabad, Adilabad, Karimnagar, Warangal, Khammam and Nalgonda.

[4] Northern Coastal Andhra includes the districts of Srikakulam, Vizianagaram and Visakhapatnam.

[5] Central Coastal Andhra includes the districts of East Godavari, West Godavari, Krishna and Guntur.

Southern Coastal Andhra[6], Rayalaseema, Telangana-I[7] and Telangana-II[8]. In the subsequent analysis we will make use of these regions and sub-regions. Generally the analysis at regional level is carried out by delineating regions using some indicators like agricultural development, industrial development, cropping pattern etc. and develop an index by combining them. Here we are doing the opposite. Here, we first delineate the regions based on the patterns of urbanisation ie., we group the districts with homogenous patterns into a region. This will help us understand how the urbanisation patterns differ with similar and different levels of development and the reasons for the same.

Urbanisation at the state level:

(The) Tables 2.1 and 2.2 gives trends in urbanisation in Andhra Pradesh[9]. From Tables 2.1 and 2.2 we can observe that urban population of the state has increased from 18.39 to 178.12 lakhs between 1901 and 1991. The degree of urbanisation increased continuously from 9.6 in 1901 to 26.8 in 1991 except in 1961 when it almost stagnated. This was mainly because of the introduction of a strict criteria to define a place as urban[10].

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[6] Southern Coastal Andhra includes the districts of Prakasam and Nellore.

[7] Telangana-I includes the districts of Mahbubnagar, Ranga Reddy, Hyderabad, Medak and Nalgonda.

[8] Telangana-II includes the districts of Nizamabad,Adilabad, Karimnagar, Warangal and Khammam.

[9]. While Calculating the number of urban settlements the constituent towns of urban agglomerations are treated as part of the urban agglomerations. This is so throughout the study.

[10]. Nearly 79 towns of 1951 Census were declassified in 1961 as rural resulting in decline in urban population and hence degree of urbanisation was remained stagnant between 1951-61.

Table 2.1: Trends in Urbanisation in Andhra Pradesh (1901-1991)

Years	Number of Towns	Urban Population (in lakhs)	Total Population (in lakhs)	Degree of Urbani-sation	Town Density	Rural Population Per Town (in lakhs)
1901	116	18.40	190.66	9.64	0.42	1.49
1911	133	21.65	214.47	10.09	0.48	1.45
1921	153	21.87	214.20	10.21	0.55	1.26
1931	176	26.94	242.04	11.13	0.64	1.22
1941	212	36.66	272.89	13.43	0.77	1.11
1951	276	54.20	311.15	17.42	1.00	0.93
1961	212	62.75	359.83	17.43	0.76	1.41
1971	207	84.03	435.03	19.31	0.74	1.70
1981	234	124.88	535.51	23.32	0.85	1.75
1991	213	178.13	663.55	26.85	0.77	2.28

Note:
1. Town density is the number of towns per thousand sq.Km.
For calculating the town density before 1971 the area figures of 1971 were used.

Sources:
Census of India(1981): General Population Tables, Part II-A, Series-2, Andhra Pradesh.

Census of India(1991): Provisional Population Totals: Rural-Urban Distribution, Paper-2 of 1991, Series-1, India.

Table 2.2: Trends in Urbanisation in Andhra Pradesh (1901-91)

Years	Urban Growth	Rural Growth	URGD	Population of Towns >20,000 (in lakhs)	Degree of Urba-nisation	Urban Growth for towns >20,000
1901	--	--	--	8.27	4.33	--
1911	17.68	11.94	5.74	9.99	4.66	20.77
1921	1.02	-0.26	1.28	9.86	4.6	-1.26
1931	23.17	11.84	11.33	12.83	5.3	30.10
1941	36.07	9.83	26.24	20.09	7.36	56.61
1951	47.86	8.77	39.09	33.62	10.8	67.29
1961	15.75	15.62	0.13	47.32	13.15	40.75
1971	33.92	18.15	15.77	69.65	16.01	47.20
1981	48.62	16.99	31.63	113.28	21.15	62.63
1991	42.64	18.22	24.42	171.03	25.78	50.99

Source: Same as Table 2.1.

When we take only the urban population in towns of the size above 20,000 to overcome the problem of declassification, the degree of urbanisation had increased continuously from 4.33 in 1901 to 25.78

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in 1991. This indicates that the cities and medium towns had increased at a faster rate accounting for an increasing proportion of the total population.

The number of towns remained constant during 1961-91 except with the exception of 1981. Thus, we can observe two trends in urbanisation in the state between 1901-91. Till 1951 urbanisation increased with an increase in the number of towns and after 1961 the number remained stagnant at around 212-213. The same pattern can be observed with other indicators ie., the town density and rural population per town.

The town density i.e., number of towns per thousand square kilometres, had increased continuously from 0.42 in 1901 to 1.00 in 1951 and thereafter it had stagnated between 0.7 and 0.8. The rural population served by a town had declined continuously from 1.4 lakh per town in 1901 to 0.93 lakhs per town in 1951 and thereafter it increased continuously from 1.4 lakh in 1961 to 2.27 lakh in 1991. We can infer from these indicators that till 1951 the degree of urbanisation, number of towns, rural population served by a town, the town density etc., had continuously increased in Andhra Pradesh. But from 1961 onwards, except in 1981, the number of towns had stagnated, and so were town density and rural population per town.

The urban growth rate increased in all the decades except 1910s, 1950s and 1980s. The growth rate during 1971-81 was significantly high. The urban rural growth difference also shows the same trend. Though, we can attribute the higher urban growth rate during 1971-

81 to the increase in number of towns, the fact that URGD was also high indicates that migration had also played an important role. The urban growth rate and URGD although declined during 1981-91 were significantly high indicating an important role played by migration. From the above analysis we can conclude that the urban growth rate in the state had picked up during Seventies and Eighties. Hence, we can conclude that from the 70's urbanisation in the state has increased at an increasing rate with stagnant number of towns accompanied by high urban growth rates in Andhra Pradesh.

Concentration of urban population·

When the number of towns was stagnant and the degree of urbanisation accompanied by high urban growth rate continuously on the rise, it is interesting to observe as to what happened to the concentration of population in towns. To analyze this we used two indicators viz., (i) Primacy and (ii) concentration of population.
(a) Primacy:

(i) concentration of Urban population in the largest urban unit in the state; and

(ii) the proportion of the population of second largest urban unit to the first largest urban unit and

(b) concentration of population:

   (i) in cities, medium and small towns; and

   (ii) in all size classes of towns;

   (ii) in isolated towns and urban agglomerations[11]

Table 2.3: Percentage of Towns and Population in total no
of towns and Population of Cities, Medium and Small Towns.

Year	Cities No	Cities Popula	Medium Towns No	Medium Towns Popula	Small Towns No	Small Towns Popula	Total No	Total Popula	Primacy @	Primacy #
1901	1	26	9	22	90	53	100	100	26	9.3
1911	1	23	10	23	89	54	100	100	23	9.3
1921	1	19	10	27	90	55	100	100	19	7.1
1931	1	17	11	30	89	52	100	100	17	7.1
1941	0*	20	15	35	85	45	100	100	20	7.9
1951	2	33	16	29	82	38	100	100	21	7.0
1961	5	43	28	32	67	25	100	100	20	5.3
1971	6	48	37	35	56	17	100	100	21	4.9
1981	9	54	50	37	41	9	100	100	20	4.2
1991	15	67	59	29	26	4	100	100	24	4.1

Notes:
@. the ratio of population of the largest urban unit to the urban
population of the state.
#. the ratio of population of the largest urban unit to the second
largest urban unit in the state.
*. The percentage of one city out of total 212 towns was 0.5. When
we rounded of the figure to zero decimal it had come to zero.
1. Cities are places having population of one lakh and above.
Medium Towns include the towns with population ranging between
20,000 to 99,999. and Small Towns include the towns with population
below 20,000.

Source: Same as Table 2.1.

From Table 2.3 we can observe that concentration of urban

population in the largest urban unit (i.e., Hyderabad) declined

from 26 per cent in 1901 till 1931 (that is to 17 %) and then

stagnated between 1941 and 1981 (20-21%) and finally increased a

little in 1991 (to 24%). That is, in 1991 nearly one fourth of

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[11]. The concept of urban agglomeration was introduced in
the 1971 census. So this indicator was given only from 1971
onwards.

urban population of the state was in Hyderabad Urban Agglomeration.

The urban primacy had declined continuously from 9.32 in 1901 to

4.07 in 1991 except in 1941 when it was higher than the previous

decade. This implies that apart from the largest urban centre, a

few other towns had increased their shares in the urban population

of the state.

The concentration of population in cities had increased from 25.6

Per Cent in 1901 to 67 Per Cent in 1991. Medium towns which formed

9.48 per cent of total number of towns accounted for 21 per cent of

population in 1901. Medium towns had increased their share both in

number of towns and population till 1981. However, in 1991 though

their percentage share of total number of towns increased further

there was a sharp decline in percentage of total urban population.

Small towns which accounted for 52.71 Per Cent of population in

1901 had only 3.98 Per Cent in 1991. The share of small towns in

total number of towns had also declined from 89.66 Per Cent in 1901

to 26 Per Cent in 1991.

Table 2.4: Concentration of Population in UAs and Isolated Towns.

Years	Urban Agglomerations		Isolated Towns	
	Number of towns	Population (lakhs)	Number of towns	Population (lakhs)
1971	4 (1.9)	26.9 (32.1)	203 (98.5)	57.1 (67.9)
1981	4 (1.7)	39.6 (31.7)	230 (98.3)	85.3 (68.3)
1991	15 (7.1)	87.9 (49.4)	198 (92.9)	85.4 (50.6)

Note: Figures in the brackets show their respective percentages
in total number of towns and Population.

Source: Same as Table 2.1

From Table 2.4 we can observe that Urban Agglomerations which

account for 1.9 percent in 1971 had 32 percent of population. They

increased their share to 7.1 percent in number of towns and nearly

50 percent in total urban population in 1991. The isolated towns which account for more than 90 per cent of total number of towns in 1971 with 70 Percent of total urban population had shown a decline in the percent of urban population from 68 percent in 1971 to 50 percent in 1991 though the share of towns remained around 90 Per cent. The decline in share of urban population was very high in 1991 for isolated towns. This was because in 1991 nearly 11 new UAs were recognised which were isolated towns in 1981.

Table 2.5: Concentration of Towns and Population in Towns of six Size Classes

	Class-I		Class-II		Class-III		Class-IV		Class-V		Class-VI		Class I-VI	
Year	Towns	Pop	Towns	Pop	Towns	Pop	Towns	pop	Towns	pop	towns	Pop	Towns	pop
1901	0.9	25.6	0.0	0.0	9.5	21.6	37.9	33.0	51.7	19.7	0.0	0.0	100	100
1911	0.8	23.2	0.8	2.5	9.0	20.4	33.8	29.2	52.6	24.0	3.0	0.6	100	100
1921	0.7	18.5	1.3	4.9	8.5	21.6	30.1	27.3	49.7	25.0	9.8	2.6	100	100
1931	0.6	17.3	4.5	18.1	6.3	12.2	32.4	28.8	44.3	20.7	11.9	2.9	100	100
1941	0.5	20.2	4.7	19.5	9.9	15.2	25.9	20.8	57.1	24.1	1.9	0.3	100	100
1951	2.2	32.5	3.6	12.7	12.3	16.7	29.7	20.3	41.3	15.4	11.2	2.3	100	100
1961	5.2	43.2	3.8	8.5	24.1	23.8	34.4	15.8	33.0	8.7	0.5	0.0	100	100
1971	6.3	48.4	8.3	13.3	29.1	21.2	38.3	13.2	18.0	3.7	1.9	0.2	100	100
1981	8.5	53.8	12.8	16.2	37.2	20.8	30.3	7.4	12.0	1.7	1.7	0.1	100	100
1991	15.0	66.9	16.0	12.6	42.7	16.5	18.3	3.3	6.6	0.6	1.4	0.0	100	100

Note:
The size-classes are based on the following classification.

        Class   Population
        Class-I   ---100,000 and above
        Class-II --- 50,000 to 99,999
        Class-III--- 20,000 to 49,999
        Class-IV --- 10,000 to 19,999
        Class-V   --- 5,000 to 9,999
        Class-VI --- Less than 5,000

Source: Same as Table 2.1.

From Table 2.5 we can observe that Class-I Towns had increased their share in the number of towns and Population dramatically after 1951. Class-II towns had increased their shares both in number and population from 1931 census onwards. It was also observed that a large number of Class-III towns had emerged in

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Andhra Pradesh during 1931-51. Though the phenomenon of emergence of towns is quite significant for towns of all size classes, the increase in the percentage of population was very high in Class-II Towns. But from 1961 onwards though the class III towns increased in number their share in the total urban population had almost stagnated with the exception of only few years. From 1961 onwards Class IV ,V & VI towns had declined in their shares in number of towns and population. However the decline was sharper in class V towns, compared to class-IV though both had experienced a decline. When these lower size class towns are experiencing decline in number of towns and population it was Class-I and II that were increasing their share in number of towns and Population. However, this trend continued till 1981 only. In 1991 it was Class-I towns that had increased their share in both number of towns and Population.

From the above analysis we can infer that though there was no increase in the concentration of population in a single city, there was an increasing concentration of population and number of towns in cities and medium towns. This could be because of migration of people from lower size class of towns to higher size class to towns and rural to urban migration leading to upward mobility of towns and hence concentration of towns and hence population in cities and medium towns. This phenomenon was strengthened by non-emergence of a large number of new towns except in 1981.

Components of Urban Growth:

Table 2.6: Components of Urban Growth in Andhra Pradesh (1961-1991)

Urban Units		1961-71	1971-81	1981-91
Urban Agglomerations	R	47.61	47.07	122.13
	Re	4.61	1.46	55.97
	Ri	43.01	45.61	66.10
	Rd	0.00	0.00	0.00
Isolated Towns:	R	28.30	49.35	0.2
	Re	4.61	1.46	1.69
	Ri	27.85	48.10	0.22
	Rd	6.79	0.21	1.71
Total Urban Units:	R	33.92	48.63	43.24
	Re	6.47	4.11	8.28
	Ri	32.26	44.65	36.13
	Rd	4.81	0.14	1.17

Note:
1. R, Re, Ri and Rd are the urban growth, extensive Component, Intensive component and Declassification components respectively.
2. In 1991 11 new Urban Agglomerations came into existence.

Source: Same as Table 2.1.

From Table 2.6 we can observe that, when urban growth was decomposed into the intensive, extensive and declassification components it was observed that the extensive component i.e., the emergence of new towns and the declassification component i.e., the declassification of existing towns were high during sixties. During seventies and eighties though the extensive component had increased the declassification component had declined. During seventies and eighties both intensive and extensive components had increased as compared to sixties. However, during seventies much of the extensive component had taken place with the emergence of new isolated towns. During eighties much of the extensive components had taken place with the emergence of new towns around the urban agglomerations ie extension of the existing urban agglomeration and also new urban agglomerations. The high intensive component during seventies and eighties indicate an increase in the migration to

urban areas. In the case of urban agglomerations intensive component had increased since sixties. This gives us an impression that the UAs had played an important role in the emergence of new towns and the overall urban growth. It will be of interest to see which of the UAs had promoted the emergence of new towns around them. For this we will do the same component analysis for each urban agglomeration. Table 2.7 Provides information on the components of growth for each urban agglomeration.

Table 2.7: Components of Growth of Urban Agglomerations in Andhra Pradesh.

Urban Agglomerations	Name of the District	1961-71			1971-81			1981-91		
		R	Ri	Re	R	Ri	Re	R	Ri	Re
Hyderabad	Hyd,Rng,Mdk	43.8	41.8	2.0	41.7	39.5	2.2	68.1	51.1	17.0
Visakhapatnam	Visakhapatnam	72.1	68.1	4.0	66.1	66.1	0	74.3	39.1	35.2
Vijayawada	Krishna,Guntu	47.0	35.4	11.7	57.6	57.6	0	55.7	47.7	8.0
Warangal	Warangal	32.9	32.9	0.0	61.5	61.5	0	39.3	37.3	2.0
Rajahmundry	East Godavari	45.2	27.6	17.6	42.1	42.1	0	50.5	50.5	0.0
Kakinada	East Godavari	33.6	33.6	0.0	37.9	37.9	0	44.6	44.6	0.0
Kurnool	Kurnool	35.6	35.6	0.0	50.9	50.9	0	33.2	14.5	18.6
Cuddapah	Cuddapah	35.0	35.0	0.0	55.8	55.8	0	109.0	36.3	72.7
Tirupathi	Chittoor	83.7	83.7	0.0	75.1	75.1	0	64.0	64.0	0.0
Vijayanagaram	Vijayanagaram	12.8	12.8	0.0	32.6	32.6	0	53.4	53.4	0.0
Khammam	Khammam	58.6	58.6	0.0	73.5	73.5	0	50.5	50.5	0.0
Chirala	Prakasam	20.0	20.0	0.0	32.2	32.2	0	98.0	98.0	0.0
Ongole	Prakasam	48.9	48.9	0.0	60.0	60.0	0	50.2	17.9	32.3
Kothagudem	Khammam	8.3	8.3	0.0	25.6	25.6	0	7.6	-8.4	16.0
Jammalamadugu	Cuddapah	20.4	20.4	0.0	32.8	32.8	0	72.1	50.4	21.7

Note:

1. R, Re, and Ri are the urban growth, extensive Component and Intensive components respectively of urban agglomerations.

2. Till 1981 Census there were only 4 UAs. And 11 new UAs came up in the 1991 census. For Calculating the growth rates of the population of new UAs their population in previous Census are taken even though they were not UAs at that time.

Source: Same as Table 2.1.

During the decade 1961-71 all the four UAs i.e., Hyderabad, Visakhapatnam, Vijayawada and Rajahmundry had extensive Component and it was high in the latter two. During the next decade 1971-81,

only Hyderabad Urban Agglomeration had an extensive Component. But during the decade 1981-91 Hyderabad, Vijayawada, Visakhapatnam, Kurnool, Cuddapah, Ongole, Kothagudem and Jammalamadugu had extensive Components. It was high in the case of Cuddapah, Visakhapatnam,and Ongole. Though the old Urban Agglomerations had high extensive component the new UAs had a high intensive component as compared to the old ones.

Growth Rates of Towns of Various Size Classes:

Table 2.8 Provides the growth rates of the towns using two methods of continuous approach to calculate the growth rate of the population of six size of towns.

Table 2.8 Growth Rates of Towns of six size classes in Andhra Pradesh

Size Class	For Towns of different size Class towns in 1961			Towns by their size Class population common in @		
	1961-71	1971-81	1981-91	1961-71	1971-81	1981-91
I	41.98	46.89	56.20	41.97	46.24	49.12
II	18.93	37.00	30.01	18.93	44.58	39.78
III	34.46	44.99	34.96	34.45	45.62	32.46
IV	28.97	42.84	33.64	28.87	45.06	31.65
V	34.63	42.97	37.21	34.03	34.86	16.96
VI	---	---	---	---	18.55	-3.99
I-VI	35.82	45.81	45.81	35.63	45.26	42.90

Note:
@ Growth rate are calculated for the Population of UAs and Towns common in 1961, 1971 by their size class in 1961, and for the 1971 and 1981 by their size class in 1971 and for 1981 and 1991 by their size class in 1981.

Source: Same as Table 2.1.

From the continuous method it appears that the growth rates of Class-I cities are higher as compared to other size class towns and also over the decades it showed an increasing trend. Whereas the

other size class of towns appears to be increasing more or less at
the same rate. But over the decade they had a high growth rate in
1971-81 compared to the previous decade, but experienced a low
growth rate in the next decade i.e., 1981-91. However, the growth
rate during 1981-91 though lower compared to the decade of 1971-81,
was still higher as compared to 1961-71. Thus, we can conclude that
towns of all size classes had high growth rates during seventies
and eighties as compared to sixties.

When we use the other method all the classes exhibited the same
growth rates during the decade 1971-81. But during the decade
1981-91 the higher size class of towns experienced a higher growth
rate and the lower size class of towns had a lower growth rate.
Also as compared to the decade 1971-81, all the six size classes of
towns, except class-I towns, had lower growth rates during 1981-91.

From this we can conclude that Class-I towns showed higher growth
rate during 1971-81 and 1981-91. During the successive decades from
sixties they showed an increase in their growth rate. Interestingly
from both the methods we can observe a slow growth rate of class-II
towns as compared to all other classes of towns. All the other size
class towns also had comparatively high growth rates during
Seventies and Eighties. This implies that the higher urban growth
rate and rapid urbanisation in Andhra Pradesh during Seventies and
Eighties are due to a higher growth rates of towns of all Size
classes.

Now we can summarise the broad Patterns and processes of
Urbanisation in Andhra Pradesh. Growth of urbanisation in Andhra

Pradesh became noticeable after 1930's. It had increased at rapid rates during seventies and eighties as compared to earlier decades. During a period of 60 years we can observe two broad trends. Firstly, till 1951 urbanisation in Andhra Pradesh had proceeded with increasing number of new towns accompanied by increasing migration as reflected in high URGD. Secondly, from 1961 onwards, urbanisation in Andhra Pradesh had increased at rapid rates, with stagnant number of new towns and hence, only through migration. During the second phase, on which we will concentrate in the subsequent analysis, a number of patterns can be observed in the state. They are:

1. Except in 1981 the number of towns had remained stagnant around 212 to 213 between 1961-1991.

2. Rapid growth rates of urban population in Andhra Pradesh during seventies and eighties. This rapid growth rates are observed in towns of all size classes.

3. Even though the growth rates of towns of all size classes are high, class-I towns had higher growth rates during 1971-91. The growth rates of class-II towns were lower as compared to those of the other size class of towns.

4. The URGD was very high during 1961-91 implying thereby an increasing role of migration in high urban growth and urbanisation in Andhra Pradesh.

5. Concentration of population in Cities and Urban Agglomerations were increasing over time. In 1991 they had around 70 and 50 percent of urban populations respectively.

PATTERNS OF URBANISATION AT THE REGIONAL AND SUB-REGIONAL LEVELS:

Earlier we observed the patterns and processes of urbanisation in Andhra Pradesh. Here we will look for the patterns at regional and sub-regional levels and analyze how they differ with the patterns observed at state level. Tables 2.9 to 2.11 (Given in the Annexure-1) gives information regarding the patterns of urbanisation at regional and sub-regional levels in the state.

COASTAL ANDHRA:

In Coastal Andhra the number of towns had increased from 90 in 1961 to 106 in 1981. However, in 1991 the number of towns had declined to 98. Though the number of towns declined in 1991 as compared to 1981, still the number of towns were higher as compared to the 1961. The degree of urbanisation had increased continuously from 16.9 to 25.4 between 1961 to 1991. However the degree of urbanisation was slightly lower than the state's level of urbanisation throughout the period.

The urban growth rate of the region had increased till seventies. It had declined during eighties. The urban growth rate and URGD in Coastal Andhra were higher as compared to state during 1961-71. However, during Seventies and Eighties the urban growth rate and

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URGD were lower in Coastal Andhra as compared to the state. From this we can infer that the rapid urbanisation in the state during Seventies and Eighties was not contributed by rapid urbanisation in Coastal Andhra. Urbanisation in Coastal Andhra was not rapid during seventies. As compared to state, migration as shown by low URGD, had played a relatively lower role in Coastal Andhra. The fact that the number of town had increased between 1961-91 and the low rural urban migration as reflected in the low URGD enable us to infer that the new towns had come up mainly through changes in the structure of workforce from agriculture to non-agriculture. This seems to be neither the result of push from rural areas nor pull from urban areas. But the rural areas were themselves experiencing transformation and hence were increasingly becoming non-agriculture in their workforce structure leading to emergence of new towns in the region. Now let us look at the spatial distribution of urban population and the growth rates of towns in six size Classes.

When compared to state, urbanisation in Coastal Andhra is better dispersed. The town density was higher than the state's average. The rural population per town was lower in Coastal Andhra as compared to state. This could be because the increase in number of towns was much higher as compared to the increase in rural population. From this we can infer that the degree of urbanisation was better spread across space. However, within the urban areas what had happened?. Did it led to an equal spread in towns of six size classes?. In eighties the urban population was increasingly getting concentrated in cities. This had happened mainly through upward mobility of towns which was perhaps facilitated by a high urban to urban migration of people from other regions to urban

areas of Coastal Andhra. Now let us take a look at the growth rates of cities and towns. From Table 2.11 we can observe that the growth rates of Class-I cities had been higher as compared to those of towns of other classes. Another interesting point was that during 1981-91 the difference in growth rates of Class-I town and the rest was very high. From Method-2, which calculates growth rates based on the size class in 1961, we can observe that the difference was very high. This implies that the cities of Coastal Andhra were increasing at rapid rates as compared to towns of lower size class. This could be because of high urban to urban migration from small and medium towns to cities like Vijayawada, Visakhapatnam, Guntur etc.

When the new towns were coming up the urban growth will increase and rural growth will decline showing an increasing URGD. In Coastal Andhra the two rates ie urban growth and URGD were lower. The extensive component had a significant role (6 percent of urban growth). The declassification component had a very negligible role in urban growth and it had been declining from Sixties. The intensive component showed the same trend as urban growth since it had not been effected by declassification and new towns. This should lead us to infer that urbanisation was stable in Coastal Andhra.

However, the above patterns are not common among the three sub-regions of Coastal Andhra i.e., North, Central and Southern Coastal Andhra. There are differences between sub-regions and also between the region and the three sub-regions as can be seen from the following analysis.

Northern Coastal Andhra:

In Northern coastal Andhra the number of towns had increased from 22 to 30 between 1961 and 1971. They remained at 30 in 1981 but declined to 28 by 1991. That is between 1971-91 the number of towns either stagnated or declined in the region. The degree of urbanisation although remained at a level lower than that of the state was increasing at a rapid rate. Interestingly the urban growth rate was very high and was increasing between 1961 to 1991. Also URGD was very high and was increasing over the decades. This implies that in this region rural-urban migration had played a very important role in urbanisation and urban growth. The spatial spread of urbanisation seems to have been increasingly becoming even as can be seen from the increase in town density during sixties and stagnancy thereafter. However, the dramatic fall in degree of urbanisation when the lowest urban units population was excluded indicates that the regions urban population was concentrated in a single city i.e., Visakhapatnam. Though the towns were concentrated in medium and small sizes the urban population was increasingly concentrated in cities (34% in 1961 to 63% in 1991). This reflects the dominance of single city in the region. This is reflected in high growth rate of cities compared to towns of any other size classes. Towns of lower size classes had very low growth rates compared to cities. Does it imply that the city was hindering the growth of these small towns in the region?.

From Table 2.11 we can observe that the extensive component played a very important role during sixties and eighties. Nearly one third of urban growth can be attributed to extensive component in

this region during sixties and eighties. The declassification component was very low compared to extensive and intensive components. The intensive component which explains two thirds of urban growth was high during seventies and eighties as compared to sixties in the region. These figures indicate that unstable pattern had declined in the region. However from table 2.7 we can observe that the role of extensive component was low for visakhapatnam city during sixties and eighties as compared to its intensive component and urban growth. But during Eighties both the intensive and extensive components had equal shares (39.1 and 35.1) in the total growth of Visakhapatnam Urban Agglomeration. Also the intensive component had been declining since Sixties. The decline was significant during eighties. During the eighties the difference between the growth rates of class-I cities and the rest of towns was very high. Also the number of towns declined in 1991 as compared to 1981. Thus the low intensive component, high growth rate of class-I cities and very low growth rates of towns other than cities and high extensive component around Visakhapatnam Urban Agglomeration implies that the VAU had lost its dynamism and a process of Extension within Urban Agglomeration has taken place. It is no longer playing an important role in the emergence and development of small and medium towns in the region. And the urbanisation of the entire region was dominated by Visakhapatnam.

Central Coastal Andhra:

The Central Coastal Andhra region has the largest number of towns compared to any other sub-region in Andhra Pradesh. However, the number of towns remained stagnant at 52 except in 1981 when it had

increased (from 52 in 1971 to 57 in 1981). The degree of urbanisation was higher in the sub-region as compared to that of the state. The rate of increase of degree of urbanisation was low. However, the urban growth and URGD was low in this sub-region as compared to state and Coastal Andhra as a whole. Interestingly the URGD which reflects rural-urban migration was declining. In 1991 it had declined to such a low level that hardly any rural-urban migration existed in the region. The stagnancy in number of towns with low urban growth and a declining rural-urban migration seems to be contradictory phenomenon in a rich deltaic region. The town density was highest in the sub-region as compared to any other sub-region in the state. The rural population per town was lowest in the sub-region. This indicates that the region had a better spread of towns across the space. But how was the urban population concentrated in towns?. The degree of urbanisation with largest urban units population excluded shows no dramatic decline. But the difference in degree of urbanisation as when we exclude the population of largest urban unit compared to one when they were included, was on the rise. This was particularly so in 1981 and 1991. This implies that the largest urban unit in the region i.e., Vijayawada had been increasing at a rapid rate compared to other cities and towns. The number of towns and urban population were concentrated in cities and medium towns in the region. But in 1991 only cities and Class-II towns had increased their share in number of towns and urban population. But the concentration of urban population was low as compared to other regions and sub-regions. From the growth rate of towns we notice that during sixties and seventies all size class towns had increased at the same growth rates. However, during eighties there was a clear cut difference in

the growth rate of Class-I cities and the rest. However, the extensive and intensive components, though of same magnitude were very low compared to urban growth and intensive component. This implies that intensive component was very high in the region. All these features of urbanisation in the region indicate a stable pattern of urbanisation with high degree of urbanisation, a high spatial spread of towns and population in towns. However, the rate of urbanisation has slackened.

Southern Coastal Andhra:

Between 1961-91 the number of towns in Southern Coastal Andhra had increased. The degree of urbanisation was low in this region and the the urban growth was high (108.53) during 1961-71. This was mainly because one of the districts in the region i.e., Prakasam, was formed during the period for whose formation some regions of Guntur district in Central coastal Andhra and Kurnool of Rayalaseema region were added leading to a sudden increase in urban population and hence urban growth. However, during seventies and eighties, though the urban growth was high, it was declining. Interestingly the region had higher URGD indicating a high Rural-Urban migration. However, during the Eighties URGD had declined. Thus this region seems to had undergone some changes in rural areas during Sixties and Seventies when the number of towns had increased, urban growth and URGD was high. Though the number of towns increased, the town density was low in the region compared to any other region in Andhra Pradesh. This region also had a higher concentration of population in a single big city i.e Nellore. This is reflected in an increasingly lower degree of urbanisation when

the largest urban unit's population was excluded. In this region
the number of towns were in Medium and small towns. However, urban
population was concentrated in cities and medium towns. Till 1981
only 30 percent of population in the region were in cities. The
remaining towns had 70% of urban population. Though this region
had higher growth rate in cities, the other class towns had a
comparable growth rate. Thus the lower concentration of population
in cities along with an even a higher growth rate of six size
classes indicate that the high urban growth in the region was an
outcome of the high growth rate of all size class of towns.

In this region not only the urban growth was high, the intensive
component was also high. The extensive component was high during
seventies and had declined. The declassification component was low.
Thus the high urban growth had come through an even growth of all
size class of towns and a high rural to urban migration.

From the above analysis we can observe that the three regions had
differences in the patterns and process of urbanisation from that
of Coastal Andhra and also that of the state. For example the
Coastal Andhra had a lower degree of urbanisation and a lower
urban growth. The Central Coastal Andhra had a higher degree of
urbanisation, spatial spread and a low concentration of population
in big cities. However, its urban growth and rate of urbanisation
had slackened. In North Coastal Andhra we observe that the region
had a low degree of urbanisation, the spatial spread of towns was
even but population was concentrated in a single largest city. The
region had a high urban growth and URGD, and an rapidly increasing
urbanisation. The Southern Coastal Andhra had a low degree of

urbanisation, low spatial spread of towns, lower concentration of population, but had a higher urban growth, high URGD and an even growth of towns of six size class. Thus the three regions differ significantly from that of state and Coastal Andhra in terms of patterns of urbanisation.

Telangana:

In the Telangana region the number of towns had declined from 73 in 1961 to 70 in 1991. Though the decline in the number of towns seems to be small there were wide fluctuations. During sixties number of towns decreased by 6 during seventies the number of towns increased by 12 and during Eighties again the number of towns decreased by 9. However, the degree of urbanisation, which was higher than that of the state, had continuously increased from 19.3 to 30.2 in 1991. Contrary to state's, urban growth and URGD in Telangana had continuously increased. It had not shown any signs of decrease. The rise in URGD implies that rural-urban migration had played a significant role in high urban growth and urbanisation in the region. These two features viz., fluctuations in the number of towns and a steadily increasing urban growth and URGD seem to be mutually contradictory. That is when the number of towns was fluctuating, urban growth and URGD do not show any fluctuations but were continuously on the rise. This could be because of concentration of population in a single city. This can be observed from a low town density and also the decline in the degree of urbanisation when the population of the largest urban unit was excluded. This index had been declining since 1961. In 1991 nearly 25 per cent of total population is in one single city in the region. That is heavy concentration of population in a single city.

Towns in number were getting concentrated in the medium and small size classes. However, urban population was concentrated in cities. This concentration had been increasing from 1961 to 1991. Though the concentration of population had increased in medium towns till 1981, in 1991 they also experienced a decline in the percentage of urban population. Thus this region seems to be dominated by a single city. If we look at the growth rate of towns of six size classes, we can observe that during 1971-81 decade, like all other regions and state, the Telangana region also had a high and almost same growth rates of towns in all size classes. However, during 1961-71 and 1981-91 the difference in growth rates between class-I towns and the rest was high. That is, during Sixties and Eighties the towns of lower size classes have lower growth rates.

If we look at the components of urban growth we can find that the intensive component was at a high level. Also the extensive component had been increasing and declassification component had been declining. But we find fluctuations in number of towns. Why is it so?. New towns which emerged during seventies became parts of Hyderabad Urban Agglomeration due to its expansion. Also, during eighties new towns emerged only around Hyderabad. Hence the expansion of Hyderabad Urban Agglomeration had its influence on the fluctuations in the number of towns in Telangana region. However, there could be differences at sub-regional levels as can be observed from the following analysis.

Telangana-I:

Telangana-I had the same patterns as the total Telangana region. The decline in number of towns was fluctuating. The number of towns

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declined from 36 in 1961 to 30 in 1991. The degree of urbanisation was highest in the region. Its 1961 degree of urbanisation was equivalent to Andhra Pradesh urbanisation of 1991. This high and rapidly increasing urbanisation was facilitated by high urban growth and URGD. Interestingly, like Telangana, its urban growth and URGD had increased from sixties to Eighties continuously. This implies that rural-urban migration was continuously playing an increasing role in high urbanisation in the region. However, this high urbanisation was accompanied by low towns density and geographical spread of urbanisation. The entire urban population was concentrated in one single city i.e., Hyderabad Urban Agglomeration. The degree of urbanisation falls dramatically from 38.6 to 3.2 if we exclude the Hyderabad's population from total urban population. Nearly 80 per cent of total urban population of the region was concentrated in Hyderabad Urban Agglomeration alone.

Towns in number were getting concentrated in Class-III, IV and V. However, concentration of population was solely in cities. In 1991 nearly 83 percent of the urban population was in cities. There was an upward movement of towns from lower size class to higher size classes. If we look at the growth rates of towns of all size classes we can observe that class-I towns had higher growth rates as compared to the rest of size classes during sixties and eighties. This was very sharp in eighties when the class-I towns had doubled the growth rates of towns as compared to the rest of size classes. However, during Seventies the growth rate of lower size classes was higher than the class-I towns.

In the whole region sub-region the extensive component had been playing an increasing role and the declassification component was on the decline. Both the declassification and extensive components were high during sixties. However, during seventies and eighties the declassification component had declined. Though the extensive component during eighties was mainly because of the expansion of Hyderabad Urban Agglomeration. Thus this sub-region had a high urbanisation, higher urban growth with spatial concentration of towns and population. Primacy was very high in this region.

Telangana-II:

This region had 37 towns in 1961. By 1991 the number of towns had increased to 40. Though a very slow increase in number of towns, but this region seems to have started urbanising at faster rates. It had very low degree of urbanisation in 1961 (12.2%) and it had increased though at a lower rate to 20.6 per cent in 1991. The urban growth and URGD had increased during Seventies (61.7% and 41.81%) as compared to sixties (38.8 and 16.0 %). Though both urban growth and URGD had declined during eighties as compared to seventies both were higher as compared to sixties. This region had a low town density(lower than the states average) and an increasing number of rural population per town. The urban population was concentrated in a single city as shown by the dramatic decline in degree of urbanisation when the largest urban units population (i.e., warangal) was excluded. This implies that this region had low geographical spread of urbanisation.

Most of the towns were concentrated in medium and small towns of the region. This region also experienced an upward mobility of towns because of high rural to urban migration (high URGD). This led to concentration of towns and population in cities and medium towns. Another interesting aspect was that three new urban agglomerations emerged in the region during the eighties. Also the number of cities increased from 2 in 1981 to 6 in 1991. This indicates that urbanisation had started rising at a faster rate. The increase in number of towns, especially the increase in no of cities and emergence of three new urban agglomerations and relatively low concentration of population in the cities in Telangana-II indicated that urbanisation has picked up in the region.

Another interesting aspect of urbanisation in the region was that the growth rates of towns in the region were relatively higher in towns of small size class compared to higher size class especially the class-I towns. This was observed in all the three decades under study i.e., from sixties to eighties.

This region also had high extensive and declassification component during sixties indicating an unstable pattern of urbanisation in the region. However during seventies and eighties this pattern had disappeared. But the extensive and intensive components were higher during Seventies and eighties as compared to sixties indicating a high rural to urban migration. Thus this region had turned from unstable pattern of urbanisation to a stable pattern with a faster rate of urbanisation.

Thus from the above analysis we can observe that Telangana-I and II had different patterns of urbanisation. Telangana-II had low degree of urbanisation, low town density and had low concentration of population in cities. However, this region had been urbanising at faster rate. The high urban growth, high URGD, high emergence of four new Class-I cities etc. indicate that this region had been urbanising at a faster rate. However, Telangana-I had a high degree of Urbanisation and a high urban growth. But it had low towns density and a high spatial concentration of population especially in Hyderabad Urban Agglomeration. It is around the urban Hyderabad Urban Agglomeration that the emergence of towns had been taking place. Thus, though Telangana-I had a similar pattern of urbanisation as that of Telangana region, the other region had an altogether different patterns.

Rayalaseema:

In Rayalaseema the number of towns had declined from 49 in 1961 to 45 in 1991. There were fluctuation in number of towns between 1961-91. The degree of urbanisation was lower than the state and also as compared to the other two regions i.e., Coastal Andhra and Telangana. The urban growth during 1961-71 was lowest among all the three regions and sub-regions in Andhra Pradesh. This was mainly because during the period some parts of Kurnool district were transferred to Prakasam district of South Coastal Andhra. During Seventies and Eighties urban growth and Urban Rural Growth Difference was high. But urban growth and URGD was lower during 1981-91 as compared to previous decade. The town density was low in the region compared to state. Another interesting aspect of

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urbanisation in the region was that urbanisation was not concentrated in a single city as reflected in the index which measured the degree of urbanisation by excluding the largest urban unit's population. This implies that the urban population was not concentrated in a single city.

The number of towns and urban population was concentrated in medium and small towns and there was an upward mobility of towns and hence urban population. Till 1991 urban population was concentrated in a small and medium towns. In 1991 urban population was concentrated in cities and medium towns. From 1961 onwards the number of cities in the region seems to have increased from one in 1961 to ten in 1991.

In the Rayalaseema region the growth rates of towns of all Size size classes were almost same indicating that all the towns were growing at the same rate. It had a high extensive and declassification components during 60s. The declassification component was high as compared to extensive component. This was an indicator of unstable pattern of urbanisation during Sixties. However, the declassification component had declined during seventies and eighties and extensive and intensive components had increased during Seventies and Eighties as compared to sixties. This is a clear shift from the pattern observed from Sixties i.e., Unstable pattern.

Patterns of Urbanisation at District Level:
In this section we try to highlight the patterns that one can observe at the district level. There were wide variations in

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urbanisation patterns at the district level. There were extreme cases in a single patten of urbanisation. However, the following patterns can be observed from Tabes 2.12 to 2.18.

(a) Few districts with the presence of a large number of urban population dominate the urban scene of Andhra Pradesh. These include Hyderabad and Ranga Reddy, Visakhapatnam and Krishna. these four districts had nearly 40 to 50 percent of total urban population in Andhra Pradesh. They had the biggest urban agglomeration in Andhra Pradesh i.e., Hyderabad in Hyderabad district, Visakhapatnam in Visakhapatnam district and Vijayawada in Krishna district. These three urban agglomerations dominated the urban scene not only in their respective districts but the region and even the entire state as in the case of Hyderabad. These three urban agglomerations also dominate the entire urban scene of Andhra Pradesh.

(b) There were three broad groups of districts in the Andhra Pradesh.

The districts in Group-I were urbanising at a rapid rate. They had low degree of urbanisation during sixties but were urbanising at a faster rate during Seventies and Eighties. These include the districts of Prakasam and Nellore in souther Coastal Andhra, Chittoor, Cuddapah and Anantapur in Rayalaseema, Nizamabad, Adilabad, Karimnagar and Khammam in Telangana-II region.

Districts in the second group (Group-II) were urbanising at a slower rate. They had a high degree of urbanisation in sixties but

were urbanising at a slower rate especially during seventies and eighties as compared the Sixties and also as compared to the previous group. These include the districts of East Godavari, West Godavari, Guntur in Central Coastal Andhra and Kurnool in the Rayalaseema region.

Districts in the Group-III had low degree of urbanisation through out the period and were also urbanising slowly. These include the districts of Srikakulam and Vijayanagaram in North Coastal Andhra; Mahbubnagar, Medak and Nalgonda in Telangana-I and Warangal in Telangana-II.

Group-I districts had high urban growth and rural to urban migration (URGD). The number of towns had increased in these districts and had a comparable or even higher growth rates in lower size as compared to class-I towns and cities. In these districts 11 new urban agglomerations had come up. They also had an even spread of urban population in all size classes. However, between the period 1961-91 we can observe that there has been an increase in the number of tows in higher size-class and hence higher amount of urban population in them. Thus in these districts urbanisation was growing at a faster rate. This can be observed by a higher urban growth, rural to urban migration, emergence of towns and increase in number of towns in higher size classes and hence population, and low primacy levels. The rapid urbanisation of the region posed a number of questions. Firstly, Why there was a sudden increase in urbanisation in the districts?. Was there any changes in the structure of urban areas which are pulling the workers from the surrounding regions?

Group-II districts had no increase in number of towns and even the number of towns had declined in some of the districts in the group between 1961-91. They had lower urban growth, lower URGD high growth rates of towns, higher concentration of population in higher size class but not in a single town. the interesting point is that these districts were highly developed compared to the districts in the group-I. But urbanisation was slowed down if not stagnated in the districts of the group-II. why is it so?. Does the agricultural prosperity of the region prevent the rural to urban migration and hence urbanisation in the region?. Why the number of towns had slowed down in these districts?. If so how does agricultural prosperity lead to lower rate of urbanisation and why?. What are the crucial forces that led to a slowing down of urbanisation in an agriculturally prosperous region?.

In the Group-III districts both the rate of urbanisation as well as urban growth were low, higher size classes had higher growth rates, concentration of urban population was high in class-I towns and other bigger towns. Interestingly these districts were under the influence of two big urban agglomerations in the state i.e., Visakhapatnam and Hyderabad. From various indicators of urbanisation in these districts it is clear that the two Urban Agglomerations had not led either to higher rate or higher level of urbanisation. Instead, it had led to a lower rate and lower level of urbanisation. Did these UAs play a negative role in the urbanisation of these districts?. If so how did it happen?. We shall look take up these questions in the next chapter.

(c) Another interesting pattern of urbanisation is the emergence of urban agglomerations and Class-I towns especially during 1980s in some of the districts. Prakasam district in South Coastal Andhra, Mahbubnagar in Telangana-I, Karimnagar and Khammam in Telangana-II had class-I towns in 1991. Also during Seventies in the districts of Cuddapah, Anantapur, and Chittoor in Rayalaseema and Vijayanagaram in North Coastal Andhra Class-I towns had emerged. During Eighties new urban agglomerations emerged along with four existing urban agglomerations (table 2.7). They were Warangal in Warangal district, Kakinada in East Godavari district, Kurnool in Kurnool district, Cuddapah and Jammalamadugu in Cuddapah district, Tirupati in Chittoor district, Vijayanagaram in Vijayanagaram district, Khammam and Kothagudem in Khammam district, Chirala and Ongole in Prakasam district. Thus during Seventies and Eighties a large number of Class-I towns and Urban agglomerations emerged in Andhra Pradesh. Some of them were district headquarters (Warangal, Kurnool, Cuddapah, Vijayanagaram, Khammam and Ongole). Does the emergence of few large number of class-I towns and urban agglomerations indicate the development of the regions or they were simply growing because of being the district headquarters or due to concentration of economic activities in them?. If we look at the regions that they belong to it shows that they were mostly from Telangana-II, Southern Coastal Andhra and Rayalaseema sub-regions. We noted earlier that in the former two regions urbanisation has been growing at a faster rate across all the sizes of towns. Hence we can infer that UAs in these regions were growing because of changes in the entire region. In the rest of the UAs it could be either because of being the administrative centres or concentration of economic activities.

(d)   Another interesting pattern is the decline in the declassification of towns and the increase in the emergence of new towns in most of the districts in Andhra Pradesh during Seventies and Eighties as compared to Sixties. The regional dimension of this pattern is more striking. The decline in the hitherto unstable regions (Telangana-II and South Coastal Andhra) and the emerging patter of urbanisation in them indicated that these regions made some progress. What was the progress and how it had led to reversal of unstable pattern in these region in particular and in Andhra Pradesh in general?.

To sum up, urbanisation in Andhra Pradesh had been increasing since 1930s. This was facilitated by the emergence of a large number of towns, increasing spatial spread of urbanisation and a declining primacy. Urban growth was high during the 30s and 40s. This was facilitated by an increasing rural to urban migration. This had continued till 1961. Since 1961, however, the rising urbanisation was accompanied by constant number of towns, increase in primacy and a decline in the spatial spread. Urban growth was high with high rural urban migration. Thus between the two periods the primary contrast was the increase in number of towns till 1961 and a stagnancy in new towns since 1961. This contrast since 1961 was because of new regional and temporal dimensions exhibited in process and patterns of urbanisation by the state.

During the 60s a large number of towns were declassified and new towns had emerged in most parts of the state. Migration was an important factor in explaining this phenomenon. Thus the state showed a highly unstable pattern during the sixties. However,

thereafter with rapid urbanisation it shed its unstable pattern. The seventies also had experienced a rapid urban growth from all size classes of towns. This had continued in 1980s but the tempo had slackened. In the seventies and eighties a large number of new towns and urban agglomerations had emerged.

However, the process and pattern of urbanisation were different at regional levels. Central Coastal Andhra which had exhibited a Stable pattern and an even spread of towns and population through out the study period had slackened its pace of urbanisation. North Coastal Andhra and Telangana-I had rapid Urbanisation dominated by one single city. However, both of them shed their unstable pattern of sixties and entered the phase of rapid urbanisation. Telangana-II and Southern Coastal Andhra shown rapid changes in the patterns of urbanisation. They had changed from unstable patter with low levels of urbanisation to a stable pattern with a high levels of urbanisation. They also had a large number of the emergence of new town and urban agglomerations. Rayalaseema had a Shift from an unstable pattern of urbanisation, but from seventies onward it had slowly but steadily urbanised with an even spatial spread. Thus, the process of urbanisation in the state had shown rapid changes both regionally and temporally after sixties. The changes were widely different among the regions and sub-regions.

Why was there a rapid urbanisation during seventies and eighties?. Why were there regional differences in the patterns of urbanisation?. How can we explain the changes in the regional level?. Why was there a slackening of urbanisation in an agriculturally prosperous region of Central Coastal Andhra and a

rapid change in the process of urbanisation in Telangana-II and South Coastal Andhra?. We will try to answer these questions by analysing the role of migration in the patterns observed above and by also analysing the changes in the structure of the economy and the broad development process of the state. This we do in the subsequent chapters.

Table 2.9: Indicators of Urbanisation in Regions and Sub-Regions of Andhra Pradesh (1961-91)

State/ Region/ Sub-Region	Years	Total No of Towns	Town Density	Average Distance @	Rural Population Per Town (Lakhs)	Degree Of Urbani- sation	Degree Of Urbani- sation#	Urban Growth	URGD
Andhra Pradesh	1961	212	0.8	NA	1.40	17.4	14.0	--	--
	1971	207	0.7	33.7	1.70	19.3	15.2	33.92	15.77
	1981	234	0.9	28.9	1.75	23.3	18.6	48.62	31.63
	1991	213	0.8	NA	2.28	26.9	20.4	43.24	24.83
Coastal Andhra	1961	90	1.0	NA	1.51	16.9	15.4	--	--
	1971	98	1.1	30.6	1.63	19.1	17.3	36.96	19.53
	1981	106	1.1	32.4	1.73	22.9	10.8	44.00	29.20
	1991	98	1.2	NA	2.19	25.4	11.8	34.52	17.52
Telangana	1961	73	0.6	NA	1.41	19.3	9.4	--	--
	1971	67	0.6	36.9	1.87	21.0	9.6	35.61	13.84
	1981	79	0.7	28.8	1.91	25.3	1.8	53.52	32.83
	1991	70	0.7	NA	2.60	30.2	5.0	54.42	33.64
Rayalaseema	1961	49	0.7	NA	1.20	15.5	14.0	--	--
	1971	42	0.6	26	1.58	16.4	14.7	22.22	8.75
	1981	49	0.7	21	1.57	20.3	14.6	49.48	34.17
	1991	45	0.8	NA	2.00	23.2	15.9	38.31	21.23
Northern Coastal Andhra Pradesh	1961	22	0.9	NA	1.82	13.3	5.8	--	--
	1971	30	1.3	51.4	1.50	16.7	9.4	45.91	33.94
	1981	30	1.3	44.9	1.68	20.6	2.9	45.00	32.95
	1991	28	1.3	NA	2.06	25.4	7.3	50.16	35.88
Central Coastal Andhra Pradesh	1961	52	1.3	NA	1.49	19.8	17.4	--	--
	1971	52	1.3	25.6	1.61	22.3	19.1	25.70	17.52
	1981	57	1.5	23.1	1.70	25.7	16.9	39.63	24.07
	1991	52	1.6	NA	2.22	27.2	16.7	28.72	9.73
Southern Coastal Andhra Pradesh	1961	16	0.5	NA	1.13	11.0	8.8	--	--
	1971	16	0.5	34.9	1.91	13.2	10.0	108.53	39.29
	1981	19	0.6	32.1	1.88	17.7	5.9	64.59	47.82
	1991	18	0.7	NA	2.29	19.9	5.8	33.26	17.83
Telangana-I	1961	36	0.7	NA	1.33	26.1	6.7	--	--
	1971	29	0.6	27.4	1.98	28.2	5.8	34.16	13.62
	1981	37	0.7	24	1.89	32.6	1.5	49.66	28.08
	1991	30	0.6	NA	2.85	38.6	3.2	58.55	36.48
Telangana-II	1961	37	0.6	NA	1.48	12.2	9.7	--	--
	1971	38	0.6	36.6	1.77	13.6	10.6	38.79	15.95
	1981	42	0.6	27.4	1.93	17.5	2.0	61.75	41.81
	1991	40	0.7	NA	2.42	20.6	7.0	46.29	26.64

Note:1. @ is average distance from a village to the nearest town.
   2. # is Degree of urbanisation with largest urban units
      population excluded.
   3.Total number of towns were calculated according to 1981
      boundaries
Source: Same as Table 2.1.

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Table 2.10: Number of Towns and concentration of population in towns of six size classes in Regions Regions and Sub-Regions of Andhra Pradesh. (1961-91)

State/ Regions/ Sub-Regions	Years	Number of Towns in Six Classes							Concentration of Population in Towns of Six Size Classes						
		I	II	III	IV	V	VI	I-VI	I	II	III	IV	V	VI	I-VI
Andhra Pradesh	1961	11	8	50	71	70	2	212	43	8	24	16	9	0	100
	1971	13	17	59	76	38	4	207	48	13	21	13	4	0	99
	1981	20	30	87	65	28	4	234	54	16	21	7	2	0	100
	1991	32	34	90	39	14	3	213	67	13	16	3	1	0	100
Coastal Andhra	1961	8	2	27	34	19	0	90	43	6	28	17	6	0	100
	1971	9	6	30	33	19	1	98	48	10	25	13	4	0	100
	1981	11	11	42	31	9	2	106	53	13	24	8	1	0	99
	1991	14	12	44	20	7	0	98	63	12	20	4	1	0	100
Telangana	1961	2	3	10	22	34	2	73	57	8	11	12	10	0	98
	1971	3	3	17	29	12	3	67	64	6	14	13	3	0	100
	1981	3	9	32	21	12	2	79	60	13	19	6	2	0	100
	1991	8	15	28	12	5	2	70	73	12	12	2	1	0	100
Rayalaseena	1961	1	3	13	15	17	0	49	10	17	41	19	14	0	101
	1971	1	8	12	14	7	0	42	10	43	27	15	4	0	99
	1981	6	10	13	13	7	0	49	39	32	17	10	3	0	101
	1991	10	7	18	7	2	1	45	59	17	19	4	1	0	100
Northern Coastal Andhra Pradesh	1961	1	1	6	7	7	0	22	34	12	29	14	10	0	99
	1971	1	2	4	12	10	1	30	40	16	15	19	9	1	100
	1981	2	2	7	13	5	1	30	45	9	29	12	2	0	97
	1991	2	2	13	8	3	0	28	63	12	20	4	1	0	100
Central Coastal Andhra Pradesh	1961	6	1	17	21	7	0	52	49	4	27	17	3	0	100
	1971	7	2	23	13	7	0	52	54	5	29	8	2	0	98
	1981	8	7	26	11	4	1	57	58	13	24	4	1	0	100
	1991	9	8	22	10	2	0	52	65	13	19	3	0	0	100
Southern Coastal Andhra Pradesh	1961	1	0	4	6	5	0	16	29	0	35	24	12	0	100
	1971	1	2	3	8	2	0	16	29	23	18	26	4	0	100
	1981	1	2	9	7	0	0	19	31	20	36	13	0	0	100
	1991	3	2	9	2	2	0	18	57	12	26	3	2	0	100
Telangana-I	1961	1	1	3	11	18	2	36	74	3	5	10	8	0	100
	1971	1	1	7	12	6	2	29	80	2	7	8	2	0	99
	1981	1	2	15	11	8	0	37	75	4	13	5	2	0	99
	1991	2	5	15	6	1	1	30	83	6	9	2	0	0	100
Telangana-II	1961	1	2	7	11	16	0	37	20	19	26	19	15	0	99
	1971	2	2	10	17	6	1	38	30	12	29	24	4	0	99
	1981	2	7	17	10	4	2	42	30	30	30	8	2	0	100
	1991	6	10	13	6	4	1	40	53	25	17	4	1	0	100

Note: Same as for Table 2.5
Source: Same as Table 2.1

Table 2.11: Growth Rates of Towns in Six Size Classes and Components of Urban Growth
in Regions and Sub-Regions of Andhra Pradesh. (1961-91)

State/ Region/ Sub-Regions		Growth Rates of Towns in Six Classes (method 1)							Growth Rates of Towns in Six Classes (method 2)							Components of Growth Rate			
		I	II	III	IV	V	VI	I-VI	I	II	III	IV	V	VI	I-VI	R	Re	Rd	Ri
Andhra Pradesh	1961-71	42	19	34	29	32	--	35	42	19	34	29	32	--	36	33.9	6.5	4.8	32.3
	1971-81	47	37	45	43	46	--	45	46	45	46	45	35	19	45	48.6	4.1	0.1	44.7
	1981-91	48	37	29	28	32	--	39	54	38	33	60	20	-4	47	43.2	8.3	1.2	36.1
Coastal Andhra	1961-71	42	22	30	25	26	--	34	42	22	30	25	26	--	34	37.0	7.1	2.7	32.6
	1971-81	50	23	37	33	44	--	42	48	40	35	38	29	-2	42	44.0	2.9	0.3	41.4
	1981-91	48	37	29	28	32	--	39	71	22	20	38	22	6	51	34.5	6.5	1.0	29.0
Telangana	1961-71	43	102	33	38	37	--	37	43	102	37	38	37	--	38	35.6	6.7	5.1	34.0
	1971-81	44	44	60	58	49	--	48	45	53	65	58	46	28	50	53.5	5.3	0.0	48.2
	1981-91	65	22	36	38	45	--	54	63	39	42	118	12	-15	58	54.4	10.6	1.1	45.0
Rayalaseema	1961-71	36	37	41	23	34	--	36	36	37	41	23	34	--	36	22.2	4.3	9.6	27.5
	1971-81	51	42	49	36	43	--	45	51	45	47	41	32	--	45	49.5	4.5	0.0	45.0
	1981-91	33	32	50	38	32	--	42	48	40	32	35	35	--	41	38.3	7.2	1.9	33.0
Northern Coastal Andhra Pradesh	1961-71	72	13	17	17	23	--	36	72	13	17	17	23	--	34	45.9	15.2	3.0	33.7
	1971-81	66	33	30	22	50	--	46	66	31	29	36	29	-2	46	45.0	0.9	0.0	44.2
	1981-91	74	53	21	26	26	--	52	71	22	20	38	22	6	51	50.2	17.2	0.6	33.5
Central Coastal Andhra Pradesh	1961-71	37	31	34	29	30	--	34	37	31	34	29	30	--	34	25.7	5.3	3.0	23.3
	1971-81	42	16	37	33	35	--	38	40	46	35	34	27	--	38	39.6	2.4	0.0	37.2
	1981-91	41	21	23	28	25	--	34	39	25	26	20	21	--	34	28.7	2.8	0.6	26.6
Southern Coastal Andhra Pradesh	1961-71	25	--	34	21	24	--	28	25	--	34	21	34	--	27	108.5	0.0	0.0	108.5
	1971-81	77	--	46	45	48	--	56	78	46	47	41	32	--	45	64.6	9.5	2.6	57.7
	1981-91	33	--	57	29	45	--	42	63	39	42	118	12	-15	58	33.3	4.7	3.0	31.6
Telangana-I	1961-71	44	-71	32	35	33	--	38	44	-71	33	35	33	--	38	34.2	14.3	7.5	31.9
	1971-81	42	22	67	62	56	--	45	42	45	61	63	55	-15	46	61.7	4.1	0.0	57.7
	1981-91	68	3	32	36	45	--	61	68	34	41	24	17	--	61	46.3	6.2	1.9	42.0
Telangana-II	1961-71	33	28	33	41	41	--	35	33	29	39	41	41	--	36	38.8	14.3	7.5	31.9
	1971-81	42	45	58	54	41	--	54	60	46	67	54	36	-41	58	61.7	4.1	0.0	57.7
	1981-91	39	23	38	40	44	--	36	37	41	43	223	7	-15	54	46.3	6.2	1.9	42.0

Notes: For Size Classes same as for Table 2.5

1. In Method-I Growth Rates are calculated for towns common in 1961 and 1971, for towns common in 1971 and 1981 by their size class in 1971 and for towns common in 1981 and 1991 by their size class in 1981.

2. In Method-II Growth Rates were calculated for common towns between 1961-91 with 1961 as base for classification.

3. R, Re, Rd, Ri are Growth rate, Extensive Component, Declassification Component, and Intensive Component respectively.

Source: Same as Table 2.1

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Table 2.12: Indicators of Urbanisation in Districts of Andhra Pradesh.

District/State	Total No of Towns				Town Density (town per 1000 Sq.Km)				Average Distance from a Village to Nearest Town		Rural Population per town(lakhs)			
	1961	1971	1981	1991	1961	1971	1981	1991	1971	1981	1961	1971	1981	1991
Srikakulam	9	11	11	11	1.2	1.1	1.9	2.0	21.6	19.3	1.8	2.1	1.6	1.8
Vijayanagaram	5	9	10	7	--	--	1.5	1.4	--	25.4	0.0	0.0	1.5	2.5
Visakhapatanam	8	10	9	10	0.7	0.8	0.9	0.9	81.2	90.2	2.1	2.0	1.8	2.0
East Godavari	13	11	13	13	1.3	1.2	1.6	1.8	22.3	46.5	1.5	1.9	1.7	2.7
West Godavari	11	11	14	10	1.3	1.3	1.4	1.5	39.1	21.9	1.7	2.0	2.1	2.8
Krishna	12	14	15	16	1.5	1.8	1.9	1.9	20.5	10.5	1.2	1.1	1.2	1.5
Guntur	16	16	15	13	1.4	1.4	1.3	1.3	20.5	13.4	1.5	1.3	1.7	2.2
Prakasam	9	9	11	9	0.5	0.5	0.6	0.7	26.0	26.3	0.0	1.9	1.8	2.6
Nellore	7	7	8	9	0.5	0.5	0.6	0.8	43.9	37.9	2.6	1.9	2.0	2.0
Chittoor	13	13	13	12	0.8	0.8	0.9	1.1	22.8	18.9	1.3	1.5	1.8	2.2
Cuddapah	9	8	14	10	0.6	0.5	0.8	0.8	24.6	17.0	1.3	1.7	1.2	1.7
Anantapur	14	11	11	12	0.7	0.6	0.6	0.6	29.7	24.1	1.0	1.6	1.8	2.0
Kurnool	13	10	11	11	0.7	0.5	0.6	0.8	26.9	24.0	1.2	1.6	1.7	2.0
Mahbubnagar	14	11	11	11	0.8	0.6	0.6	0.6	29.6	25.8	1.0	1.6	2.0	2.5
Ranga Reddy	2	2	3	3	--	--	2.1	0.4	--	22.5	0.0	0.0	0.8	4.5
Hyderabad	4	2	3	1	0.5	0.5	23.0	4.6	24.6	0.0	2.0	2.4	0.0	0.0
Medak	8	8	10	7	0.8	0.8	1.0	0.7	30.1	20.5	1.4	1.7	1.6	2.8
Nizamabad	6	6	7	6	0.8	0.8	0.9	0.8	NA	NA	1.5	1.8	1.5	2.7
Adilabad	10	11	12	11	0.6	0.7	0.7	0.8	40.2	29.5	0.9	1.0	1.1	1.5
Karimnagar	8	11	12	10	0.7	0.9	1.0	0.9	30.8	19.0	1.9	1.6	1.7	2.4
Warangal	8	4	4	4	0.6	0.3	0.3	0.4	59.0	37.2	1.7	4.0	4.8	5.7
Khammam	5	6	7	9	0.3	0.4	0.4	0.7	52.9	51.2	1.9	2.0	2.1	2.0
Nalgonda	8	6	10	8	0.6	0.4	0.7	0.6	27.7	25.1	1.8	2.8	2.0	3.1
Andhra pradesh	212	207	234	213	0.8	0.8	0.9	0.9	33.7	28.9	1.3	1.6	1.6	2.3

Source: Same as Table 2.1

Table 2.13: Indicators of Urbanisation in Andhra Pradesh (1961-91)

District/State	Degree of Urbanisation				Degree of Urbanisation with the largest urban units population excluded				Urban Growth			Urban Rural Growth Difference		
	1961	1971	1981	1991	1961	1971	1981	1991	1961-71	1971-81	1981-91	1961-71	1971-81	1981-91
Srikakulam	8.7	10.6	10.9	12.5	X	X	X	X	34.73	-22.62	36.04	26.40	1.82	19.90
Vijayanagaram	--	--	15.9	17.2	X	X	9.6	8.9	--	--	26.44	--	--	11.22
Visakhapatanam	18.0	22.3	31.3	39.6	8.6	9.3	7.9	7.8	51.44	28.85	62.36	35.35	47.63	50.73
East Godavari	16.5	19.2	22.2	23.8	13.5	13.1	14.9	14.9	22.78	36.51	31.46	5.42	23.06	11.25
West Godavari	15.9	17.7	20.3	20.7	10.4	12.4	14.9	14.6	33.89	41.98	22.06	16.49	25.44	-0.42
Krishna	23.5	27.3	32.5	35.6	12.2	13.4	14.7	12.9	39.19	45.99	33.56	25.01	32.63	18.12
Guntur	20.8	25.0	27.5	28.9	14.6	15.5	16.8	17.4	13.35	33.08	25.48	23.81	16.43	8.16
Prakasam	--	11.1	15.0	16.5	X	X	X	5.2	--	64.27	29.95	--	48.28	13.54
Nellore	11.0	15.8	20.8	23.8	5.7	7.5	9.0	10.6	13.47	64.85	36.01	38.56	47.10	21.81
Chittoor	11.5	13.5	16.9	19.8	9.6	10.6	12.7	14.0	40.01	50.31	39.75	23.31	35.29	24.80
Cuddapah	13.2	14.2	19.4	24.0	9.4	9.7	13.8	14.5	26.27	67.46	45.52	10.07	52.30	35.00
Anantapur	17.4	17.8	20.8	23.5	14.4	14.0	16.2	18.0	22.16	41.28	40.90	3.09	25.32	20.14
Kurnool	19.2	20.3	24.5	25.8	14.0	13.4	15.9	16.6	9.67	46.50	30.27	7.21	31.43	8.37
Mahbubnagar	10.0	9.0	10.9	11.1	X	X	X	7.3	8.54	54.18	28.06	-14.37	30.37	2.45
Ranga Reddy	--	--	23.6	47.2	X	X	10.0	8.8	--	--	219.68	--	--	207.92
Hyderabad	62.2	65.9	100.0	100.0	1.6	1.5	0.0	0.0	43.38	22.93	39.16	21.29	122.93	--
Medak	7.7	8.5	12.0	14.5	X	X	X	X	31.73	73.34	51.79	13.15	54.69	29.75
Nizamabad	14.5	15.9	19.2	20.3	6.6	7.1	8.3	8.4	41.19	54.10	27.98	14.85	31.17	8.26
Adilabad	15.5	15.9	19.3	23.1	X	X	X	X	31.16	54.56	51.92	4.15	32.52	30.83
Karimnagar	7.1	10.7	15.8	20.6	X	X	X	X	83.79	82.80	62.27	67.44	65.80	44.65
Warangal	14.1	13.4	17.2	19.4	4.0	2.3	2.7	2.8	15.33	57.80	37.87	-6.68	40.26	18.52
Khammam	12.1	13.6	17.0	20.2	X	X	X	8.8	44.98	59.79	50.70	17.58	36.95	29.15
Nalgonda	9.3	6.7	11.4	11.9	X	X	X	6.1	-16.98	113.26	30.42	-35.86	94.29	5.99
Andhra Pradesh	17.4	19.3	23.3	26.9	14.0	15.2	18.6	20.4	33.92	48.62	43.24	15.77	31.63	24.83

Note: 1. While deducting the largest Urban Units Population only the Class I Towns were considered.

Source: Same as Table 2.1.

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Table 2.14: Concentration of Towns in Six size Classes in the districts of Andhra Pradesh

State/ District/ Regions	1961							1971							1981							1991						
	I	II	III	IV	V	VI	I-VI	I	II	III	IV	V	VI	I-VI	I	II	III	IV	V	VI	I-VI	I	II	III	IV	V	VI	I-VI
Srikakulam	0	0	1	5	3	0	9	0	0	1	6	4	0	11	0	1	1	8	1	0	11	0	1	5	4	1	0	11
Vijayanagaram	0	1	3	0	1	0	5	0	1	3	1	4	0	9	1	0	3	3	3	0	10	1	0	3	3	0	0	7
Visakhapatnam	1	0	2	2	3	0	8	1	1	0	5	2	1	10	1	1	3	2	1	1	9	1	1	5	1	2	0	10
East Godavari	2	0	5	5	1	0	13	2	0	7	1	1	0	11	2	0	7	2	2	0	13	2	0	7	3	1	0	13
West Godavari	1	0	5	4	1	0	11	1	1	6	3	0	0	11	2	2	7	1	1	1	14	2	4	4	0	0	0	10
Krishna	2	0	6	1	3	0	12	2	1	2	5	4	0	14	2	1	6	6	0	0	15	3	0	7	5	0	0	16
Guntur	1	1	6	6	2	0	16	2	0	8	4	2	0	16	2	4	6	2	1	0	15	2	4	4	2	1	0	13
Prakasam	0	0	2	4	3	0	9	0	2	1	5	1	0	9	0	2	4	5	0	0	11	2	0	5	2	0	0	9
Nellore	1	0	2	2	2	0	7	1	0	2	3	1	0	7	1	0	5	2	0	0	8	1	2	4	0	2	0	9
Chittoor	0	0	4	3	6	0	13	0	2	2	6	3	0	13	1	3	3	5	1	0	13	2	2	5	3	0	0	12
Cuddapah	0	1	1	3	4	0	9	0	1	2	2	2	3	8	2	0	3	3	6	0	14	2	1	3	2	2	0	10
Anantapur	0	1	6	3	4	0	14	0	2	6	2	1	0	11	1	5	3	2	0	0	11	3	2	4	1	0	1	12
Kurnool	1	1	2	6	3	0	13	1	2	3	4	1	0	10	2	2	4	3	0	0	11	3	1	6	1	0	0	11
Mahbubnagar	0	0	2	2	10	0	14	0	1	2	3	4	1	11	0	1	3	6	1	0	11	1	0	5	4	0	1	11
Ranga Reddy	0	0	0	1	1	0	2	0	0	1	1	0	0	2	0	0	2	0	1	0	3	0	0	2	1	0	0	3
Hyderabad	1	0	0	0	1	2	4	1	0	0	0	1	0	2	1	0	0	1	1	0	3	1	0	0	0	0	0	1
Medak	0	0	0	5	3	0	8	0	0	1	6	0	1	8	0	0	6	2	2	0	10	0	2	4	0	1	0	7
Nizamabad	0	1	1	2	2	0	6	1	0	1	4	0	0	6	1	1	2	2	1	0	7	1	1	2	1	1	0	6
Adilabad	0	0	3	3	4	0	10	0	0	5	3	2	1	11	0	1	6	2	2	1	12	0	6	2	1	2	0	11
Karimnagar	0	0	2	3	3	0	8	0	0	4	4	3	0	11	0	3	4	4	1	0	12	2	2	3	2	1	0	10
Warangal	1	0	0	2	5	0	8	1	0	0	3	0	0	4	1	0	2	1	0	0	4	1	0	2	1	0	0	4
Khammam	0	1	1	1	2	0	5	0	2	0	3	1	0	6	0	2	3	1	0	1	7	2	1	4	1	0	1	9
Nalgonda	0	1	1	3	3	0	8	0	0	3	2	1	0	6	0	1	4	2	3	0	10	0	3	4	1	0	0	8
Andhra Pradesh	11	8	50	71	70	2	212	13	17	59	76	38	4	207	20	36	87	65	25	4	234	32	34	90	39	14	3	212

Note: Same as for Table 2.10
Source: Same as for Table 2.1.

Table 2.15: Concentration of Population in towns of Six Size Classes in Districts of Andhra Pradesh.

District/ State/ Regions	1961							1971							1981							1991						
	I	II	III	IV	V	VI	I-VI	I	II	III	IV	V	VI	I-VI	I	II	III	IV	V	VI	I-VI	I	II	III	IV	V	VI	I-VI
Srikakulam	0	0	30	51	19	0	100	0	0	28	52	21	0	100	0	32	10	55	3	0	100	0	31	45	22	3	0	100
Vijayanagaram	0	47	47	0	6	0	100	0	39	42	5	14	0	100	40	0	38	15	8	0	100	49	0	36	15	0	0	100
Visakhapatnam	63	0	21	8	8	0	100	70	11	0	14	3	1	100	75	9	10	4	1	1	100	81	6	11	1	1	0	100
East Godavari	54	0	28	17	2	0	100	61	0	35	2	1	0	100	63	0	32	3	2	0	100	67	0	28	4	1	0	100
West Godavari	33	0	47	19	2	0	100	29	15	45	12	0	0	100	43	18	35	3	1	1	100	46	36	18	0	0	0	100
Krishna	69	0	9	17	5	0	100	67	9	6	12	5	0	100	69	8	15	8	0	0	100	80	0	15	5	0	0	100
Guntur	36	15	29	17	3	0	100	52	0	37	8	2	0	100	51	25	20	3	1	0	100	56	26	15	3	1	0	100
Prakasam	0	0	49	35	16	0	100	0	51	10	34	5	0	100	0	45	34	21	0	0	100	60	0	34	6	0	0	100
Nellore	53	0	23	16	8	0	100	53	0	25	19	4	0	100	57	0	37	6	0	0	100	56	21	20	0	3	0	100
Chittoor	0	0	61	17	21	0	100	0	42	23	27	8	0	100	25	42	15	16	2	0	100	50	21	21	8	0	0	100
Cuddapah	0	29	28	25	18	0	100	0	61	20	11	8	0	100	55	0	22	11	12	0	100	64	9	18	5	3	0	100
Anantapur	0	17	56	15	12	0	100	0	39	50	9	2	0	100	23	56	16	6	0	0	100	52	29	17	2	0	0	100
Kurnool	31	21	19	21	8	0	100	34	37	13	15	2	0	100	53	24	16	7	0	0	100	69	8	21	2	0	0	100
Mahbubnagar	0	0	35	18	47	0	100	0	30	25	23	21	2	100	0	33	33	32	3	0	100	34	0	48	17	0	1	100
Ranga Reddy	0	0	0	65	35	0	100	0	0	63	37	0	0	100	0	0	84	0	16	0	100	0	0	87	13	0	0	100
Hyderabad	99	0	0	0	0	0	100	100	0	0	0	0	0	100	99	0	0	0	0	0	100	100	0	0	0	0	0	100
Medak	0	0	0	74	26	0	100	0	0	21	75	0	4	100	0	0	80	13	6	0	100	0	44	53	0	3	0	100
Nizamabad	0	53	21	16	10	0	100	55	0	18	27	0	0	100	57	16	18	8	2	0	100	58	16	20	5	1	0	100
Adilabad	0	0	52	29	19	0	100	0	0	70	22	6	1	100	0	17	69	9	4	0	100	0	80	13	3	4	0	100
Karimnagar	0	0	46	34	20	0	100	0	0	60	28	12	0	100	0	55	28	15	2	0	100	58	19	16	5	2	0	100
Warangal	72	0	0	12	17	0	100	83	0	0	17	0	0	100	85	0	12	4	0	0	100	86	0	12	3	0	0	100
Khammam	0	54	28	9	9	0	100	0	71	0	25	4	0	100	0	65	30	4	0	2	100	56	12	28	3	0	1	100
Nalgonda	0	38	17	30	16	0	100	0	0	63	29	8	0	100	0	24	54	14	8	0	100	0	62	26	3	0	0	100
Andhra Pradesh	43	8	24	16	9	0	100	48	13	21	13	4	0	100	54	16	21	7	2	0	100	67	13	16	3	1	0	100

Note: Same as for Table 2.10
Source:Same as Table 2.1.

Table 2.16: Components of Urban Growth in Districts of Andhra Pradesh

District State	1961-71				1971-81				1981-91			
	R	Re	Ri	Rd	R	Re	Ri	Rd	R	Re	Ri	Rd
Srikakulam	34.7	19.6	19.5	4.4	-22.6	0.0	-22.6	0.0	36.0	0.0	36.0	0.0
Vijayanagaram	--	--	--	--	--	--	--	--	26.4	0.0	29.1	2.7
Visakhapatana	51.4	13.0	40.8	2.4	28.9	0.0	28.9	0.0	62.4	27.9	34.4	0.0
East Godavari	22.8	4.7	24.1	6.0	38.5	4.8	33.7	0.0	31.5	1.0	31.0	0.5
West Godavari	33.9	5.4	30.2	1.7	42.0	4.1	37.9	0.0	22.1	0.0	24.9	2.9
Krishna	39.2	9.3	29.9	0.0	46.0	1.9	44.1	0.0	33.6	8.6	25.0	0.0
Guntur	13.4	2.7	14.2	3.6	33.1	0.0	33.1	0.0	25.5	0.0	25.5	0.0
Prakasam	--	--	--	--	64.3	15.8	54.2	5.7	30.0	7.9	28.7	6.7
Nellore	13.5	0.0	13.5	0.0	64.9	4.2	60.7	0.0	36.0	2.1	33.9	0.0
Chittoor	40.0	2.8	40.9	3.7	50.3	0.0	50.3	0.0	39.7	0.0	39.7	0.0
Cuddapah	26.3	6.6	29.1	9.5	67.5	17.9	49.5	0.0	45.5	21.6	29.1	5.1
Anantapur	22.2	0.0	31.2	9.1	41.3	0.0	41.3	0.0	40.9	0.2	40.7	0.0
Kurnool	9.7	7.7	15.5	13.5	46.5	4.7	41.8	0.0	30.3	10.2	23.3	3.2
Mahbubnagar	8.5	2.0	23.6	17.0	54.2	0.0	54.2	0.0	28.1	0.0	28.1	0.0
Ranga Reddy	--	--	--	--	--	--	--	--	219.7	0.0	219.7	0.0
Hyderabad	43.4	2.0	41.6	0.2	22.9	0.5	22.4	0.0	39.2	17.1	22.1	0.0
Medak	31.7	16.8	30.1	15.2	73.1	16.5	56.7	0.0	51.8	21.2	34.5	4.0
Nizamabad	41.2	7.4	38.2	4.4	54.1	5.0	49.1	0.0	28.0	0.0	31.2	3.2
Adilabad	31.2	26.8	19.3	15.0	54.6	3.5	51.1	0.0	51.9	10.3	41.6	0.5
Karimnagar	83.8	33.7	50.0	0.0	82.8	10.0	72.8	0.0	62.3	0.0	67.8	5.5
Warangal	15.3	0.0	27.9	12.5	57.8	0.0	57.8	0.0	37.9	1.7	36.2	0.0
Khammam	45.0	14.2	30.8	0.0	59.8	2.5	57.3	0.0	50.7	21.9	28.8	0.0
Nalgonda	-17.0	6.6	-7.7	15.8	113.3	31.6	81.7	0.0	30.4	0.0	36.0	5.5
Andhra Pradesh	33.9	6.5	32.3	4.8	48.6	4.1	44.7	0.1	43.2	8.3	36.1	1.2

Notes:
1. R, Re, Ri and Rd stand for Urban Growth, Extensive Component, Intensive component and Declassification Component respectively.

2. The population of the declassified towns is their population in the year when they were urban i.e., the previous census year.

3. The districts of Prakasam, Vijayanagaram and Rangareddy do not have information because the district of Prakasam was formed in 1971 and the rest in 1981 census periods.

Source: Same as Table 2.1.

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Table 2.17: Growth rates of population in Towns of Six Size Classes in districts of Andhra Pradesh.

District/State Regions	1961-71							1971-81							1981-91						
	I	II	III	IV	V	VI	I-VI	I	II	III	IV	V	VI	I-VI	I	II	III	IV	V	VI	I-VI
Srikakulam	--	--	29	18	18	--	21	--	--	51	21	10	--	30	--	--	30	30	26	--	29
Vijayanagaram	--	13	19	--	21	--	16	--	33	19	--	20	--	25	--	53	20	--	37	--	37
Visakhapatnam	72	--	8	14	29	--	51	66	--	31	25	94	--	59	74	--	16	17	23	--	61
East Godavari	40	--	17	25	12	--	31	40	--	20	28	27	--	33	48	--	22	23	12	--	39
West Godavari	17	--	39	35	--	--	31	32	--	45	28	--	--	38	27	--	26	25	--	--	26
Krishna	36	--	36	31	41	--	36	49	--	31	35	41	--	45	47	--	27	26	28	--	41
Guntur	44	31	42	23	16	--	38	36	16	44	37	24	--	35	28	21	20	37	25	--	26
Prakasam	--	--	33	31	20	--	30	--	--	46	60	40	--	49	--	--	72	28	32	--	53
Nellore	25	--	37	23	31	--	26	77	--	46	41	59	--	61	33	--	31	34	60	--	35
Chittoor	--	--	49	20	43	--	42	--	--	54	36	50	--	51	--	--	49	27	30	--	42
Cuddapah	--	40	35	28	10	--	33	--	51	56	42	17	--	49	--	25	109	51	25	--	61
Anantapur	--	53	35	16	16	--	34	--	49	43	24	34	--	41	--	46	41	30	38	--	41
Kurnool	36	22	46	32	33	--	34	51	28	49	40	36	--	43	33	25	33	41	47	--	33
Mahbubnagar	--	--	31	34	22	--	28	--	--	57	54	48	--	53	--	--	30	33	29	--	30
Ranga Reddy	-	--	--	32	45	--	36	--	--	--	47	58	--	51	--	--	--	40	89	--	55
Hyderabad	44	--	--	--	--	--	44	42	--	--	--	--	--	42	68	--	--	--	--	--	68
Medak	--	--	--	30	76	--	36	--	--	--	51	82	--	56	--	--	--	31	60	--	36
Nizamabad	--	46	22	48	27	--	40	--	58	35	63	36	--	54	--	32	27	46	34	--	34
Adilabad	--	--	15	37	20	--	23	--	--	42	54	35	--	46	--	--	14	44	48	--	28
Karimnagar	--	--	52	48	49	--	50	--	--	75	53	29	--	58	--	--	55	34	48	--	47
Warangal	33	--	--	28	23	--	32	62	--	--	45	27	--	58	39	--	--	35	10	--	38
Khammam	--	8	59	53	58	--	31	--	26	74	63	76	--	51	--	8	51	42	56	--	34
Nalgonda	--	-71	36	44	--	--	-9	--	22	89	88	--	--	79	--	3	36	41	--	--	36
Andhra Pradesh	42	19	34	29	32	--	35	47	37	45	43	46	--	45	56	30	35	29	38	--	44

Note: Growth rates of population in towns of six size classes were calculated with 1961 as the base for classification of towns.

Source: Same as Table 2.1.

Table 2.18: Growth Rates of Population in Towns of Six Size Classes in Districts of Andhra Pradesh

Districts/State Regions	1961-71							1971-81							1981-91						
	I	II	III	IV	V	VI	I-VI	I	II	III	IV	V	VI	I-VI	I	II	III	IV	V	VI	I-VI
Srikakulam	--	--	28.8	17.6	17.7	--	21.2	--	--	50.8	22.3	23.5	--	30.4	--	30.1	19.1	43.0	16.4	--	35.7
Vijayanagaram	--	12.8	19.0	--	21.4	--	16.2	--	32.6	18.5	19.7	36.6	--	27.1	53.4	--	19.9	32.3	--	--	36.3
Visakhapatnam	72.1	--	8.0	14.5	29.1	--	51.2	66.1	27.8	--	53.4	12.8	-2.4	58.4	74.3	15.3	19.4	27.7	27.0	6.4	60.5
East Godavari	39.6	--	17.4	25.1	11.8	--	30.9	40.2	--	22.9	16.1	26.5	--	33.4	47.8	--	22.6	15.4	13.2	--	38.3
West Godavari	17.3	--	38.8	32.1	--	--	30.3	32.4	59.8	36.9	30.6	--	--	38.2	25.3	30.7	25.4	--	--	--	26.4
Krishna	36.2	--	36.3	31.0	41.0	--	35.5	49.1	31.3	30.9	39.2	29.6	--	44.1	47.4	26.7	27.6	22.3	--	--	40.9
Guntur	44.3	31.1	43.2	25.4	15.5	--	38.6	30.6	--	43.1	34.2	22.4	--	35.4	26.3	21.6	31.8	16.7	34.3	--	25.6
Prakasam	--	--	32.8	28.8	19.5	--	29.3	--	45.9	54.4	55.8	8.5	--	48.5	--	72.1	29.9	30.1	--	--	52.3
Nellore	25.1	--	37.3	8.5	31.3	--	25.8	77.5	--	41.0	52.7	--	--	60.7	33.5	--	33.8	37.6	--	--	33.9
Chittoor	--	--	48.7	19.8	43.0	--	42.4	--	56.4	49.2	45.7	37.2	--	50.3	64.0	39.5	22.3	34.8	--	--	34.9
Cuddapah	--	39.9	35.0	27.6	11.5	--	32.2	--	53.4	40.3	63.8	21.8	--	49.5	66.2	--	51.1	31.1	34.6	--	57.6
Anantapur	--	53.2	34.6	15.8	15.9	--	34.9	--	39.4	47.3	17.5	33.6	--	41.3	46.2	42.7	26.8	36.4	--	--	40.6
Kurnool	35.6	22.0	46.1	31.8	32.8	--	34.0	50.9	32.7	47.5	39.3	37.7	--	41.8	30.2	33.4	26.7	34.9	--	--	30.6
Mahbubnagar	--	--	31.0	33.8	22.2	--	28.5	--	63.1	35.0	62.6	41.3	116.6	54.2	--	33.5	28.8	29.1	-46.3	--	28.5
Ranga Reddy	--	--	--	31.5	45.1	--	36.3	--	--	47.4	58.2	--	--	51.5	--	--	59.0	--	29.1	--	54.4
Hyderabad	43.8	--	--	--	31.8	--	43.7	41.7	--	--	--	46.4	--	41.7	68.1	--	--	--	--	--	68.1
Medak	--	--	--	29.9	76.5	--	35.6	--	--	62.6	57.6	--	6.3	56.7	--	--	37.9	21.3	26.5	--	36.0
Nizamabad	--	46.2	21.5	47.7	27.3	--	40.0	58.3	--	35.2	39.5	--	--	49.1	31.6	26.7	46.4	34.2	-28.8	--	32.2
Adilabad	--	--	14.8	37.0	--	20.3	22.7	--	--	51.7	53.7	30.7	-40.8	51.1	--	57.5	46.5	157.7	24.0	--	58.5
Karimnagar	--	--	52.0	48.0	49.0	--	50.0	--	--	93.8	43.9	35.3	--	72.8	--	55.2	33.9	395.2	10.9	--	113.0
Warangal	32.9	--	--	28.3	23.5	--	31.9	61.5	--	--	40.2	--	--	57.8	39.3	--	38.7	9.7	--	--	37.7
Khammam	--	8.3	58.6	53.1	58.0	--	30.9	--	46.2	--	92.0	43.7	--	57.3	--	29.5	45.1	34.3	--	19.4	34.8
Nalgonda	--	-70.8	35.9	43.6	--	--	-9.2	--	--	78.3	20.3	113.7	--	81.7	--	35.6	44.7	13.2	53.1	--	37.3
Andhra Pradesh	42.0	18.9	33.8	28.9	31.4	--	35.3	46.2	44.6	45.6	44.7	34.9	18.5	45.3	54.1	37.6	32.9	59.7	20.4	-4.0	47.2

Notes:
Growth Rates are calculated for towns common in 1961 and 1971 by
their size class in 1961 and for towns common in 1971 and 1981 by
their size class in 1971 and for towns common in 1981 and 1991 by
their size class in 1981

Source: Same as Table 2.1.

CHAPTER III

MIGRATION AND URBANIZATION

While observing the patterns of urbanisation we noticed, ^that^ in all regions of the Andhra Pradesh except Central Coastal Andhra, an unstable pattern during 60s and its disappearance during seventies and eighties, a high urban growth, emergence of new towns since seventies. The main sources of urban growth are the natural growth of population (the difference between birth and death rates), Net migration (in-migration less out-migration) and emergence and declassification of towns. However, the net of the latter source hardly exceeds 10 percent of total urban growth. Hence, major sources of urban growth are Natural increase of population. The role of natural growth rate and net migration was summarised by Ledent as follows: "the principal affect of migration is to determine the level of urbanisation, whereas that of natural increase is to establish the urban growth rate"[Ledent 1982]. He also stated that "although a sharp increase in the rate of rural-to-urban migration temporarily raises the urban population growth rate, its ultimate effect is to urbanise the population more rapidly and thereby to depress the urban growth rate to a lower level than it would have reached in the absence of the increase"[Ledent 1982]. Thus, it is rural urban migration that is significant in the analysis of urbanisation. Since the urban growth of developing countries is significantly effected by a high natural growth of population we should also take note o it.

In this chapter we shall try to analyze the role of migration in moulding the patterns of urbanisation that we observed in the previous chapter. To analyze the role of migration in the urbanisation patterns we decompose intensive component into natural increase and Net migration. For this we use inter censal cohort comparisons method.

The Decomposition Method:

For decomposing the intensive component we followed inter censal cohort comparisons of total and urban population method used by UN Population Division(1980). This method decomposes urban growth into natural increase and net migration inclusive of reclassification component. This involves inter censal cohort (age-group) comparisons of total and urban population. Exceptional changes in urban growth are attributed to net migration and area reclassification. When the contribution of area reclassification and net migration are deducted from urban growth we will get the contribution of natural increase of population. If the contribution of area reclassification is deducted from the resultant figure i.e., net of natural increase of population, we will get the contribution of net migration.

The procedure is as follows and defined for each sex.

$T(i,1)$ = Population in the age interval 'i'(five years wide was used) at the initial Census;

$T(i,2)$ = Population in the age interval 'i' at the second Census 10 years later;

$U(i,1)$ $U(i,2)$ = Urban Population size in age interval 'i' at the first and second census.

Then the method of calculation for each district is as follows:

1). Calculate the cohort "survival" rates for the total population.

$$S(i) = T(i+2,2)/T(i,1)$$

Assume that the survival rates are the same in rural and urban population as of the total population. Apply the survival rates of total population to the appropriate cohorts of urban areas at time 1 to derive an expected urban population in the cohort 10 years later.

$$EU(i+2,2) = S(i)*U(i,1)$$

3). Subtract the expected urban population from the actual urban population. Then we will get the estimate of net surviving migrants in urban areas.

$$NSM(i+2,2) = U(i+2,2-EU(i+2,2);$$

4). Survive backwards the Net Surviving Migrants by five years(i.e., to mid period) in order to estimate the total volume of the net migration during the period in the cohort.

$$NSM = \{NSM(i+2,2)*[2/(1+S(i))]\}$$

This implies that internal migration in a cohort occurs half way through the period and that cohort deaths are equally distributed between the first and second halves.

5). To estimate migrants into the initial age-groups the following procedure was used [Nanda A K (1992)].

$$NM(i,2) = {}^{10}NM_0$$

$$= {}^{5}NM_0 + {}^{5}NM_5$$

$$= (1/4 * CWR_0 * {}^{30}NMF_{15}) + (3/4 * CWR_5 * {}^{30}NMF_{20})$$

Where:

CWR_0= (Children Aged 0-4)/(Female Aged 15-44) in the second census. and

CWR_5= (Children Aged 5-9)/(Female Aged 20-49) in the second census.

NMF= Net Migration of Females.

Net Migration of females in the age group 15-44 and 20-49 was directly taken from step 4.

Limitations of this Method:

However, this method is not without limitations. Firstly, net migration includes international migration. So to that extent it will over estimate the net migration. Secondly, the survival rates will also get effected by the international migration. Thirdly, it assumes that survival rates are same both in rural and urban areas. This assumption will affect net migration and natural increase of population. Fourthly, it assumes that same survival rates for higher ages where one can expect a higher mortality rates among higher age group and this method does not account for the differences in survival rates of the population. Another limitation is the age misstatement and census omissions.

The other method is to calculate the natural growth rate of population using the deaths and births statistics provided by census and then deduct the natural growth rate from the intensive component to get the net migration component. The registers of births and deaths are not systematic even in urban areas in India. This may give an inflated figure for net migration. Also, we need information about births and deaths at the district level. However, this information is not provided at district level by the Census. Hence, the inter censal cohort survival method is used.

Migration and Unstable Pattern of Urbanisation in Andhra Pradesh:

Here we try to analyze the role of migration in urbanisation pattern. From Tables 3.1 and 3.2 we can observe that natural increase component is the dominant source of urban growth. Nearly 60 to 70 percent of urban growth was contributed by the natural growth rate of population in Andhra Pradesh and Net Migration had contributed between 20 to 40 percent of urban growth during 1961-91. However, the natural growth rate differs significantly between regions. Compared to the districts of Central Coastal Andhra and Rayalaseema the Telangana districts had higher natural growth rate of population. However, the natural growth rate in turn depends on migration and their age structure. Does the high natural growth rate in Telangana districts reflect high rural to urban migration?.

Between 1961 and 1971 the districts of Visakhapatnam, Chittoor, Cuddapah, Anantapur and Karimnagar had high component of Net migration. Net Migration component was negative in the case of Guntur, Nellore, Kurnool, Adilabad and Nalgonda districts. The

first three had a negative net migration component mainly because during the formation of Prakasam district some parts of these districts were transferred to the former. So they had a negative net migration component. In the districts of Adilabad and Nalgonda, the reason could be an out-migration from these districts to the neighbouring districts or an urban-rural migration in that district. In rest of the districts the net migration component was very low (below 10). In terms of percentage contribution it was only in Rayalaseema districts that net migration had contributed above 40% of total urban growth. In the Telangana region only Warangal district had a 60% contribution of net migration. However, warangal had a low urban growth. The rest had low percentage contribution of migration to urban growth.

In the decade of seventies the percentage contribution of net migration was higher in most of the districts in Andhra Pradesh compared to sixties. However, the natural increase had a higher contribution to urban growth compared to net migration. Between 1971 and 1981, Hyderabad district had a negative contribution of net migration. This was mainly because of transfer of some urban places to the newly formed Ranga Reddy district.

Districts which had high urban growth i.e., Prakasam, Nellore, Cuddapah, Medak, Karimnagar, Khammam and Nalgonda had a high net migration. As compared to highly developed districts of Central Coastal Andhra and Visakhapatnam in Northern Coastal Andhra, of Hyderabad and Ranga Reddy districts in Telangana, the relatively backward districts had higher share of net migration to urban growth. These districts have higher percentage of extensive

component also. This implies that new towns in these districts might have emerged through migration from rural areas. Thus we can say that migration played an important role in the emergence of new towns in these districts. Along with a high net migration and emergence of new towns, these districts have high urban growth in seventies. Districts which had low urban growth had low net migration component compared to the other districts.

For the decade 1981-91 we could not calculate net migration directly as information regrading age distribution of population is not yet available. So, alternatively we assumed that 1971-81 natural growth rate of population trend was continuing in the decade 1981-91 also. From the decade of 1981-91 we can observe that most of the districts had low contribution of net migration. This implies that net migration declined in the state during the period 1981-91 as compared to previous decade. In this decade, there is no correspondence between higher urban growth and higher net migration, higher emergence of new towns component and high net migration. Some districts which had high urban growth and high extensive component had a negative contribution of net migration. We have already pointed out that between 1981-91 the extensive component had taken place only around few urban agglomerations. Very few isolated towns emerged in this decade. From this we can infer that migration had taken a new turn in 1980s. That is, migration was directed more and more towards class-I towns and urban agglomerations leading to expansion of these urban agglomerations and emergence of new towns around them.

Regional Level Analysis:

Now let us move on to a regional level analysis. From Tables 3.1
and 3.2 we can observe the following trends:

(a) During the decade of 1961-71, nearly 50 to 60 percent of total
urban growth was contributed by natural increase of population
alone and Net Migration had contributed only 20 to 40 percent of
urban growth and the rest was by new and declassified towns.
However, these components and their shares in urban growth differed
between the regions. Contribution of natural increase of population
was highest in Coastal Andhra and Telangana districts followed by
Rayalaseema. The contribution of net migration to urban growth was
the highest in Rayalaseema (57%) followed by Coastal Andhra(25%)
and Telangana(22%). Contribution of new and declassified towns was
positive in Coastal Andhra Pradesh(12%) and Telangana(5%). In
Rayalaseema it was negative(-24%).

(b) During seventies contribution of natural increase was above 50
percent in all the three regions [Telangana(61%), Coastal
Andhra(53%) and Rayalaseema(52%)]. However, the contribution of net
migration was high during 70s as compared to Sixties. Net migration
was highest in Coastal Andhra(40%) followed by Rayalaseema(34%) and
Telangana(29%).

(c) During eighties the contribution of natural increase of
population had increased in all the regions. This was mainly
because we assumed that the natural growth rate population of 70s
was continuing in 80s also. But the urban growth had declined in

80s. Hence the contribution of Natural Growth rated had shown a very high level and net migration a very low level(20%). But we can conclude that as compared to Seventies Net Migration had declined during 80s in Andhra Pradesh. Net migration was highest in Telangana (22%) followed by Rayalaseema (19%) and Coastal Andhra (16%) i.e.,15 percent and above in all regions but lower than previous decade.

Sub-Regional Analysis:

At sub-regional levels one can observe the following trends:

(a) During sixties, except Central Coastal Andhra Southern Coastal Andhra all the other sub-regions had high percentage shares of new and declassified towns accompanied by high percentage shares of net migration. However, in Southern Coastal Andhra the opposite case was observed. From this we can infer that a high footlooseness of population had resulted in a situation where high net migration was accompanied by higher emergence and declassification of towns. In the South Coastal Andhra the reason for instability could be different from footlooseness.

(b) In Central Coastal Andhra where stable pattern was observed no clear trend can be seen. However, here both net migration and natural increase played an equally important role in urban growth till 1981. However, in the decade 1981-91 contribution of net migration to urban growth had declined. The low net migration could be the major reason for its low urban growth compared to any other region. since it is an agriculturally developed region it is interesting to see why the net migration was low in the region. This aspect will be further looked into in the subsequent analysis.

(c) During seventies and eighties we can observe a different pattern in all sub-regions. Though in Southern Coastal Andhra (during seventies and eighties), Rayalaseema and Telangana-II we can observe a declassification component but the magnitude is very low compared to extensive component and also compared to sixties the declassification component was very low. It indicates that these sub-regions shed their unstable pattern of sixties and entered a phase of rapid urbanisation during seventies and eighties.

(d) Especially during eighties we can observe a high net migration component along with a high extensive component in North Coastal Andhra and Telangana-I. Thus we can infer that the high rural-urban migration led to expansion of the hyderabad and visakhapatnam urban agglomerations.

From the above analysis we can draw the following broad conclusions.

(i) Natural growth of population was the dominant source of urban growth in Andhra Pradesh contributing nearly 50 to 70 percent of urban growth between 1961 and 1991 in almost all districts. This high natural growth rate had regional dimension also. Natural growth rate was highest in Telangana as compared to Coastal Andhra and Rayalaseema.

(ii) Net migration contributed below 40 percent of the urban growth in the state with highest contribution during the decade of 1971-81. The rest was contributed by the net of new and declassified

towns. The net migration, though low it had contributed significantly to higher urban growth in certain regions (Telangana-II, South Coastal Andhra).

(iii) Higher percentage share of new towns in urban growth was mainly in those districts where high urban growth was accompanied by high percentage share of net migration though low (below 40 percent) had contributed to the emergence of new towns in many of the regions especially South Coastal Andhra and Telangana-II regions.

(iv) Net migration had played a significant role during sixties in unstable pattern in Andhra Pradesh. During seventies the percentage of net migration had increased but the unstable pattern was relatively higher as compared to seventies. But as compared to sixties the net migration was higher and unstable pattern was lower during eighties.

Net Migration:

Now we will move on to a more detailed analysis of net migration. Net migration is further decomposed into internal and external (within and outside the geographical area, say a district) net migration. Each component is further decomposed into in-migration and out-migration.

When we classify in-migrants and out migrant into internal and external categories, the following patterns(Tables 3.3& 3.4) can be observed:

Out-migration was mostly to external areas i.e., to outside the district. Whereas the in-migration was equally from within and outside the districts. In almost all districts percentage of internal migration had increased between 1961-81. The in and out-migration streams were increasingly becoming internal i.e., within the district.

In the districts of Telangana and Rayalaseema internal in-migration and out-migration was very low and external in and out-migration was very high. In Coastal Andhra internal in-migration was shared equally within and 'outside' districts. But out-migration was mostly to outside districts. However, over the years out-migration to distant districts was declining. Thus in almost all districts net migration to outside districts was negative. This implies that there was a considerable out-migration from each district to other districts. However, the exceptions are Guntur(1961-71), Prakasam(1971-81), Nellore, Chittoor, Anantapur, Hyderabad, Adilabad, Warangal and Nalgonda(1981-91). These districts had high immigration from other districts and low out-migration to other districts.

Earlier, we observed that in almost all the districts, in-migration into urban areas of a district are from outside i.e., external migrants. However, we also observed that over the years, the share of internal migration was increasing as a percentage of total in-migration. Still, more than half of migrants to urban areas were from outside the district. That is inter-district migration was the dominant source of in-migration to urban areas, compared to intra-districts migration. Now we will look into the inter-district migration.

Inter District Migration:

Tables 3.5 to 3.7 show the migration streams from neighbouring districts and also the percentage of each migration stream in total in-migration to districts from within the state. That is out of total in-migration, to urban area of a district, the share of in-migrants from neighbouring or bordering districts. The same information was given for out-migration from each district to others. This information is significant because we observed earlier that most of the districts were net out-migrants to other districts i.e., external net out-migration. With this information we can examine whether this was of short distance or long distance migration. However, we have the required inter-district migration only for 1981. Hence, it reflects only the migration patterns during seventies.

(a) Nearly 60 to 80 percent of total in-migration was from the neighbouring districts. However, exceptions to this are Vijayanagaram, Visakhapatnam, Nellore and Hyderabad districts which had only 30 to 40 percent of total in-migration from neighbouring districts. In the case of visakhapatnam and hyderabad it could be because of the presence of two strong Urban Agglomerations that were attracting migrants from other parts of state. In these two, Hyderabad district was attracting in-migrants from all over the state. It had nearly 40 percent of in-migrants from the neighbouring districts and the rest from other districts. It had its influence on all parts of the state and even outside the state. Also, given its magnitude of in-migration the 40 percent in-migrants from its neighbouring districts is significant for them.

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Thus the two urban agglomerations were attracting migrants from neighbouring districts led to low emergence of towns, low urban growth in the surrounding districts as well. Though this pattern seems to be true of with Visakhapatnam urban agglomeration, the surrounding districts of hyderabad, however, had high urban growth.

(b) If we look at out-migration, nearly 60-90 percent of it was only to the neighbouring districts. This was especially so in the case of Ranga Reddy, Medak, Nalgonda where out-migration to neighbouring districts constitute nearly above 90 percent. This could be because of Hyderabad Urban Agglomeration which is attracting most of the out-migrants from these districts. Interestingly Hyderabad had an equal amount of out-migrants to the neighbouring districts ie., equivalent to in-migration from them. Thus out-migration from the surrounding districts of Hyderabad and in-migration from hyderabad to the surrounding districts provides the answer for high urban growth with high degree of instability in the region and in neighbouring districts of hyderabad. That is the high rural-urban and urban-urban out-migration in these districts result in declassification of towns and the urban to urban and urban to rural migration from hyderabad to them result in emergence of new towns in these districts and high urban growth in the existing towns. Thus, the whole region show high degree of instability with high urban growth.

(c) In the districts of Central Coastal Andhra 90 percent of the in-migration was from neighbouring districts. The in-migration streams are rural to rural (40 %) rural to urban (20-30%) and

urban-Urban (10 to 15 %). However, only 50 to 65 percent out-migration from the districts of Central Coastal Andhra was to neighbouring districts and the rest was to non-neighbouring districts. Thus these districts had positive net migration with neighbouring districts and negative net migration with the rest of districts. That means there is considerable out-migration from this region to non-neighbouring districts of the state. This out-migration is significantly rural-rural and rural-urban migration stream. Thus the districts of Central Coastal Andhra had more out-migration than in-migration in all the districts except krishna which have positive net migration but very low.

Thus from Central Coastal Andhra we can observe two trends. One is that from the Krishna and Guntur districts people were migrating mostly to Hyderabad district. Though from East and West Godavari districts we can observe migration to Hyderabad district, we can also observe an equal amount of migration to Nizamabad, Adilabad and Khammam districts. However, migration to Hyderabad was mainly in the urban-urban and rural-urban streams, migration to other district was mainly rural-rural stream. This was especially from Godavari districts.

In-migrants to Central Coastal Andhra were mainly from Coastal Andhra districts and from Nalgonda and Khammam districts of Telangana region. This was mainly rural-rural and rural-urban streams. Among the Central Coastal Andhra districts Krishna and Guntur were attracting migrants to rural and urban areas equally. However in Godavari districts the in-migration is mostly to rural areas. Thus, in this region the Godavari districts were attracting

migrants to rural areas, both from Coastal Andhra and Khammam and Nalgonda districts of Telangana region. They also had an equal amount of out-migration from rural areas. Thus, the presence of two strong urban agglomerations i.e., Vijayawada and Visakhapatnam and also Hyderabad Urban Agglomeration led to urban-urban and rural-urban migrations from these districts. Hence, these districts were left with only small amount of migrants to urban areas from within.

The net out-migration from Central Coastal Andhra region, the dominant rural-rural in-migration stream from the other districts and out migration, may be of peasant migration type which led to lower contribution of net migration and lower urban growth compared to other sub-regions in the state. Thus, the high employment generation from this region, and negative net migration explain the reason for low rural-urban migration and hence urban growth in Central Coastal Andhra.

(d) The highest negative net out-migration to the distant districts was from East Godavari, Guntur, Prakasam, Srikakulam districts. The highest positive net migration was in Hyderabad Ranga Reedy, Nizamabad, Khammam and Adilabad districts. Almost all the districts in Telangana except Mahbubnagar and warangal had positive net in-migration from non-neighbouring districts. In the case of neighbouring districts negative net migration was found in most of the districts except Visakhapatnam, Krishna in Coastal Andhra region; Chittoor, Anantapur, and Kurnool in Rayalaseema region; Ranga Reddy, Nizamabad, Hyderabad, Adilabad and Khammam in Telangana region. This could be because of high in-migration from all the districts in Coastal Andhra to Krishna and Visakhapatnam

for Coastal Andhra; from the districts of Southern Coastal Andhra and some districts of Rayalaseema to Kurnool and Chittoor for Rayalaseema districts; and from both Coastal Andhra and Rayalaseema districts to districts in Telangana region for Telangana Districts.

(e) In the case of Northern Coastal Andhra, Visakhapatnam was attracting in-migration to urban areas, from Srikakulam, Vijayanagaram, East and West Godavari districts and also from krishna and Guntur districts. Most of the migration was rural-urban and urban-urban streams. It had low out-migration from Visakhapatnam district. This out-migration, though of low magnitude was rural-rural and urban-urban stream. Thus, the presence of Visakhapatnam Urban Agglomeration led to strong in-migration from neighbouring districts to Visakhapatnam district. This also contributed to low net migration component in urban growth of Godavari districts and in Srikakulam and Vijayanagaram districts. From neighbouring districts it was attracting rural-urban and urban-urban migration streams and from distant district of Coastal Andhra it was attracting urban-urban migrants resulting in high urban-urban migration stream. In this region Srikakulam and Vijayanagaram districts are out-migrants from rural as well as urban areas. Hence, these districts have low contribution of net migration, from external areas, to urban growth. However, due to the fact that Visakhapatnam district had a high net migration contribution, the entire region had a high net migration contribution to urban growth. Thus the strong pull from urban areas of Visakhapatnam district, which attracted migrants equally from rural and urban areas in the region led to low urban growth in the region except in the vicinity of Visakhapatnam urban agglomeration.

(f) In the Southern Coastal Andhra and Rayalaseema regions, in and out-migration was mainly to surrounding districts. In-migration was mainly rural-urban and urban-urban stream. Out-migration was urban-urban type. Except Cuddapah and Anantapur districts, all the other districts had external out-migration either to Central Coastal Andhra districts or to Hyderabad districts or to both. This was mainly from within the region and surrounding districts. Out-migration was also found to Nizamabad and Khammam districts. This was mainly rural-rural stream. Though no clear trend is coming out in the region, the districts of Kurnool and Chittoor which were attracting migrants to their urban areas had low out-migration compared to in-migration.

(g) In the Telangana-II region, Khammam, Nizamabad and Adilabad districts had high in-migration to urban areas. This in-migration is mostly rural-urban migration stream. Out-migration was highest in Warangal and Karimnagar Districts (both urban-urban in the later and urban-rural in the former). In the whole state Hyderabad, districts of Central Costal Andhra and Warangal and Karimnagar districts had high urban-rural out-migration to surrounding districts. Krimnagar and Warangal had low net migration from surrounding districts (negative in the case of later) and high net migration from non-neighbouring districts. This implies that this region is receiving migrants from all regions in the state, especially urban-rural type from Telangana-I and rural-rural from Coastal Andhra and Rayalaseema regions. In-migration to urban areas is mainly from neighbouring districts in the regions itself. Out of the total migrants (rural and urban including) Warangal and Karimnagar have negative net migration and the others have positive

net migration. We can observe the same trend even when in and out-migration from all the districts is considered. Thus, in Telangana-II, Nizamabad, Adilabad and Khammam had high in-migration from all parts of the state. This was especially rural to rural type followed by urban to rural type. This implies that rural areas in these three districts were exerting a considerable pull from rural areas of the rest of the state.

From the above patterns we can observe that there was a considerable in and out-migration across the districts. To understand these changes one has to look into the changes in rural and urban areas in all parts of the state and we have to find out the crucial factors that were pulling migrants from the sending region and the reason for out-migration both from urban and rural areas to receiving regions.

To sum up, the natural growth rate of population which had accounted for 50 to 60 percent of urban growth was the major source of urban growth in Andhra Pradesh. Net Migration had contributed only 40 percent of urban growth and the rest was contributed by the net of new and declassified towns. The differences in urban growth across the regions can partly be explained by the differences in natural growth rate of population in urban areas of the respective regions. the natural growth rate was higher in Telangana region as compared to Coastal Andhra and Rayalaseema regions. However, as compared to sixties the net migration during seventies was higher. The nature of migration, 'stable' and 'unstable' and the reasons thereof, were different between the sixties and seventies. This was evident from the presence o high net migration with higher declassification and

emergence of new towns during sixties and a low or negligible declassification and high emergence of towns during the seventies. This was especially so in Telangana-II and South Coastal Andhra. Also, the low net migration explains the low urban growth and hence lower rate of urbanisation in Central Coastal Andhra. During eighties we can observe that net migration had declined as compared to seventies in all the regions and sub-regions of the state.

Though there was a higher level of inter-district migration as compared to intra-district migration, especially to urban areas, between 1961-81 the contribution of the former had increased and that of the later had declined as a percentage of in-migration to urban areas. However, the inter-district migration was the dominant source of migration to urban areas with nearly 60-80 percent of the total in and out-migration was from the neighbouring districts.

In Telangana-I, Hyderabad Urban Agglomeration being the state capital had attracted migrants form all over the state. Also nearly 40 percent of migrants to Hyderabad are from neighbouring districts. This in-migration was mainly through rural to urban and urban to urban. Also there was an equal amount of out-migration from Hyderabad to neighbouring districts. This explains the reason for instability in this region and North Coastal Andhra regions had attracted migrants not only from neighbouring districts but also from non-neighbouring districts.

In North Coastal Andhra due to high migration from rural and urban areas of Srikakulam and Vizianagaram to the Visakhapatnam Urban Agglomeration the respective districts had a lower net migration

and urban growth but the entire region had high contribution of migration and hence high urban growth.

The Central Coastal Andhra had a high in-migration to rural areas from the neighbouring districts. Also, we find a very high peasant migration from central Coastal Andhra to Telangana-II region. The highest in-migration to rural areas and peasant out-migration had led to low rural to urban migration and hence lower urban growth in Central Coastal Andhra.

The rural areas of Telangana-II and South Coastal Andhra were attracting migrants from Central Coastal Andhra and Rayalaseema regions. The rural areas of the region were attracting migrants from the distant districts. This suggests that the region was undergoing some changes in rural areas and hence these changes may have had a greater bearing on the urbanisation patterns of this region.

Changes in rural and urban areas at regional and sub-regional levels gives important clues to the patterns of urbanisation in Andhra Pradesh. In the subsequent chapter we will analyze the changes that were occurring in rural and urban areas with special emphasis on the development process and their manifestations in the structural changes in output and employment, changes in rural and urban areas and also changes in industrial and agricultural sector etc.

Table 3.1:COMPONENTS OF URBAN GROWTH IN DISTRICTS AND REGIONS OF ANDHRA PRADESH (1961-91)

District/State	1961-71					1971-81					1981-91				
	R	Re	NMi	Ni	Rd	R	Re	NMi	Ni	Rd	R	Re	NMi	Ni	Rd
Srikakulam	35	20	6	13	4	-23	0	-44	21	0	36	0	15	21	0
Vizianagaram	—	—	—	—	—	—	—	—	—	—	26	0	8	21	3
Visakhapatnam	51	13	13	28	2	29	0	7	21	0	62	28	13	21	0
East Godavari	23	5	5	19	6	39	5	12	21	0	31	1	10	21	0
West Godavari	34	5	8	22	2	42	4	16	22	0	22	0	3	22	3
Krishna	39	9	7	23	0	46	2	18	26	0	34	9	-1	26	0
Guntur	13	3	-7	22	4	33	0	9	24	0	25	0	1	24	0
Prakasam	—	—	—	—	—	64	16	30	25	6	30	8	4	25	7
Nellore	13	0	-8	22	0	65	4	31	30	0	36	2	4	30	0
Chittoor	40	3	18	22	4	50	0	25	26	0	40	0	14	26	0
Cuddapah	26	7	12	17	9	67	18	20	29	0	46	22	-0	29	5
Anantapur	22	0	14	17	9	41	0	20	21	0	41	0	20	21	0
Kurnool	10	8	-6	22	14	47	5	15	27	0	30	10	-3	27	3
Mahbubnagar	9	2	4	20	17	54	0	22	32	0	28	0	-4	32	0
Ranga Reddy	—	—	—	—	—	—	—	—	—	—	220	103	80	38	0
Hyderabad	43	2	5	37	0	23	1	-15	38	0	39	0	2	38	0
Medak	32	17	7	23	15	73	16	22	35	0	52	21	-0	35	4
Nizamabad	41	7	5	33	4	54	5	13	36	0	28	0	-4	36	3
Adilabad	31	27	-11	30	15	55	3	18	33	0	52	11	9	33	0
Karimnagar	84	34	17	33	0	83	10	34	39	0	62	0	29	39	5
Warangal	15	0	9	19	13	58	0	30	28	0	38	2	8	28	0
Khammam	45	14	1	30	0	60	2	24	34	0	51	22	-5	34	0
Nalgonda	-17	7	-20	12	16	113	32	39	42	0	30	0	-6	42	6
Andhra Pradesh	34	6	9	23	5	49	4	17	27	0	43	8	9	27	1
Coastal Andhra	37	7	9	23	3	44	3	18	23	0	35	7	6	23	1
Northern C Andhra	46	15	13	21	3	45	1	21	23	0	50	17	10	23	1
Central C Andhra	26	5	10	14	3	40	2	16	21	0	29	3	5	21	1
Southern C Andhra	109	0	26	83	0	65	9	31	27	3	33	5	5	27	3
Rayalaseema	22	4	13	15	10	49	4	19	26	0	38	7	7	26	2
Telangana	36	7	8	26	5	54	5	15	33	0	54	11	12	33	1
Telangana I	34	3	9	26	4	50	6	11	33	0	59	13	13	33	1
Telangana II	39	14	4	28	7	62	4	24	34	0	46	6	8	34	2

Note:1. R, Re, NMi, Rd, and Ni stand for Urban Growth, Extensive Component, Net Migration component, Declassification Component, and Natural Increase Component respectively.

3. Information on the districts of Prakasam, Vizianagaram and Ranga Reddy does not exist because they were formed in 1971 and 1981 censuses respectively.

Sources:
Census of India(1971,1981): General Population Tables, Series-2, Part II-A, Andhra Pradesh.
Census of India(1991):Provisional Population Totals:Rural-Urban Distribution, Paper-2 of 1991.
Census of India(1961):Cultural and Migration Tables, Part II-c Volume-II, Andhra Pradesh.
Census of India(1971):Social and Cultural population Tables, Part II-C(i) Series 2, Andhra Pradesh.
Census of India(1981):Social and Cultural population Tables, Part II-A Series 2, Andhra Pradesh.

Table No 3.2: Percentage shares of Components in Total Urban Growth of
Districts and Regions and sub-regions of Andhra Pradesh (1961-91)

District/State	1961-71					1971-81					1981-91				
	R	Re	NMi	Ni	Rd	R	Re	NMi	Ni	Rd	R	Re	NMi	Ni	Rd
Srikakulam	35	57	18	38	13	-23	0	195	-95	0	36	0	40	60	0
Vizianagaram	—	—	—	—	—	—	—	—	—	—	26	0	29	81	3
Visakhapatanam	51	25	24	55	5	29	0	26	74	0	62	28	21	34	0
East godavari	23	21	21	84	26	39	12	32	56	0	31	1	30	68	0
West godavari	34	16	23	66	5	42	10	37	53	0	22	0	12	101	3
Krishna	39	24	19	58	0	46	4	39	57	0	34	9	-3	78	0
Guntur	13	21	-56	162	27	33	0	27	73	0	25	0	5	95	0
Prakasam	—	—	—	—	—	64	25	46	38	9	30	8	14	82	7
Nellore	13	0	-60	160	0	65	6	48	46	0	36	2	11	83	0
Chittoor	40	7	46	56	9	50	0	49	51	0	40	0	35	65	0
Cuddapah	26	25	45	66	36	67	27	30	43	0	46	22	-0	64	5
Anantapur	22	0	63	78	41	41	0	49	51	0	41	0	48	51	0
Kurnool	10	79	-63	223	140	47	10	32	58	0	30	10	-11	88	3
Mahbubnagar	9	23	43	234	200	54	0	41	59	0	28	0	-14	114	0
Ranga Reddy	—	—	—	—	—	—	—	—	—	—	220	47	36	17	0
Hyderabad	43	5	11	85	0	23	2	-66	164	0	39	0	4	96	0
Medak	32	53	22	73	48	73	23	30	47	0	52	21	-0	67	4
Nizamabad	41	18	13	80	11	54	9	25	66	0	28	0	-16	127	3
Adilabad	31	86	-34	96	48	55	6	33	61	0	52	11	17	64	0
Karimnagar	84	40	21	39	0	83	12	41	47	0	62	0	46	63	5
Warangal	15	0	60	121	82	58	0	51	49	0	38	2	21	75	0
Khammam	45	32	2	67	0	60	4	40	56	0	51	22	-9	66	0
Nalgonda	-17	-39	118	-73	-93	113	28	35	37	0	30	0	-21	139	6
Andhra pradesh	34	19	28	67	14	49	8	36	56	0	43	8	20	63	1
Coastal Andhra	37	19	25	63	7	44	7	41	53	1	35	7	16	68	1
Northern C Andhra	46	33	28	45	7	45	2	46	52	0	50	17	20	47	1
Central C Andhra	26	21	38	53	12	40	6	40	54	0	29	3	18	75	1
Southern C Andhra	109	0	24	76	0	65	15	48	42	4	33	5	14	81	3
Rayalaseema	22	19	57	66	43	49	9	39	52	0	38	7	19	67	2
Telangana	36	19	22	74	14	54	10	29	61	0	54	11	22	60	1
Telangana I	34	9	27	75	12	50	12	22	66	0	59	13	23	56	1
Telangana II	39	37	11	71	19	62	7	39	54	0	46	6	18	73	2

Note: Same as Table No 3.1.
Source:Same as Table No 3.1

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Table No 3.3: Migration to urban Areas of the Districts and the state (Figures are in Thousands)

District/State	In-migration to Urban Areas						Out-migration from Urban Areas						Net migration to urban Areas					
	Total		Internal		External		Total		Internal		External		Total		Internal		external	
	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981
Srikakulam	88	73	54	46	34	27	74	195	23	17	51	177	13	-122	31	28	-18	-150
Vizianagaram	0	94	0	40	0	54	0	94	0	14	0	80	0	0	0	26	0	-26
Visakhapatanam	285	327	99	106	186	222	233	281	27	25	206	256	52	46	72	80	-21	-34
East godavari	319	324	125	188	194	136	295	251	71	81	224	170	23	73	54	107	-30	-33
West godavari	251	271	88	137	162	134	226	205	51	56	175	149	25	66	37	81	-13	-15
Krishna	353	431	136	195	217	236	317	309	43	50	275	259	36	122	93	145	-57	-23
Guntur	351	342	174	200	177	141	397	278	43	56	355	222	-46	63	132	144	-178	-81
Prakasam	116	131	46	79	70	52	116	68	18	23	98	45	0	63	28	56	-28	7
Nellore	134	155	54	86	81	69	152	76	26	29	126	47	-18	78	27	57	-45	21
Chittoor	184	184	55	85	129	100	143	109	40	30	104	79	41	76	15	55	25	21
Cuddapah	92	134	50	89	42	44	71	88	13	21	58	67	21	46	37	68	-15	-23
Anantapur	159	168	65	93	94	75	116	92	25	27	92	64	43	76	40	66	3	10
Kurnool	166	169	62	94	104	75	188	108	23	32	165	77	-22	61	39	63	-61	-2
Mahbubnagar	79	89	36	60	43	29	73	51	15	19	58	32	6	39	21	41	-15	-3
Ranga Reddy	0	175	0	29	0	146	0	175	0	6	0	169	0	0	0	23	0	-23
Hyderabad	457	430	30	0	427	430	399	710	26	0	373	710	58	-280	5	0	54	-280
Medak	71	84	23	43	48	41	64	56	10	13	54	44	7	28	13	30	-6	-2
Nizamabad	119	119	27	45	92	75	111	91	15	13	97	78	8	28	12	31	-5	-3
Adilabad	109	128	24	37	85	91	126	91	4	60	122	31	-17	37	20	-23	-37	60
Karimnagar	116	155	55	105	62	49	97	84	21	18	76	66	20	71	34	88	-14	-17
Warangal	98	119	36	61	62	58	78	45	20	28	58	17	20	74	17	33	3	41
Khammam	112	133	24	45	88	88	111	89	10	15	101	73	1	44	14	30	-13	14
Nalgonda	88	117	30	71	58	46	118	70	17	19	101	50	-29	48	13	52	-43	-4
Andhra pradesh	2444	3560	1295	3076	1149	485	1856	2109	768	951	1087	1158	589	1451	527	2124	62	-673

Note:
(i) Same as Table 3.1
(ii) Since the 1991 census migration data are not available we could not calculate the in-migration and out-migration and net migration.
Source:Same as Table 3.1

Table No 3.4: Percent of Internal and External Migration in Total migration to urban Areas of Districts and state

Districts/ Regions/ State	In-migration to Urban Areas				Out-migration from urban Area				Net Migration to urban Areas			
	Internal		External		Internal		External		Internal		External	
	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981	1961 to 1971	1971 to 1981
Srikakulam	62	63	38	37	31	9	69	91	237	-23	-137	123
Vizianagaram	--	42	--	58	--	15	--	85	--	--	--	--
Visakhapatnam	35	32	65	68	12	9	88	91	140	174	-40	-74
East Godavari	39	58	61	42	24	32	76	68	230	145	-130	-45
West Godavari	35	50	65	50	23	27	77	73	152	123	-52	-23
Krishna	38	45	62	55	13	16	87	84	261	119	-161	-19
Guntur	50	59	50	41	11	20	89	80	-284	227	384	-127
Prakasam	40	60	60	40	16	33	84	67	--	89	--	11
Nellore	40	56	60	44	17	38	83	62	-150	73	250	27
Chittoor	30	46	70	54	28	28	72	72	38	72	62	28
Cuddapah	54	67	46	33	19	24	81	76	173	150	-73	-50
Anantapur	41	55	59	45	21	30	79	70	94	86	6	14
Kurnool	38	56	62	44	12	29	88	71	-176	103	276	-3
Mahbubnagar	46	68	54	32	21	38	79	62	355	107	-255	-7
Ranga Reddy	--	16	--	84	--	3	--	97	--	--	--	--
Hyderabad	7	0	93	100	6	0	94	100	8	0	92	100
Medak	32	51	68	49	16	23	84	77	191	108	-91	-8
Nizamabad	23	37	77	63	13	14	87	86	160	112	-60	-12
Adilabad	22	29	78	71	3	66	97	34	-122	-61	222	161
Karimnagar	47	68	53	32	21	21	79	79	173	124	-73	-24
Warangal	37	51	63	49	25	62	75	38	83	45	17	55
Khammam	21	34	79	66	9	17	91	83	1305	68	1205	32
Nalgonda	34	61	66	39	14	27	86	73	-45	109	145	-9
Andhra Pradesh	53	86	47	14	41	45	59	55	89	146	11	-46

Note:Same as Table 3.1
 Source:Same as Table 3.1

Table 3.5: Migration Streams From Surrounding and distant districts. 1981 (Figures are in Thousands):

District/ State	Migration Streams From Sorrounding Districts											From All districts			From Rest of Districts			Sorrouning Districts for each district
	In-Migration				Out-Migration				Total			Migration			Migration			
	R-U	U-U	R-R	U-R	R-U	U-U	R-R	U-R	In	Out	Net	In	Out	Net	In	Out	Net	
Srikakulam	5	6	20	5	39	15	34	4	36	92	-56	49	161	-113	13	69	-57	Vizianagaram
Vizianagaram	19	12	5	2	24	21	39	7	39	90	-51	112	128	-17	73	38	35	Srikakulam Visakha
Visakhapatnam	47	41	45	12	7	9	24	7	145	47	98	271	176	95	126	129	-3	Viziangaram East Godavari
East Godavari	49	27	73	18	60	44	70	14	167	188	-21	228	340	-112	61	153	-91	Visakhapatnam Khammam West Godavari
West Godavari	35	30	107	19	51	33	96	23	192	203	-11	297	308	-11	105	105	0	East Godavari Khammam Krishna
Krishna	73	42	119	16	51	37	120	20	250	228	22	377	358	19	127	130	-3	West Godavari Khammam Guntur Nalgonda
Guntur	56	29	95	13	57	36	88	19	193	199	-6	263	336	-73	71	137	-67	Krishna Nalgonda Mahbubnagar Prakasam
Prakasam	19	17	64	17	57	16	75	9	115	158	-42	142	243	-101	27	85	-59	Guntur Nellore Cuddapah Kurbool Mahabub
Nellore	20	11	1	1	11	12	34	8	33	64	-31	108	121	-14	74	57	17	Prakasam Cuddapah Chittore
Chittoor	15	14	33	7	11	9	26	5	69	50	19	93	82	11	24	32	-8	Nellore Cuddapah Anantapur
Cuddapah	20	13	51	9	24	17	54	8	33	102	-9	99	122	-23	6	20	-13	Prakas Nellore Chittore Ananta Kurnool
Anantapur	21	16	33	4	13	13	38	8	75	73	2	94	90	3	19	17	2	Chittore Cuddapah Kurnool
Kurnool	28	14	52	7	22	14	39	8	101	82	18	134	119	15	33	36	-3	Prakasam Cuddapah Anantapur Mahabubnaga
Mahbubnagar	7	10	45	13	37	11	63	3	75	115	-40	87	144	-57	13	29	-16	Kurnool Prkasam Guntur Nalgond Ranga Hy
Ranga Reddy	29	35	91	33	22	5	47	2	187	76	112	264	79	185	76	3	73	Hyderabad Mahbubnagar Nalgonda Medak
Hyderabad	86	25	0	0	0	52	0	56	111	108	3	299	179	120	188	71	117	Rangaredd Mahbubnagar Nalgonda Medak
Medak	10	11	55	15	58	14	82	5	92	159	-67	113	164	-51	21	5	16	Rang. Hyd Nizam Karin Warangal Nalgond
Nizamabad	25	6	72	4	5	4	33	3	106	45	61	165	65	100	59	19	39	Medak Krainnagar Adilabad
Adilabad	35	6	40	3	7	4	26	4	85	40	44	125	50	75	40	10	31	Nizamabad Karinnagar
Karimnagar	14	8	65	9	54	9	102	5	96	171	-75	138	206	-68	42	35	7	Nizamabad Adilabad Medak Warangal
Warangal	17	5	84	5	27	12	97	27	112	163	-51	155	208	-53	44	45	-2	Karinnagar Medak Nalgonda Khammam
Khammam	39	17	107	12	13	6	69	13	175	101	74	231	119	112	57	18	38	Warangal Nalgonda Krishna E & W Godavar
Nalgonda	15	16	71	17	55	13	105	6	120	179	-59	148	192	-45	28	14	15	Krish Gunt Maha Ranga Hyd Med Waran Kha

Source: Census of India(1981): Migration Tables, Series-2, Part V-A&B, Andhr Pradesh.

Table 3.6: Percentage of Migration Streams From Sourrounding Districts in the state 1981.

District/State	Migration Streams From Sorrounding Districts										Sourrouning Districts for each district
	In-Migration				Out-Migration				Migration		
	R-U	U-U	R-R	U-R	R-U	U-U	R-R	U-R	In	Out	
Srikakulam	14	17	56	14	43	16	37	4	100	100	Vizianagaram
Vizianagaram	50	32	13	6	26	23	43	8	100	100	Srikakulam, Visakhapatnam
Visakhapatnam	32	28	31	8	14	20	52	14	100	100	Viziangaram, East Godavari
East Godavari	29	16	44	11	32	24	37	8	100	100	Visakhapatnam, Khammam, West Godavari
West Godavari	18	16	56	10	25	16	47	11	100	100	East Godavari, Khammam, Krishna
Krishna	29	17	47	6	22	16	53	9	100	100	West Godavari, Khammam, Guntur, Nalgonda
Guntur	29	15	49	7	29	18	44	9	100	100	Krishna, Nalgonda, Mahbubnagar,Prakasam
Prakasam	16	14	55	14	3	10	48	6	100	100	Guntur,Nellore,Cuddapah,Kurbool, Mahbubnagar
Nellore	59	33	4	4	17	19	53	12	100	100	Prakasam, Cuddapah, Chittore
Chittoor	22	21	48	10	21	18	52	9	100	100	Nellore, Cuddapah, Anantapur
Cuddapah	22	14	55	10	23	16	53	8	100	100	Prakasam, Nellore, Chittore, Anantapur, Kurnool
Anantapur	28	22	44	6	18	18	53	11	100	100	Chittore, Cuddapah, Kurnool
Kurnool	27	14	52	7	26	16	47	10	100	100	Prakasam Cuddapah Anantapur Mahbubnagar
Mahbubnagar	9	14	60	17	32	10	55	3	100	100	Kurnool, Prkasam, Guntur, Nalgonda, Rangareddy, Hyderabad
Ranga Reddy	15	19	49	17	29	6	61	3	100	100	Hyderabad, Mahbubnagar, Nalgonda, Medak
Hyderabad	78	22	0	0	0	48	0	52	100	100	Rangaredd, Mahbubnagar, Nalgonda, Medak
Medak	11	12	60	17	37	9	51	3	100	100	Rangareddy,Hderabad,Nizamabad,Karimnaga,Warangal, Nalgonda
Nizamabad	23	6	67	4	11	9	73	8	100	100	Medak, Krainagar, Adilabad
Adilabad	41	7	48	4	17	9	65	9	100	100	Nizamabad, Karimnagar,
Karimnagar	15	8	68	9	32	6	60	3	100	100	Nizamabad, Adilabad, Medak, Warangal
Warangal	16	4	76	4	17	7	59	17	100	100	Karimnagar, Medak, Nalgonda, Khammam
Khammam	23	10	61	7	12	6	69	12	100	100	Warangal, Nalgonda, Krishna, East Godavari, West Godavari
Nalgonda	13	13	60	14	31	7	59	3	100	100	Krishna Guntur Mahabub Rangar Hyderabad Medak Khammam and Warangal

Source: Census of India (1981): Migration Tables, Series-2, Part V-A&B Andhra Pradesh.

Table 3.7: Percentage of each migration streams in total in and out migration to the districts from within the state:1981

District State	Migration Streams From Neighbouring Districts in the state.										From Rest Districts in state		Sourrounding Districts for each district
	In-Migration				Out-Migration				Migration		Migration		
	R-U	U-U	R-R	U-R	R-U	U-U	R-R	U-R	In	Out	In	Out	
Srikakulam	10	13	42	10	3	4	13	3	74	57	26	43	Vizianagaram
Vizianagaram	17	11	4	2	15	10	4	2	35	70	65	30	Srikakulam, Visakhapanam
Visakhapatnam	17	15	17	4	27	23	26	7	53	27	47	73	Vizianagaram, East Godavari
East Godavari	21	12	32	8	14	8	21	5	73	55	27	45	Visakhapatnam, Khammam, West Godavari
West Godavari	12	10	36	6	11	10	35	6	65	66	35	34	East Godavari, Khammam, Krishna
Krishna	19	11	31	4	20	12	33	5	66	64	34	36	West Godavari, Khammam, Guntur, Nalgonda
Guntur	21	11	36	5	17	9	28	4	73	59	27	41	Krishna, Nalgonda, Mahbubnagar, Prakasam
Prakasam	13	12	45	12	8	7	26	7	81	65	19	35	Guntur, Nellore, Cuddapah, Kurnool, Mahbubnagar
Nellore	18	10	1	1	16	9	1	1	31	53	69	47	Prakasam, Cuddapah, Chittore
Chittoor	16	15	36	7	19	17	41	8	74	61	26	39	Nellore, Cuddapah, Anantapur
Cuddapah	20	13	51	9	17	11	42	7	94	84	6	16	Prakasam, Nellore, Chittore, Anantapur, Kurnool
Anantapur	23	17	35	5	24	18	36	5	80	81	20	19	Chittore, Cuddapah, Kurnool
Kurnool	21	10	39	5	23	11	44	6	75	69	25	31	Prakasam, Cuddapah, Anantapur, Mahbubnagar
Mahbubnagar	8	12	51	15	5	7	31	9	85	80	15	20	Kurnool Prkasam Guntur Nalgonda Rangareddy Hyderabad
Ranga Reddy	11	13	34	12	36	45	115	41	71	96	29	4	Hyderabad, Mahbubnagar, Nalgonda, Medak
Hyderabad	29	8	0	0	48	14	0	0	37	60	63	40	Rangaredd, Mahbubnagar, Nalgonda, Medak
Medak	9	10	49	14	6	7	34	9	81	97	19	3	Rangareddy Hyderabad Nizamabad Karimnagar Warangal Nalgona
Nizamabad	15	4	43	2	38	9	111	6	65	70	35	30	Medak, Karimnagar, Adilabad
Adilabad	28	5	32	2	70	12	81	6	68	81	32	19	Nizamabad, Karimnagar,
Karimnagar	10	6	47	6	7	4	32	4	70	83	30	17	Nizamabad, Adilabad, Medak, Warangal
Warangal	11	3	54	3	8	2	41	2	72	78	28	22	Karimnagar, Medak, nalgonda, Khammam
Khammam	17	7	46	5	33	14	90	10	75	85	25	15	Warangal, Nalgonda, Krishna, West Godavari, East Godavari
Nalgonda	10	11	48	12	8	8	37	9	81	93	19	7	Krishna Guntur Mahabub Ranga Hyderabad Medak Warangal Khamm

Source: Census of India(1981): Migration Tables, Series-2, Part V-A&B, Andhra Pradesh.

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CHAPTER IV

FACTORS UNDERLYING THE PATTERNS OF URBANIZATION IN ANDHRA PRADESH

Till now we have observed the patters of urbanization in Andhra Pradesh and their sources mainly through a decomposition of urban growth. In this chapter we shall try to provide an explanation for the observed patterns of urbanization.

Urbanization is one of the processes of structural change that an economy experiences during the course of development. While reviewing the broad structural changes that an economy experiences Syrquin observes that "the principal changes in the structure emphasised in the development literature are increases in the rates of accumulation (Rostow, Lewis); shifts in the sectoral composition of economic activity (industrialisation) focusing initially on the allocation of employment(Fisher, Clark) and later on production and factor use in general (Kuznets, Chenery); and changes in the location of economic activity (Urbanization) and other concomitant aspects of industrialisation (demographic transition and income distribution)" [Syrquin(1988, 206)]. These are all economy wide processes which are inter-related having a bearing on one another. Thus, we cannot isolate and see urbanization merely as an increase in the urban population in relation to total population. We have to view it as an outcome of the overall changes in the economy i.e., structural changes.

Here we try to relate urbanization with structural changes in output and employment, the development process that the state had gone through and its manifestations in different sectors. We examine here the two major aspects of the economy of the state viz., (i) Structure of Output and (ii) Structure of employment.

(i)   **Structure of Output:**

Tables 4.1 & 4.2 give information on Sectoral contribution to total state NDP(at 1970-71 prices) for the period 1960-61 to 1986-87. They give information on absolute and percentage contribution of primary, Secondary and Tertiary sectors to the state NDP and their annual growth rates. From these tables we can observe the following trends.

Table 4.1: Net State Domestic Product at Factor Cost By Industry of Origin in Andhra Pradesh [At (1970-71) Prices]

Years	Total Net Domestic Product (Rs Lakhs)	Per Capita Income (Rs)	Share in state NDP		
			Primary Sector	Secondary Sector	Tertiary Sector
1960-61	189181	530	62	11	28
1965-66	207002	527	57	14	29
1970-71	252278	585	57	13	29
1975-76	298296	625	55	14	31
1980-81	343217	647	48	16	36
1986-87	450954	758	38	20	42

Source: Chandhok H L and the Policy Group(1991): India Data Base, the Economy, Vol.I, LM Books, Bombay.

Table 4.2: Growth Rates of Components of the State NDP [At Constant (1970-71) Prices]

Categories	1960/61 To 1965/66	1965/66 To 1970/71	1970/71 To 1975/76	1975/76 To 1980/81	1960/61 To 1969/70	1970/71 To 1979/80	1980/81 To 1986/87
I.PRIMARY SECTOR	0.29	4.32	2.70	0.22	0.66	1.26	0.57
1.Agriculture	-0.00	4.56	2.59	0.26	0.57	1.18	0.41
2.Forestry and Logging	4.20	0.27	-2.10	-3.84	-1.63	-1.19	2.30
3.Fishing	9.63	-1.27	5.14	-2.01	3.91	2.26	0.01
4.Mining and Quarrying	11.00	1.18	12.52	2.88	7.89	9.83	9.94
II.SECONDARY SECTOR	8.09	3.94	4.94	6.38	5.97	5.93	8.31
1.Manufacturing	9.05	2.87	6.03	5.38	6.86	6.60	8.66
2.Construction	7.06	3.31	2.46	6.07	3.05	3.13	4.14
3.Electricity, Gass and Water Supply	-0.86	41.33	4.73	18.59	14.09	11.67	17.42
III.TERTIARY SECTOR	3.06	4.68	4.90	6.43	3.11	5.04	8.04
1.Transport, Storage and Communication	1.94	10.61	5.70	5.21	4.46	6.08	7.86
2.Trade, Hotels and Restaurant	3.55	4.41	3.65	4.22	3.01	3.00	0.57
3.Banking and Insurance	12.67	4.07	9.00	14.51	11.10	16.31	16.58
4.Real Estate Dwellings and Business Services	3.37	-5.10	3.83	14.78	-1.55	4.65	8.78
5.Public Administration	1.13	9.20	12.99	10.44	4.85	12.18	17.91
6.Other Services	1.85	7.47	2.22	2.76	4.04	2.34	12.65
(I-III).TOTAL STATE NDP	1.88	4.37	3.65	3.01	1.90	3.00	4.48
Per Capita State NDP	-0.11	2.20	1.37	0.70	0.08	0.79	2.45

Source: Chandhok H L and the Policy Group(1991): India DataBase, the Economy, Vol.I, LM Books, Bombay.

(a) The state NDP and per capita income had picked up during the late Seventies. Compared to a growth rate of 1.9 percent during Sixties the SDP grew at 3 and 4.4 percent during Seventies and Eighties. Per Capita SDP after stagnation till mid sixties grew at 0.79 and 2.1 percentages during seventies and eighties respectively.

(b) The acceleration in State NDP and per capita State NDP were mainly due to a better performance of secondary and tertiary sectors. This can be observed from structural changes in the economy of Andhra Pradesh, where the share of agricultural sector had declined gradually from 62 percent in 1960-61 to 38 percent in 1986-87. The share of the secondary sector had increased from 11 percent in 1960-61 to 20 percent in 1986-87. During the same period, the share of the tertiary sector has increased from 28 percent to 42 percent. Thus, from the above analysis we can observe that the share of primary sector had declined and the shares of the secondary and tertiary sectors had increased. However, the structural changes were sharper during Seventies and eighties especially for the secondary and tertiary sectors. These changes in the structure had taken place when the SDP had been increasing at a faster rate.

To sum up, the economy of Andhra Pradesh had picked up a momentum through changes in its structure when the shares of secondary and tertiary sectors in the State NDP had increased through a rapid development of manufacturing and service sectors.

(ii) Structure of Employment:

From these changes in the structure of output we will move on to changes in the structure of employment. Was there any shift in labour force absorption from agriculture to non-agriculture sectors?

Table 4.3: Structure of total Workforce in Andhra Pradesh:1961-91
(Absolute figures are in Lakhs)

Years	Total Population	Main Worker	I	II	III & IV	Va	Vb	VI	VII	VIII	IX	P	S	T
1961	360	187	75	53	6	18	5	2	6	2	17	134	25	28
1971	435	180	58	68	7	9	8	3	10	4	14	133	19	28
1981	535	226	74	83	7	11	12	3	13	6	17	164	26	36
1991	665	284	79	116	7	10	16	5	19	8	25	203	30	52
Percent:														
1961	360	100	40	29	3	10	3	1	4	1	9	72	13	15
1971	435	100	32	38	4	5	4	2	5	2	8	74	11	15
1981	535	100	33	37	3	5	5	1	6	3	7	72	11	16
1991	665	100	28	41	3	3	5	2	7	3	9	71	10	18
Growth:														
1961-71	2.1	-0.4	-2.3	2.8	2.3	-5.2	5.9	3.0	2.3	6.5	-1.9	-0.1	-2.4	0.0
1971-81	2.3	2.6	2.8	2.2	-0.3	2.2	6.1	1.3	3.7	5.5	1.9	2.3	3.6	3.1
1981-91	2.4	2.6	0.7	4.0	1.3	-1.0	2.8	4.6	4.1	3.1	4.9	2.4	1.5	4.3

Note: 1. The Nine industrial categories are:
I Cultivators; II Agricultural labourers; III Livestock, Forestry, Fishing, Hunting & plantations, Orchards and Allied Activities; IV Mining and Quarrying; V Manufacturing, Processing, Servicing and Repairs. Va Household Industry; Vb Other than Household Industry; VI Construction; VII Trade and Commerce; VIII Transport Storage and Communications; IX Other Services.

2.Primary Sector(P) includes Industrial Categories from I to IV, Secondary Sector(S) includes Va, Vb and VI, Tertiary Sector(T) includes the categories from VII to IX.

Source:
Census of India(1961): General Economic Tables, Part II-B(i) & (ii), Volume-2, Andhra Pradesh.

Census of India(1971): General Economic Tables, Part II-B, Series-2, Andhra Pradesh.

Census of India(1981): General Economic Tables, Part III-A,III-B, Series-2, Andhra Pradesh.

Census of India(1991): General Economic Tables, Part III-A,III-B Series-2, Andhra Pradesh.

From Table 4.3 we can observe that there were no major changes in the labour force absorption between 1961-1991. But some of the changes, though not in accordance with what normally one would expect from the structural changes in the output, deserve to be mentioned as they may have a greater bearing on the possible reasons for what we observed in urbanization patterns in Andhra Pradesh.

(a) Between 1961 and 1991 there was only a marginal fall in the population working in Primary sector i.e from 72 to 71 percent. What is more interesting is that nearly two thirds of the total workforce was dependent on agricultural sector which had remained more or less constant.

(b) In the Secondary sector the workforce had increased from 25 to 30 lakhs between 1961-91. In terms of the share in total work force, interestingly we find a decline in the share of secondary sector from 13 to 10 percents between 1961-91. From this we can deduce that the labour force absorption in secondary sector did not increase as compared to the increase in the total labour force in the state.

(c) The share of service sector had shown an improvement. It increased from 15 to 18 percent of the total workforce between 1961-91.

Thus, from the above analysis we can observe that the share of primary sector had remained more or less stagnant and that of secondary sector had declined and the share of tertiary sector had

increased. From the above table we can see that the growth rate of total workforce was high (2.6% before 1971-81 and 1981-91). Only the tertiary sector had a growth rate higher than the total workforce. Interestingly, the growth rate of workers was higher than that of the total population.

(a) The rise in the absolute size as well as rapid growth rate of agricultural labourers and the decline/or stagnation in cultivators class were the important changes in the primary sector.

(b) The slow and declining growth rate of secondary sector was another significant change. Between 1961-91 only five lakh additional workers were absorbed by the secondary sector. Interestingly, in relation to total workforce the growth rate in the secondary sector employment was very low and it was also growing slowly. Within the secondary sector we can observe a rapid decline in the number of workers in the household industry.

(c) Service sector workers had increased between 1961-91. Within the service sector, trade and commerce, transport and communication the number of workers had increased at a faster rate. The other service category workers had increased at a higher rate only during Eighties.

(d) Another important aspect is the high growth rate of work force in relation to population in Andhra Pradesh. Andhra Pradesh exhibited the highest workforce participation rate in the country. The workforce participation rates in India in 1961, 1971 and 1981 were 43.6, 33.1 and 33.4 percent respectively and the corresponding figures for Andhra Pradesh were 51.9, 41.4 and 42.3 percentages.

This was explained in terms of larger number of females and children entering the labour market[1]. In the rural Areas the workforce participation was very high for both male, female labourers and even in the lower and higher age groups i.e., below 15 years(18%) and above the age group of 60 years (39% for total, 60% and 48.6% for males and females). Interestingly in urban areas the work force participation rate in Andhra Pradesh was lower when compared to rural areas in Andhra Pradesh or the all India average in urban areas.

Why was there a rapid increase in agricultural labourers?. Were the rural areas undergoing changes which were responsible for a rapid growth of the labouring class?. How was the agricultural sector absorbing such a high growth in labourers?. What are the implications of such a high workforce participation rates especially in rural areas, on migration and urbanization?. If we assume that it led to migration and urbanization, where did they get employed?. Which were the major sectors that absorbed the increasing migrants? How were they reflected in the changes in urban workforce structure?. To answer these questions one has to go deeper into what has been happening in rural and urban areas, especially the changes in the agricultural and industrial sectors.

Table 4.4 gives information on the workforce structure in urban areas for the period 1961-91.

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[1]. Narayana Murthy J L(1992).

Table 4.4: Urban Workforce structure in Andhra Pradesh. (1961-91) (Absolute figure are in Lakhs)

Years	Popula tion	Main Workers	Industrial Categories of Workers									P	S	T
			I	II	III&IV	Va	Vb	VI	VII	VIII	IX			
1961	62.7	22.6	1.8	2.0	0.6	2.7	2.8	0.9	3.4	1.7	6.7	4.4	6.4	11.8
1971	84.0	25.8	1.4	2.7	0.7	1.4	4.3	1.3	5.2	2.8	5.8	4.9	7.0	13.9
1981	124.9	38.0	1.8	4.1	1.0	2.2	6.9	1.7	7.6	4.4	8.4	6.9	10.7	20.4
1991	178.9	54.2	1.9	6.8	1.6	2.1	8.7	2.9	11.4	5.6	13.2	10.3	13.7	30.1
Percent														
1961	36.8	100.0	8.1	8.7	2.7	12.0	12.4	4.0	14.9	7.7	29.6	19.5	28.3	52.2
1971	30.7	100.0	5.6	10.6	2.9	5.5	16.7	5.0	20.2	10.9	22.6	19.1	27.2	53.8
1981	30.4	100.0	4.7	10.9	2.5	5.7	18.1	4.4	19.9	11.6	22.1	18.1	28.3	53.7
1991	30.3	100.0	3.5	12.6	3.0	3.9	16.0	5.4	21.0	10.3	24.3	19.1	25.3	55.6
Growth														
1961-71	3.4	1.4	-2.1	4.0	2.1	-4.7	5.4	4.3	5.5	6.2	-1.3	1.2	1.0	1.8
1971-81	4.9	4.7	2.4	5.0	2.9	5.3	6.0	2.9	4.5	5.7	4.3	3.9	5.3	4.7
1981-91	4.3	4.3	0.5	6.6	6.9	-0.2	2.6	7.6	5.0	2.6	5.7	5.1	2.3	4.8

Note:Same as for Table 4.3
Source:Same as for Table 4.3

From Table 4.4 we can observe the following trends.

(a) In the Urban areas of Andhra Pradesh the service sector was the dominant contributor to the total urban workers with 11.8 lakhs out of a total of 22.6 lakhs of workers. The number had increased to 30.1 lakhs by 1991. It constitutes nearly 52 percent of the total workforce and the share has increased from 52.2 percent in 1961 to 55.6 percent in 1991. The growth rate of service sector was higher than the growth rate of total urban workers. This implies that service sector was the main absorber of the increasing urban workforce.

(b) After the service sector it was the secondary sector which was absorbing the urban workforce. The workers in the secondary sector had increased from 6.4 lakhs in 1961 to 10.7 and 13.7 lakhs in 1981 and 1991 respectively. However, the growth in the secondary sector employment was not commensurate with increase in urban workforce.

(c)   Interestingly, even in urban areas, over 19 percent of the workforce is in the primary sector. However, its share had declined marginally from 19.5 percent in 1961 to 18.1 percent in 1991. From this we can infer that a sizeable segment of urban workforce is indeed dependent on agriculture for employment.

(d) At a more disaggregate level we can observe that in 1961 the other services category had the highest component of urban workers followed by Trade and Commerce, agricultural labourers, and cultivators. Total number of agricultural labourers and cultivators had increased in the latter case only marginally between 1961 and 1991. Agricultural labourers had increased from 2 lakhs in 1961 to 7 lakhs by 1991. Cultivators had increased in number from 1.8 to 1.9 lakh between 1961-91. The size of cultivators class and the rapidly growing agricultural labourers in urban areas indicate that the towns and cities in Andhra Pradesh could not shed their pre-urban moorings. This along with the dominance of trade and commerce and other services categories indicate that the urban areas especially small and medium towns expand mainly because of growth in agriculture leading to a rise in employment opportunities in trade, transport, commerce and other services like health eduction etc.

(e) Another interesting feature was the expansion of secondary sector. In the urban areas household industry had not expanded, infact the number of workers had declined from 2.7 lakhs in 1961 to 2.1 lakhs in 1991. But the workers in non-household industry had increased by three times between 1961-1991. The share of house-hold industry in the total urban workforce had gradually declined from

12 percent in 1961 to 5.7 percent in 1981 and to a further fall to 3.9 percent in 1991. The non-household industry workers had increased from 12.4 percent in 1961 to 18.1 percent in 1981. But during 80s it had shown a decline ie. from 18.1 to 16 percent between 1981-91.

(f)   The percentage of workers in other services categories had declined in urban areas from 29 to 22 percent between 1961-81. But during the eighties, the share of other services category had increased from 22 to 24 percent. Between 1961-91 the share of cultivators and workers in non-household industry had declined from 8.1 and 12 to 3.5 and 3.9 percentages respectively. And agricultural labourers and workers in trade and commerce increased continuously.

To sum up, the main absorber of workers in urban areas was the tertiary sector. Nearly 50-55 percent of total urban workforce was in the service sector. This was followed by secondary and primary sectors. During seventies the main absorbers of urban workforce were services sector followed by secondary sector. The share of the secondary sector had declined during eighties as compared to seventies.

At a more disaggregate level the main absorbers were other services, trade and commerce, non-household industry, transport and communication and interestingly, agricultural labourers. During seventies except other services all the other categories mentioned above, had shown an increase in their shares. During eighties, the shares of other services, trade and commerce, construction and

agricultural labourers had shown an increase in their shares as compared to seventies. Interestingly, the shares of non-household industry, transport and communication has shown a fall in their shares during eighties as compared to seventies. Thus, during seventies industry, transport and communication had absorbed the workers and hence provided stimulus to high urban growth. During eighties, it was trade and commerce, other services and agricultural labourers categories that had absorbed the workers.

Why did the secondary sector, especially non-household industry, fail to absorb the workers at an increasing rate?. Why had the service sector absorbtion grown at a rapid rate during eighties as compared to seventies and sixties?. Was the impact of these changes uniform across all types of towns ie. all size classes of towns?. What were the changes that one can see at the size class level?. To analyze these issues we have to go into the functional classification of towns and changes in the functional characteristics of towns over time.

Functional Classification of Towns:

Tables 4.5 to 4.7 provide the necessary information on functional classification of towns in the state.

Table 4.5: Cities and Towns according to their Predominant Functional Characteristics.1961

Functional Characteristics	Class and Number of Cities and Towns						
	I	II	III	IV	V	VI	I-IX
Mono Functional:	3	5	17	34	52	1	112
Industry(In)	1	3	10	15	7	1	37
Primary(P)	0	1	2	19	38	0	60
Services(S)	2	1	5	0	4	0	12
Trade & Commerce	0	0	0	0	1	0	1
Transport(Tr)	0	0	0	0	2	0	2
Bi-Functional:	5	1	16	22	11	0	55
In-P	0	0	3	7	4	0	14
In-S	5	1	7	4	1	0	18
In-Tr	0	0	0	0	0	0	0
In-T&C	0	0	1	0	0	0	1
P-S	0	0	4	11	5	0	20
P-Tr	0	0	0	0	0	0	0
P-T&C	0	0	0	0	0	0	0
S-Tr	0	0	0	0	1	0	1
S-T&C	0	0	1	0	0	0	1
Tr-T&C	0	0	0	0	0	0	0
Multi Functional: Dominant:	3	2	18	15	7	0	45
In	1	1	2	4	0	0	8
P	1	1	2	4	0	0	8
S	2	1	11	6	1	0	21
T&C	0	0	0	0	0	0	0
Tr	0	0	1	0	0	0	1
Grand Total	11	8	51	71	70	1	212

Note:
In, P, S, T&C, and Tr means Industry, Primary, Trade and Commerce, Transport functions respectively.

Source: Census of India(1971): Town Directory, Series-2, Part-VI, Andhra Pradesh.

Table 4.6: Cities and Towns according to their Predominant Functional Characteristics.1971

Functional Characteristics	Class and Number of Cities and Towns						
	I	II	III	IV	V	VI	I-IX
Mono Functional:	0	3	23	44	22	3	95
In	0	2	11	11	5	2	31
P	0	1	12	31	16	0	60
S	0	0	0	1	1	1	3
T&C	0	0	0	1	0	0	1
Tr	0	0	0	0	0	0	0
Bi-Functional:	1	3	11	8	7	1	31
In-P	0	0	7	2	4	1	14
In-S	0	1	0	0	0	0	1
In-Tr	0	0	0	0	0	0	0
In-T&C	1	1	1	0	0	0	3
P-S	0	0	2	1	3	0	6
P-Tr	0	0	0	1	0	0	1
P-T&C	0	0	1	4	0	0	5
S-Tr	0	0	0	0	0	0	0
S-T&C	0	1	0	0	0	0	1
Tr-T&C	0	0	0	0	0	0	0
Multi Functional: Dominant:	12	11	25	24	9	0	81
In	8	2	2	4	2	0	18
P	0	2	13	15	4	0	34
S	3	3	3	2	2	0	13
T&C	1	3	6	3	0	0	13
Tr	0	1	1	0	1	0	3
Grand Total	13	17	59	76	38	4	207

Note: In, P, S, T&C, and Tr means Industry, Primary, Trade and Commerce, Transport functions respectively.

Census of India(1971): Town Directory, Series-2, Part-VI, Andhra Pradesh.

Table 4.7: Industrial Structure of Workforce and their Predominant functional characteristics in Cities of Andhra Pradesh:1981

Name of the City	Main Workers in Industrial Groups						Functional Category
	Primary	Mining	Industrial	Commercial	Transport	Services	
Hyderabad	2.25	0.20	29.94	21.61	12.48	33.53	S-In
Visakhapatnam	3.17	0.26	28.55	14.17	24.93	28.92	In-S-Tr
Vijayawada	5.69	0.11	27.66	25.30	22.73	18.51	In-T&C-Tr
Guntur	10.61	0.01	29.69	21.80	16.55	21.34	In-T&C-S
Warangal	9.73	0.09	34.27	18.47	15.28	22.52	In-S-T&C
Rajahmundry	6.44	3.13	31.75	23.58	14.97	20.13	In-T&C-S
Nellore	12.85	0.08	32.45	20.56	12.49	21.57	In-S-T&C
Kakinada	12.36	0.03	24.47	19.31	15.44	28.39	S-In-T&C
Kurnool	13.45	0.28	31.31	17.81	10.02	27.13	In-S-T&C
Nizamabad	15.75	0.02	30.57	21.7	11.69	20.27	In-T&C-S
Eluru	9.11	0.02	36.28	23.42	10.11	21.06	In-T&C-S
Machilipatnam	16.29	0.03	27.32	22.46	10.69	23.21	In-S-T&C
Anantpur	7.49	0.03	22.8	23.33	14.47	31.88	S-T&C-In
Tenali	19.23	0.01	23.96	27.03	11.94	17.83	T&C-In-P
Tirupati	8.05	0.01	21.24	26.27	11.87	32.56	S-T&C-In
Vijianagaram	3.63	0.09	23.08	31.28	20.10	21.82	T&C-In-S
Adoni	15.47	0.00	38.45	21.65	9.27	14.56	In-T&C
Proddatur	10.76	0.01	44.08	23.2	8.44	13.51	In

Note: P, In, S, T&C and Tr means Primary, Industrial, Services, Trade and Commerce and Transport and Communication Functions respectively.

Source: Census of India(1981): Census Atlas, Part-XII, Series-2, Andhra Pradesh.

(a) From Tables 4.5 through 4.7 we can observe that in 1961 out of a total of 212 towns in Andhra Pradesh more than 50 percent were Mono-Functional, 25 Percent were Bi-functional and 25 percent Multi-Functional. In 1971 the share of mono-functional and bi-functional towns had declined to around 45 percent and 15 percent respectively and that of multi-functional towns had increased to 40 percent. Thus, between 1961-71 there was a shift from mono-functional and bi-functional towns to multi-functional towns.

(b) The shift from mono-functional and bi-functional to multi-functional towns was highest in the case of class-I towns followed by class-II and III. In the case of lower size class of towns ie.

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from class-IV to VI the mono-functional type dominates, with nearly 50 to 75 percent of them being mono-functional.

(c) Among the mono-functional towns the primary towns dominate with nearly 50 percent of total mono-functional towns. These were followed by industry. This was especially so in lower size class of towns. This had a definite relation with predominance of the agricultural labourers and cultivators class in urban areas of Andhra Pradesh. The administrative criteria, included in identifying a place as urban, leads to the predominance of primary activities in these towns. Also, the presence of household industries in small towns makes them qualify as industrial towns. Another reason could be that when the workers in household industry of the rural areas face unemployment problem, due to lack of demand for their products in rural areas, they may move to urban areas and get employed in those industries. This move could be mostly from rural areas to a nearby market centre of household industry or a small town. This leads to the increase in the workers in industry and they will become industrial towns. Another reason could be the presence of mining activities, project site camps etc. In the higher size class of towns we observe that either industry or services were the dominant characteristics or functions. The concentration of economic activities and the administrative machinery and hence the consequent migratory moves by people from rural areas will lead either to industry or services being the main function of the town.

(d) In bi-functional towns industry-cum-services and industry-cum-trade and commerce are the dominant functional characteristics in

cities and medium towns. In the small towns it was mainly primary-cum-services and primary-cum-industry which were the main functional type. The primary-cum-services had declined in 1971 as compared to 1961. In multi-functional towns industry and services were the dominant type in cities and medium towns. In small towns it was mainly the primary function followed by industry and services.

(e) For 1981 we could not make a functional classification as the relevant information at town level was not available. But Table 4.7 provides information for cities. In 1981 only one town (Proddatur) was the mono-functional industrial town. Two cities Hyderabad and Adoni were bi-functional. The rest were multi-functional. In the multi-functional cities industry was the dominant function with trade & commerce and services coming next. Thus most of the cities were increasingly becoming industrial in nature with trade, commerce and services coming next. Trade and Commerce was the dominant function in Tenali and Vijianagaram. Transport and communication entered as one of the multi-functions in the cities of Vijayawada and Visakhapatnam. The rail and sea transport could be the respective reasons for these two cities. Interestingly industry became the dominant characteristic in most of the cities of Andhra Pradesh. It could be because of the concentration of economic activities in cities in Andhra Pradesh. The predominance of trade and commerce as the main function is another interesting feature of the towns and cities in the state.

From the above analysis we can observe that service towns were more in number from among the medium towns followed by small towns. In the higher size class of towns it entered as one of the bi and

multi functions. That is services were not the dominating function in all size classes of towns especially in medium and small towns. It entered as one of the multi or bi function in cities.

Service Sector in the Urban Areas:

Now we will go a little deeper into the service sector category in Urban areas. Table 4.8 provides information on the structure of workforce within the service sector.

Table 4.8: Components of tertiary Sector
Workers in Urban Areas of Andhra Pradesh

Components	1971	1981
Service Workers	100	100
1. Whole Sale Trade	2	3
2. Retail Trade	31	30
3. Land Transport	18	19
4. Public Admn, Defence	15	13
5. Research, community Services and health	13	13
6. Personnel Services	8	6
7. Others	13	16
8. Total	100	100

Source:Same as Table 4.3

(a) As is clear from table 4.8 in urban areas retail trade claimed a little over 30 percent of the total urban service sector workers. Out of these, retail trade in food and food articles; beverages, tobacco and tobacco products and intoxicants constitute nearly 90 percent of the total retail trade workers [Major Group 65 of the two digit level National Industrial Classification (NIC) 1970]. These include grain and grocery store; vegetable and fruit selling; pan, bidi, cigarette shops etc. The next highest share was found in land transport followed by public administration and defense.

(c) Now it is clear that the service sector had been expanding not because of structural changes in economy of the state, but because of the lack of enough employment opportunities in rural as well as urban areas. The existence of these activities in the 'urban informal sector' is another interesting feature of the urban workforce. Does it imply lack of enough employment generation in Industrial sector in Andhra Pradesh?. We have observed earlier that the employment in the secondary sector was growing at a slower rate. Its share in total workforce had declined, though marginally, between 1961-91 and especially during the eighties. Why is it so?. To analyze this issue we will go into the growth and structure of industrial sector in Andhra Pradesh.

Industrial Structure:

Though Andhra Pradesh was considered as an industrially backward state it had made considerable progress in recent times ie seventies and eighties. Table 4.9 provides information on the number of factories, no of employees, stock of capital, value of output and value added etc, and also the growth rates between 1960/61 to 1984/85.

Table 4.9: Indicators of Industrial development and other Related Statistics (At 1961-62 prices)
(Value in Rs Lakhs, Factories and employees in number)

Years	No of Factories	No of Employees	Fixed Capital	Working Capital	Stock of Capital	Value of Output	Value Added	Output Per Unit of Labour	Output Per Unit of Capital	Capital Per Unit of Labour
1960-61	3526	225239	5821	3454	13493	18774	3153	1.609	0.269	5.992
1961-62	3611	212046	5776	4206	13231	18992	3602	1.992	0.320	6.235
1962-63	4042	239243	6350	5466	13484	21018	3709	1.773	0.315	5.637
1963-64	3836	256498	14783	6274	21030	25536	4588	1.930	0.235	8.199
1964-65	4055	282869	15748	6340	21384	29252	5382	1.831	0.242	7.559
1965-66	4178	304205	19130	5776	23663	35000	6369	1.857	0.239	7.779
1966-67	4036	287000	27344	NA	29216	39203	7140	1.977	0.194	10.180
1967-68	4000	288371	32077	12119	31812	44688	6898	1.772	0.161	11.031
1968-69	4245	305395	40972	19109	37371	54101	8444	2.144	0.175	12.237
1969-70	4791	333267	46319	10727	40000	65273	10675	2.368	0.197	12.001
1970-71	5448	325108	48360	11215	40204	68786	12486	2.643	0.214	12.367
1971-72	4245	339867	52657	11301	41579	74891	13589	2.628	0.215	12.233
1972-73	No Survey was held in this Year and hence no information is available									
1973-74	5042	389762	58758	14819	42326	110298	23425	2.765	0.255	10.858
1974-75	5542	439943	66109	24518	44055	145262	26155	2.227	0.222	10.015
1975-76	6150	466062	74796	27903	46251	170659	31913	2.679	0.270	9.923
1976-77	8450	561658	85798	30838	48585	188463	37031	2.460	0.284	8.650
1977-78	8931	589449	102927	37102	53130	198314	39793	2.370	0.263	9.013
1978-79	9948	644495	120079	46825	56874	234452	47137	2.520	0.286	8.825
1979-80	11701	701750	156148	54158	64934	270185	54743	2.289	0.247	9.252
1980-81	11155	673010	182123	53261	69719	318420	58367	2.221	0.214	10.359
1981-82	12001	728731	193805	63808	70597	349130	69568	2.227	0.230	9.688
1982-83	10904	759304	235700	69695	76633	474738	101585	2.896	0.287	10.093
1983-84	11837	729686	288732	97468	85150	568601	130192	3.670	0.314	11.669
1984-85	10174	683311	315871	97148	87240	625938	143236	4.036	0.316	12.767

Source:
Bureau of Economics and Statistics: Andhra Pradesh Statistical Abstract, Hyderabad, Various Issues.

(a) The number of factories had increased from 3526 with over 2.25 lakh employees in 1961 to 5448 factories with 3.25 lakh employees in 1970-71 and to 11155 factories with 6.73 lakh employees in 1981. During the same period the value of output had increased from Rs.18774 lakhs in 1960-61 to Rs.68786 and Rs.318420 lakhs in 1970-71 and 1980-81. The value added had increased from Rs.3153 lakhs in 1960-61 to Rs.12486 and Rs.58367 lakhs in 1970-71 and 1980-81. The growth rates during seventies and eighties were very high in all indicators when compared with sixties. The average annual growth

rate of factories was 5 in sixties and 10 in seventies. The average annual growth rate of employees was 4 and 11 percentages in Sixties and Seventies respectively. And for value of output and value added the respective growth rates were 27 and 30 percent in sixties and 36 and 37 percent in seventies. Thus during seventies the industrial sector of the state seems to have made considerable progress as compared to sixties. However, there was a slowing down of this high growth rate during eighties, especially late eighties as compared to the seventies.

(b) Another interesting aspect was the changes in the structure and composition of industry [Tables 4.10 and 4.11].

Table 4.10: Growth Rates of Index numbers of Industrial Production in Andhra Pradesh.

Industrial Groups	Average Annual Growth Rates of Industrial Production					
	1970-75	1975-80	1985-80	1970-80	1980-87	1970-87
1.Mining and Quarrying	19.78	7.48	9.70	17.33	11.30	22.91
2.Food	1.94	-6.34	6.33	-2.51	8.85	1.25
3.Beverages	12.90	-1.08	1.66	5.56	2.07	4.60
4.Tobacco	0.70	4.12	2.44	2.48	-2.56	0.14
5.Textiles	5.56	2.22	-0.07	4.20	-2.14	1.22
6.Paper and Paper Products	2.10	5.92	31.03	4.32	15.87	11.90
7.Leather and Leather Products	-6.18	-2.49	4.96	-3.95	-10.51	-4.94
8.Chemical and Chemical Products	3.94	10.79	0.59	8.43	-0.09	4.89
9.Petroleum and Petroleum Products	-2.18	3.41	16.38	0.43	10.79	4.89
10.Non Metallic Mineral Products	2.90	2.83	26.50	3.07	17.93	11.45
11.Basic Metal Products	-4.08	4.85	10.27	-0.11	4.32	1.69
12.Metal Products except Machinery & Transport equipment	2.54	14.43	3.93	9.40	-5.99	0.74
13.Machinery except Electrical Machinery	18.26	13.54	-0.72	22.08	2.52	16.32
14.Electrical Machinery	39.92	10.55	22.43	35.76	17.17	53.39
15.Transport Equipment	27.96	1.34	17.61	15.59	8.21	17.82
16.Miscellaneous	-1.70	23.15	0.00	9.74	2.25	7.56
17.Generation of Electricity	4.16	18.59	18.24	13.31	15.44	22.65
(1-17)General Index	8.68	6.95	12.11	9.32	9.32	12.89

Source: Bureau of Economics and Statistics, Andhra Pradesh Statistical Abstract, Hyderabad.

Table 4.11: Percentage Shares of various Industry Groups in Total Factories, Employees, Gross Fixed Capital, Gross Value Added

Major Industry Groups	Factories				All Employees				Gross Fixed Capital				Gross Value Added			
	1960	1969	1979-80	1984-85	1960	1969	1979-80	1984-85	1960	1969	1979-80	1984-85	1960	1969	1979-80	1984-85
BASIC INDUSTRIES	3.2	4.1	4.7	7.2	3.5	18.8	13.9	18.6	21.1	65.5	67.1	58.6	9.3	33.4	30.2	34.7
1.Chemical & Chemical Products	1.7	2.5	2.9	5.0	1.0	2.9	4.2	5.2	2.0	18.2	14.0	11.1	2.1	12.2	7.9	6.6
2.Cement	0.2	0.1	0.1	0.2	1.3	0.9	0.6	1.2	12.4	2.0	2.1	3.9	4.1	3.6	2.7	5.8
3.Iron & Steel	0.5	1.4	1.6	1.9	0.8	1.4	1.7	2.3	3.4	2.5	2.2	4.5	2.4	1.4	3.2	2.6
4.Electric Light & Power	0.8	0.2	0.0	0.1	0.4	13.6	7.4	9.9	3.4	42.8	48.9	39.1	0.7	16.3	16.4	19.7
CAPITAL GOODS INDUSTRIES	7.9	11.9	8.1	10.3	9.6	10.9	11.3	11.8	11.0	11.6	10.8	9.8	11.7	19.7	24.6	31.9
5.Machinery except electrical	2.9	4.7	2.3	2.6	2.3	5.1	3.3	3.4	1.2	9.1	3.5	2.2	2.1	5.7	6.6	6.2
6.Electrical machinery Appliances & Supplies	0.2	0.7	1.2	2.1	0.7	0.3	3.2	4.6	1.2	0.3	5.0	4.6	0.5	0.8	12.0	21.9
7.Shipbuilding and Repairing	0.1	0.1	0.2	0.2	2.3	1.5	1.3	1.3	6.0	1.3	1.3	1.7	3.5	1.6	2.5	0.6
8.Motor Vehicles	0.1	0.1	0.2	0.4	1.5	0.2	0.3	0.3	1.2	0.1	0.1	0.0	2.3	0.3	0.5	0.3
9.Repair of Motor Vehicles	2.0	3.0	1.7	1.8	1.9	2.7	2.3	2.7	1.0	0.5	0.4	0.3	1.6	1.8	2.1	1.7
10.Metal Products except Machinery,Transport Equipment	2.6	3.5	2.6	3.3	1.0	0.9	0.9	1.5	0.4	0.2	0.4	0.9	1.7	0.5	0.8	1.2
INTERMEDIATE GOODS INDUSTRIES	1.0	1.2	1.5	2.2	0.4	0.5	1.0	1.6	0.2	0.1	0.9	7.4	0.2	0.2	1.1	1.5
11.Rubber Products	0.3	0.2	0.4	0.5	0.0	0.1	0.3	0.3	0.0	0.0	0.2	0.1	0.0	0.1	0.4	0.3
12.Petroleum & Coal Products	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.6	6.3	0.0	0.0	0.4	0.9
13.Structural Clay Products	0.7	1.0	1.1	1.6	0.4	0.3	0.7	1.0	0.2	0.1	0.2	0.5	0.2	0.1	0.3	0.3
CONSUMER GOODS INDUSTRIES	69.8	61.9	74.8	58.8	73.1	56.2	62.1	55.0	37.7	18.8	14.6	18.4	53.3	53.2	34.6	22.7
14.Spinning, Weaving and Finishing of Textiles	2.0	2.6	2.3	2.4	10.0	8.5	7.0	10.9	9.6	3.0	2.5	5.3	10.3	5.4	8.3	6.5
15.Pulp Paper & Paper Board	0.2	0.3	0.5	0.8	2.0	2.4	1.6	2.5	8.9	8.0	4.4	5.9	3.9	22.2	4.2	3.0
16.Miscellaneous Food Products	43.3	43.4	22.3	28.4	15.6	12.0	10.1	10.6	5.0	2.8	2.5	4.0	10.8	5.3	9.3	4.4
17.Tobacco and Tobacco Products and Beverages	23.8	13.8	47.8	25.5	42.3	27.3	34.4	27.2	6.3	1.0	1.1	1.4	20.2	8.3	10.1	6.9
19.Sugar Factories	0.5	1.8	1.9	1.6	3.2	6.0	9.0	3.8	7.9	4.1	4.1	1.8	8.0	11.9	2.7	2.0
TOTAL	81.6	79.1	89.2	78.5	86.7	86.3	88.4	89.0	70.0	96.0	93.0	94.5	74.6	97.5	98.4	90.7
OTHERS	18.4	20.9	10.8	13.4	13.3	13.7	11.6	11.0	30.8	4.0	7.0	5.5	25.4	2.5	9.6	9.3
GRAND TOTAL OF ALL GROUPS	3526	4791	11701	11074	225	333	702	683	62	492	1647	3416	36	135	633	1690

Source: ASI Report on Factory Sector for the relevant Years, Central Statistical Organisation.

During sixties the industrial structure of Andhra Pradesh was dominated by the agro-based industries like paper and paper board, food products, tobacco and tobacco products and beverages. The consumer goods industry had nearly 70 percent of total number of factories with 73 percent of total employees and 38 percent of fixed capital and 53 percent of total value added in 1960. The share of these industries had declined in Seventies and Eighties. In 1984-85 the consumer goods industries had only 59 percent of total factories and 55 per cent of employees with 19 percent of gross fixed capital and 22 percent of value added. The decline in

consumer goods industries was replaced by basic industries(Chemical and Chemical Products, Cement, Electric Light and Power) and Capital Goods Industries (Machinery except Electrical; and Electrical Machinery Appliances and Supplies etc.). Their share in employment, number of factories, fixed capital and value added had gone up. Thus, during Seventies and Eighties the industrial structure of Andhra Pradesh had changed from agro-based to non agro-based and capital intensive industries. "Although a few traditional agro-based industries such as food products, tobacco and tobacco products, textiles etc still dominate the industrial economy of the state, their relative importance, however, had declined significantly since mid-seventies in favour of modern high-tech industries such as chemical and chemical products, electrical machinery, basic metal alloy industries, cement etc. Thus, the nature of industrialisation was such that the traditional, agro-based industries gave way to modern non agro-based and capital intensive industries". Not only was the growth capital intensive in nature, but there was also an increase in the capital intensity of individual industries"[Sunder (1990)]

(c) Another interesting aspect related to industrialisation of Andhra Pradesh was the rapid integration of the state's industrial economy with the national and international markets. "Till mid sixties, industrialisation was primarily confined to agro-processing to meet local needs as well as to serve wider national markets as in the case of textiles and tobacco, and manufacturing products based on its forest and mineral resources. But thereafter, shifts have been taking place towards footloose type products based on imported inputs from other regions producing for national

markets"[Sudhakara Reddy S (1984), George Rosen (1988) Quoted in Radhakrishna (1990)]. Thus the nature of industrialisation in Andhra Pradesh was such that it is highly capital intensive with limited backward and forward linkages especially in creating employment.

Thus, the nature of industrialisation ie., low levels of industrial development, changes in the structure of industry from agro-based and low capital intensive to non agro-based and highly capital intensive etc was such that it could not provide employment at an increasing rate. Though the rate of industrialisation was rapid, due to its very nature of industrialisation, the employment generation on a large scale did not take place. Hence the share of secondary sector workers had declined in Andhra pradesh. But what are the sources of rapid rate of industrialisation in Andhra Pradesh during seventies and eighties?.

Industrialisation of the state in seventies and early eighties was due to the massive Central Public Sector investments in heavy and capital intensive industries, the better incentive schemes offered by the state government, better industrial infrastructural facilities like power, the financial assistance by the industrial promotional organisations like Andhra Pradesh Industrial Development Corporation (APIDC), AP state Financial Corporation (APSFC), AP industrial Infrastructural Corporation (APIIC) etc., Changes in the input structure of Agriculture since mid-sixties etc. Another interesting factor that facilitated the rapid industrialisation was the investment by private entrepreneurs and surplus flow from agriculture to industry and the entry of the rich peasantry into industry [Radhakrishna (1990,2)].

To sum up the discussion, a rapid urban growth during seventies and eighties was due to high rural to urban migration. However, the secondary sector did not absorb the rapidly growing labour force in urban areas due to the nature of industrialisation that was taking place in Andhra Pradesh. With the lack of enough employment opportunities in the secondary sector, the labour force was getting employment in tertiary sector. Within the tertiary sector it was retail trade, land transport, public administration, defence, scientific, health and community services and personal services that had absorbed the growing labour force. From the nature of service sector jobs we infer that it is an indication of distress induced migratory moves.

Earlier we have observed that the rapid industrialisation during seventies and eighties was facilitated by surplus flow from agriculture to industry. Also, we observed that there was a migration of labourers, in search of employment, to the urban areas. Thus, we are getting two conflicting pictures about the sources of urbanization, from rural areas. One is the emergence of rich peasants and flow of resources. The other is migration of rural labourers to urban areas in search of employment. Why did these two divergent processes occur?. To understand this issue we have to go into the changes that were taking place in rural areas especially the changes in agricultural sector.

Changes in Agricultural Sector:

For analyzing the changes in the agricultural sector the following variables are selected. (i) workforce structure; (ii) land holding pattern and; (iii) cropping pattern and organisation of production.

Table 4.12: Structure of Total Workforce in Rural Areas of Andhra Pradesh: 1961-91

(Figure are in Lakhs)

Years	Population	Main Workers	I	II	III & IV	Va	Vb	VI	VII	VIII	IX	P	S	T
Total
1961	297	164	73	51	5	15	2	1	5	1	11	129	19	16
1971	351	154	57	66	6	7	3	2	5	1	8	128	12	14
1981	411	188	72	79	6	8	5	2	6	2	8	157	15	16
1991	486	230	77	109	6	7	7	2	8	2	12	192	16	22
Percent
1961	55.2	100.0	44.5	31.3	3.0	9.4	1.2	0.8	2.8	0.4	6.5	78.9	11.4	9.7
1971	43.9	100.0	36.6	42.5	4.0	4.7	2.1	1.0	3.0	0.7	5.3	83.1	7.9	9.0
1981	45.9	100.0	38.4	42.0	3.0	4.5	2.8	0.8	3.1	0.9	4.4	83.4	8.1	8.5
1991	47.4	100.0	33.5	47.5	2.6	3.2	3.0	0.8	3.3	1.0	5.1	83.5	7.0	9.5
Growth
1961-71	1.8	-0.6	-2.3	2.8	2.3	-5.3	6.6	2.0	-0.0	7.4	-2.3	-0.1	-3.5	-1.2
1971-81	1.7	2.2	2.3	3.1	-0.7	1.6	6.2	-0.0	2.8	5.0	0.2	2.3	2.6	1.4
1981-91	1.8	2.2	0.7	3.8	0.3	-1.2	3.1	1.5	3.0	4.1	4.1	2.2	0.5	3.7

Note: Same as for Table 4.3.
Source: Same as for Table 4.3.

(i) Workforce Structure in Rural Areas:

(a) The most important feature of workforce structure in rural areas was their high participation rate. As we pointed out earlier workforce participation was higher in Andhra Pradesh as compared to all India average. And within Andhra Pradesh, it is higher in rural areas as compared to urban areas. In 1961 the Work force participation rate was as high as 55.2 percent. The 1971 census shows that it had declined to 43.9 percent. This decline is partly attributed to changes in the definitions. However, interestingly the workforce participation rates were 46 and 47 percentages in 1981 and 1991 respectively. This can also be observed from the growth rates of population and the main workers between 1961-91.

(b) Among the three sectors ie., Primary, Secondary and Tertiary, the primary sector had increased its share from 78.9 to 83.3 percent between 1961-71. It remained constant till 1991 at 83 percent. The share of tertiary sector had also remained constant around 9 percent between 1961-91. But the share of secondary sector had declined from 11 percent in 1961 to 7 percent thereafter. The growth rates of total main workers as well as the three sectors were the same between 1961-91, except during eighties when the growth rate was lower for secondary sector and higher for tertiary sectors, as compared to that of the total main workers.

(c) Within the primary sector agricultural labourers had more than doubled from 51 to 109 lakhs and the number of cultivators had increased from 73 to 77 lakhs between 1961 and 1991. In terms of percentages the agricultural labour class had increased from 31 to 42 and then to 47 percent between 1961 and 1981 and 1991. And the share of cultivators had declined from 44 to 38 and 33 percent from 1961 to 1981 and 1991. The increase in the agricultural labourers was one of the important feature of workforce structure in rural areas of Andhra Pradesh.

(d) In the non-agricultural sector the number of workers in household industry had declined sharply from 15 lakhs in 1961 to 8 and 7 lakhs in 1981 and 1991 respectively. In non-household industry; trade and commerce; other service category workers had increased under them. Thus the increase in the number of workers in non-household industry, trade and commerce; other services was another important feature.

Table 4.13 gives information on the number of holdings and area operated under major categories of cultivators ie., marginal, small, large etc.

Table 4.13: Area Operated and Number of Holdings according to
Major Size of Holdings. (Figures are in 000's)

Major Heads	YEARS	Number of Holdings	% of Total	Area Operated (Hectare)	% of Total	Average Under Holding (Hectares)
MARGINAL	1970-71	2492	46	1085	8	0.44
(below 1 ha)	1976-77	2868	47	1336	9	0.47
	1980-81	3804	52	1887	13	0.50
	1985-86	4461	54	2053	15	0.46
SMALL	1970-71	1065	20	1533	11	1.44
(1 to 2 ha)	1976-77	1252	20	1836	13	1.47
	1980-81	1591	22	2412	17	1.52
	1985-86	1714	21	2454	17	1.43
SEMI-MEDIUM	1970-71	942	17	2607	19	2.77
(2 to 4 ha)	1976-77	1072	17	2993	21	2.79
	1980-81	1174	16	3261	23	2.78
	1985-86	1254	15	3391	24	2.70
MEDIUM	1970-71	689	13	4186	31	6.08
(4 to 10 ha)	1976-77	753	12	4647	32	6.17
	1980-81	646	9	3978	28	6.16
	1985-86	657	8	3865	27	5.88
LARGE	1970-71	234	4	4174	31	17.87
(10 ha & above)	1976-77	209	3	3569	25	17.06
	1980-81	155	2	2795	20	18.06
	1985-86	146	2	2394	17	16.40
TOTAL	1970-71	5420	100	13586	100	2.51
(All Categories	1976-77	6154	100	14380	100	2.34
	1980-81	7370	100	14333	100	1.94
	1985-86	8231	100	14158	100	1.72

Source: World Agricultural Census, Various Issues and
Bureau of Economics and Statistics: Andhra Pradesh Statistical
Abstract, Hyderabad, Various Issues.

The distribution of operated Area was highly skewed in Andhra Pradesh. The top 10-15 percent of the holdings had nearly 50-60 percent of the operated area and the bottom 50 percent had only 15 percent. Though there seems to be an increase in the percentage of

the operated area under marginal and small holdings, the number of holdings had also increased. Between 70-75 percent of the holdings were small and marginal. In the absence of adequate income from their holdings, the small and marginal holdings are likely to go as wage labourers or even the potential migrants to cities.

On the other hand, the concentration of operated area under the medium and large holdings was the source of generation of surplus in agricultural sector. Though there was a marginal decline the area as well as the number of holdings in large and medium holdings still a very high propoation of operated area was under the large and medium holdings. The decline in the number of holdings and the operated area can be attributed to the land reform measures and the attempts by the large land owners to partition the land among the family members.

There seems to be an increase in the area under self-cultivation. The opportunities provided by the Green Revolution, favourable terms of trade to agriculture since mid sixties, incentives given by the govt to step up agricultural production and hence generation of surplus produce etc had induced the owners of land to go for self-cultivation[2].

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[2] Krishna Rao Y V(1984)

Table 4.14: Percentage distribution of Households according to Asset Groups and Share of Assets of Households in Each Asset Group in the Value of Total Assets.

| Household Group | Years | Assets Group (Rs Thousands) | | | | | |
		Upto 1	1-5	5-10	10-20	20-above	Total
Percent of	1960-61	21.2	43.9	15.0	11.1	8.7	100
Cultivators	1970-71	8.4	37.3	23.1	16.4	14.8	100
	1980-81	1.3	13.7	15.4	22.7	46.9	100
% Assets of	1960-61	1.5	14.2	13.5	19.9	50.9	100
Cultivators	1970-71	0.4	8.8	13.6	19.1	58.0	100
	1980-81	0.0	1.1	3.2	9.1	86.6	100
Percent of	1960-61	39.1	35.9	11.0	7.8	6.2	100
All Household	1970-71	31.2	32.8	15.6	10.8	9.6	100
	1980-81	9.1	26.0	15.0	17.5	32.4	100
% Assets of	1960-61	2.8	15.4	13.6	19.0	49.2	100
All Household	1970-71	1.6	10.5	13.7	18.6	55.6	100
	1980-81	0.2	2.6	4.2	9.8	83.2	100

Source:
AIRDIS(1961): Reserve Bank of India Bulletin, ,Vol.19, No.6, 1965 Reserve Bank of India, Bombay.

AIDIS(1971): Assets and Liabilities of households as on march 30th June 1971, Reserve Bank of India, Bombay.

AIDIS(1981): Assets and Liabilities of households as on march 30th June 1981, Reserve Bank of India, Bombay.

The concentration of land holdings and the consequent generation of surplus can also be seen from the assets distribution among cultivators and also among the rural households(Table 4.14). There seems to be concentration of assets in rural areas among the highest assets groups(above the income of 20,000). And there seems to be an increase in the concentration of assets as well as the percentage of cultivators and households.

From this we will now move on to changes in the agricultural sector itself. Table 4.15 provide information regarding changes in agricultural sector especially index numbers of area, yield and Production of important crops in Andhra Pradesh.

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Table 4.15: Indicators of Agricultural Development in Andhra Pradesh [Figures are in Lakhs of Hectares]

Years	Gross Sown Area	Net Sown Area	Gross Irrigated Area	Sources of Net Irrigated Area					Food Grains Area	Non-Food Crops Area	Total	Index Numbers (1960-61=100)		
				Total	Canals	Tanks	Wells	Others				Food	Non Food	Total
1960-61	118	108	34	29	13	12	3	1	97	21	118	100	100	100
1961-62	127	113	37	30	13	13	4	1	103	24	127	106	113	108
1962-63	128	116	37	32	13	13	4	1	103	25	128	107	118	109
1963-64	128	114	36	31	13	12	4	2	101	26	128	105	122	108
1964-65	128	115	38	32	14	13	4	1	101	26	128	105	123	108
1965-66	121	110	35	30	12	12	5	1	95	26	121	98	122	102
1966-67	127	113	38	31	12	13	5	1	100	27	127	103	125	107
1967-68	128	114	40	31	13	12	5	1	99	29	128	103	134	108
1968-69	125	109	36	27	14	8	5	1	98	26	125	101	124	105
1969-70	131	109	41	32	15	11	5	1	103	28	131	106	133	111
1970-71	133	117	42	33	16	11	5	1	102	31	133	106	145	113
1971-72	127	113	38	30	15	8	6	1	94	32	127	98	150	107
1972-73	123	111	36	30	14	8	6	1	95	28	123	98	132	104
1973-74	132	116	*	33	15	10	6	1	102	31	132	105	144	112
1974-75	133	115	44	33	16	10	7	1	102	31	133	105	145	112
1975-76	130	112	45	34	16	11	6	1	105	25	130	109	115	110
1976-77	119	106	42	34	16	11	6	1	95	23	119	98	110	100
1977-78	125	110	44	34	16	9	7	1	100	25	125	103	118	106
1978-79	131	113	*	37	17	11	7	1	104	27	131	108	126	111
1979-80	123	105	42	32	16	7	7	1	96	27	123	99	127	104
1980-81	123	107	*	35	17	9	8	1	96	27	123	99	128	104
1981-82	130	113	*	37	18	10	8	1	101	29	130	104	138	110
1982-83	128	110	35	35	17	9	8	1	97	31	128	100	144	108
1983-84	134	107	51	39	18	11	8	1	89	33	134	92	153	113
1984-85	122	105	45	35	18	8	8	1	89	33	122	92	154	103
1985-86	121	104	43	35	18	8	9	1	88	34	121	90	158	103
1986-87	117	100	44	36	18	8	8	2	86	31	117	89	144	99

Note:
* information not available in the source.

Source:
Bureau of Economics and Statistics, Statistical Abstract of Andhra Pradesh, Hyderabad, Various Issues

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Table 4.16: Index Numbers of Area under Crops in Andhra Pradesh (1960-61=100)

Year	Food Grains	Rice	Jowar	Bajra	Ground Nuts	Cotton	Chillies	Sugar cane	Tobacco
1960-61	100	100	100	100	100	100	100	100	100
1961-62	96	94	106	84	125	139	144	127	109
1962-63	101	96	118	99	129	151	126	142	81
1963-64	103	88	136	110	123	107	95	99	116
1964-65	114	109	141	125	101	118	105	99	109
1965-66	107	110	120	110	130	99	135	125	98
1966-67	110	116	127	109	128	99	134	125	123
1967-68	110	124	124	102	138	98	135	136	123
1968-69	109	120	128	100	132	82	101	135	112
1969-70	115	128	132	110	99	74	80	131	122
1970-71	115	131	129	106	85	66	83	146	111
1971-72	112	126	133	104	83	76	93	161	110
1972-73	120	144	132	113	81	84	84	169	124
1973-74	112	129	118	99	97	90	86	160	128
1974-75	115	141	128	99	97	103	133	226	162
1975-76	116	146	123	100	112	91	125	256	127
1976-77	108	133	121	89	127	68	104	239	117
1977-78	115	141	125	110	122	75	140	191	148
1978-79	114	144	123	99	141	78	149	217	159
1979-80	110	130	133	96	122	73	128	275	176
1980-81	116	140	135	101	142	78	138	279	157
1981-82	117	149	142	98	152	77	166	211	170
1982-83	107	129	125	88	158	81	153	210	183
1983-84	108	124	141	85	146	72	115	237	171
1984-85	116	143	136	98	143	95	143	253	181
1985-86	116	151	126	97	151	101	127	344	136
1986-87	121	165	118	104	137	63	114	259	120
1987-88	109	151	101	94	108	70	104	258	144

Agricultural production in Andhra Pradesh registered a rise. The index of food grains production had increased from 100 in 1960-61 to 152 in 1970-71, 186 in 1980-81 and to 1228 in 1985-86. The increase in food grains production has come through increase in productivity especially after mid sixties as is evident from figures on Gross and Net Sown Areas. The interesting feature is that after mid seventies the Net Sown Area had shown a declining trend. The decline in Net Sown Area was very sharp during eighties.

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Between 1961 and 1981 the Gross Sown Area and Net Sown Area had remained constant. But during the eighties they registered a decline . There was a shift in the cropping pattern from the food crops to non-food crops. This was especially so in the eighties.

Thus, we can summarise the cropping pattern in Andhra Pradesh between 1961-87. The Net Sown Area and Gross Sown Area had remained constant between 1961-81 and during eighties especially during mid eighties there had been a declining trend in the net and gross sown areas indicating a shift from using land for cultivation to non-cultivation purposes. And within the cultivated land there was a shift from food grains to non-food crops especially during eighties. Though the area under food grains had declined the are under rice had been increasing since sixties. This was especially so during seventies and eighties.

To sum up, in this section the following points have emerged: There was a high workforce participation in Andhra Pradesh. Between 1961 and 1991 the share of the primary sector in the total workforce increased from 79 percent to 83.5 percent. Whereas the share of the tertiary sector remained by and large constant, at around 9 percent, that of the secondary sector had declined from 11.4 percent to 7.0 percent.

The share of agricultural labourers in the total workforce had increased over time. In the non-agricultural sector the share of household industry had declined and that of non-household industry

ie. trade & commerce and other services, had increased during this period.

The distribution of operated area was highly skewed . Between 70 to 75 percent of the operational holdings were from the small and marginal categories. They were part cultivators and part-wage labourers. They also formed part of the stream of migrants to the urban areas.

After mid seventies, the net sown area in the state started showing a declining trend. Although agriculture was increasingly getting commercialised it was not able to absorb the fast growing rural labour force. Neither the rural household sector could provide employment to the burgeoning labour force. Hence, they had no alternative but to seek employment in the urban labour markets.

FACTORS UNDERLYING THE PATTERNS OF Urbanization AT REGIONAL LEVEL:

So far a major portion of the analysis of changes in rural and urban areas and their relation to urbanization ran at the macro (state) level. Since there were regional differences in the patterns of urbanization, it is useful to see how far they were influenced by the regional specificities. We shall take up the following factors for a detailed analysis:

(i) Structure of employment;

(ii) Industrial development and dispersal; and

(iii) Agricultural development analyzed in terms of (a) Landholding pattern; (b) changes in cropping pattern; (c) Development of

irrigational potential and (d) Organisation of production.

(i) **Structure of Employment**:

The basic features of employment that we observed at state level are also noticeable at the regional and sub-regional levels with one or two exceptions. Table 4.21 provides information regarding the structure of total employment at regional levels in Andhra Pradesh (All the table are given in Annexure-2).

(a) At regional level we can observe that only in Coastal Andhra the share of primary sector had increased between 1961-91 and in Telangana and Rayalaseema it had declined. However, in Rayalaseema the share of primary sector was above 75 percent and in Coastal Andhra and Telangana regions it was between 70-75 percent. That means that the shares of secondary and tertiary sectors were high in Coastal Andhra and Telangana as compared to Rayalaseema. In Coastal Andhra the numbers of cultivators had declined from 30 to 28 lakhs between 1961-91. But in the other two regions there was an increase in the number of cultivators between 1961-91. The rapid increase in agricultural labourers and decline in cultivators was one of the most important feature of workforce structure in Coastal Andhra. Though the rest of two regions also had experienced the same changes the rates of their change were low.

(b) The share of secondary sector had been declining in all the three regions. However, in the Telangana region percentage share of secondary sector in total number of workers was relatively high and

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the rate of decline in the percentage share of secondary sector was relatively low as compared to other regions.

(c) The share of tertiary sector varied between 15-20 percent in Coastal Andhra and Telangana whereas in Rayalaseema it varied between 10-15 percent. In all the regions it was trade and commerce and other services categories along with transport and communication which had been increasing under the tertiary sector.

Among the sub-regions we can observe the following structural changes in employment.

(a) Except in North Coastal Andhra and Telangana-I in all the other sub-regions primary sector had shown an increase in its share of workers in total main workers. In these two regions the primary sector had a fall in its share of the total workforce. Except in Central Coastal Andhra and Telangana-I, in all other sub-regions, the workers in primary sector constitute nearly 70-80 percent of total workers and in Central Coastal Andhra and Telangana-I the share varies between 65-70.

(b) The shares of secondary sector in all the sub-regions had declined between 1961-91. However, the percentage of secondary sector workers was high in Telangana-I and II as compared to any other sub-region of Andhra Pradesh. Also, the decline was very marginal, only by two percentage points. However, between these two regions also some differences exist. In Telangana-I the share of household industry was very low and the share of non-household industry had a high percentage of workers as compared with

household industry workers. In all the sub-regions the share of household industry workers had been declining and that of non-household industry was on the rise.

(c) The share of tertiary sector was high in Telangana-I and Central Coastal Andhra and low in Telangana-II and Rayalaseema sub-regions. South Coastal Andhra and North Coastal Andhra fall in between the two. In all the sub-regions the share of tertiary sector had been increasing.

To sum up, the share of primary sector in total workforce showed a decline in both Telangana-I and North Coastal Andhra. In Rayalaseema, Telangana-II and Southern Coastal Andhra the shares of the primary sector were at a high level ie., between 75 to 76 percent of the total workforce. With in the primary sector, the share of cultivators had been declining and the share of agricultural labourers class had been increasing. However, in Central Coastal Andhra and North Coastal Andhra, the absolute number of cultivators had been steadily declining and hence its share in total workforce had declined at a faster rate.

The share of secondary sector workers was low in all the sub-regions except Telangana-I & II. Though in all the regions the share of secondary sector workers had been declining the rate of decline was slow in Telangana-I and II. That means that in Telangana-I & II the number of workers in secondary sector were high and had been increasing at a rate comparable with the total workforce. Within the secondary sector except in Telangana-II there had been a rapid decline in household industry workers. Telangana-

II had highest number of household industry workers. The share of household industry workers had declined at a slower in Telangana-II as compared to any other sub-region. Non-household industry workers had been increasing in all the regions. Its share was high in Telangana-I followed by Central Coastal Andhra and Telangana-II sub-regions.

In the Tertiary sector, trade and commerce and other services categories dominate the total number of workers followed by transport and Communication in all sub-regions. The service sector had 15 to 20 percent of total workers in Central Coastal Andhra and Telangana-I regions followed by North Coastal Andhra in recent years. In the rest of the sub-regions the share of tertiary sector was between 10-15 percent of total workers only. These include Rayalaseema, South Coastal Andhra and Telangana-II.

Workforce Structure in Urban Areas:

Earlier, while analyzing the factors underlying the patterns of urbanization at the state level, we observed that during Seventies and Eighties industrialisation in Andhra Pradesh had gained momentum. Now we will see whether such a rapid industrialisation was uniform across all the regions and sub-regions in Andhra Pradesh. Also, we will analyze the structure of employment in urban areas at regional and sub-regional levels. We will also look into the possible relationship between industrialisation, structural change in employment in urban areas and rapid urbanization at regional and sub-regional levels. In the first Chapter we observed that during Seventies and Eighties all the regions except Central

Coastal Andhra had a rapid urban growth and in the South Coastal Andhra and Telangana-II regions the urban growth and urbanization were quite noticeable. Do they have an association with changes in structure of employment in urban areas?.

At regional level we can observe differences in the workforce participation rates at regional level. Workforce Participation rates were higher in Coastal Andhra and Rayalaseema as compared to that of the state. In the Telangana region Workforce participation rate was lower than the state average. Between the regions Workforce participation rate was high in Coastal Andhra region followed by Rayalaseema and Telangana. At sub-regional levels except in Central Coastal Andhra, South Coastal Andhra, Rayalaseema, in all other sub-regions the workforce participation rates were lower than the state average. Between 1961-91, except in Central Coastal Andhra in all other regions workforce participation rates had been declining.

Turning to workforce structure, we observe that even in urban areas the primary sector claimed between 20-25 percent of workforce in Coastal Andhra and Rayalaseema and 15-20 percent in the Telangana. Within the primary sector agricultural labourers predominate. In Central and South Coastal Andhra the agricultural labourers dominate the primary sector.

The share of secondary sector workers was high in Telangana-I and it had been increasing in Telangana-I and North Coastal Andhra. In all other regions the share of secondary sector workers had been declining.

At sub-regional levels we can observe that primary sector had 15-25 percent of workers in Rayalaseema, North Coastal Andhra, Central Coastal Andhra, South Coastal Andhra and Telangana-II. Its share had been increasing in South and Central Coastal Andhra. Within the primary sector agricultural labourers dominate the primary sector workers. In Central and South Coastal Andhra in the agricultural labour class dominate the primary sector and also the share of primary sector had been increasing. The share of secondary sector workers had been increasing in North Coastal Andhra and Telangana-I. In the rest of the sub-regions the share of secondary sector had been declining. The share of primary sector had been increasing in all the sub-regions except Telangana-I and its share was high in Telangana-I and North Coastal Andhra followed by South and Central Coastal Andhra. In the rest of the sub-regions its share was between 40-45 percent of total urban workers. The share of tertiary sector had been high in Telangana-I, North Coastal Andhra and Central Coastal Andhra. Within the tertiary sector, other services; trade and commerce; and transport and communication dominate.

Industrial Development and Dispersal:

From the structure of employment in urban areas we will now move on to industrial dispersal among regions and sub-regions of Andhra Pradesh. There were regional disparities in industrial development of the state. To analyze this we use four indicators viz., (a) Number of factories; (b) Fixed Capital; (c) Number of employees and (d) Value Added etc. in regions and subregions of Andhra Pradesh.

From Table 4.23 we can observe that in 1974-75 nearly 58 percent of total factories were in Coastal Andhra followed by 27 percent in

Telangana and 15 percent in Rayalaseema. By 1980-81, the picture had changed to 33 percent (Coastal Andhra), 55 Percent (Telangana) and 9 percent(Rayalaseema). By 1983-84 these shares had changed to 33%, 58%, 9% respectively.

With regard to Fixed Capital there was an increase in the shares of Coastal Andhra and Rayalaseema regions between 1973-84 (From 19 to 22 percent in Coastal Andhra and 3 to 5 percent in Rayalaseema) and a decline in the shares of Telangana (from 77 to 73 percent). However, the fact that nearly 75 to 80 percent of fixed capital was still in Telangana region indicates its concentration in one region.

The percentage shares of employees had declined in Coastal Andhra (from 52 to 36) and Rayalaseema (from 7 to 6) and the shares of Telangana had increased (from 41-59 percent). The percentage shares of Value Added also had declined between 1974-84 in Coastal Andhra (from 39-30 percent) and in Rayalaseema it had remained stagnant (around 6 percent). In Telangana the percentage shares had increased (from 55-64 percent).

The concentration of industrial development will become clear from the following statistics. In 1983-84 nearly 43.8 percent of fixed capital was invested in Hyderabad district alone. In 1983-84 nearly five districts viz., Hyderabad(40.8%) Visakhapatnam (12%) Ranga Reddy(8%) Medak (8%) and Karimnagar (6%) had nearly 77 percent of the total fixed Capital. Nearly four districts viz., Hyderabad (27.7%) Ranga Reddy(17.7%) Visakhapatnam (8.6%) and Medak(7.6%) had nearly 61 percent of the total value added. Out of the total

employment nearly five districts viz., Nizamabad(14.2%) Hyderabad(13.6%) Guntur(9%) Ranga Reddy(9%) and karimnagar(7%) had 53 percent of the total factory employment in Andhra Pradesh [Lakshminarayana and Swaminathan (1990)]. Thus, from the structure of employment in urban areas and the distribution of fixed capital it is clear that there was a heavy concentration of industries in a few regions ie Telangana and in North Coastal Andhra.

The shares of the primary and the secondary sectors in the rural workforce had declined between 1961 and 1991 in the regions and sub-regions of the state. As for the share of the tertiary sector at the state level it showed a fall with some fluctuations. As for its behaviour in the regions, only in Rayalaseema the share of the tertiary sector the rural workforce showed a rise. In the other regions and sub-regions this share had fallen between 1961 and 1981. In 1991, however, it had registered a rise.

(iii) Agricultural Development:

(a) Land Holdings:

From Table 4.25 we can analyze the structure of land holdings in regions and sub-regions of Andhra Pradesh.

In Coastal Andhra both the number and area under the small and marginal land holdings, were larger compared to Telangana and Rayalaseema. In all the three regions of the state, the inequality in the distribution of operational holdings and the area operated was high. However, in Coastal Andhra as compared to Telangana and

Rayalaseema number of marginal and small holdings was large, land was also concentrated in a few large holdings. The same pattern holds good for the sub-regions as well. Inequitable distribution of land leads to the emergence of a large wage-labour, which migrates to urban areas strengthening the process of urbanization. Also, agricultural surpluses which are generated would accrue to richer cultivators. We call this as the duality process.

Now we will turn to changes in the agricultural sector at regional and sub-regional levels. Regional disparities in agricultural growth had widened in Andhra Pradesh. This was especially so in terms of irrigation potential, input use (fertilisers), and contribution to state agricultural production. For instance 6 out of 23 districts Viz., East Godavari, West Godavari, Nellore, Prakasam, Chittoor and Nalgonda accounted for 75 percent of the incremental rice production in the post-HYV period [Subrahmanyam et., al (1990) Quoted in Radhakrishna (1991). There was a concentration of irrigation facilities in a few regions. The major irrigational projects like Nagarjunasagar, Pochampadu, Nizamsagar etc had benefited the districts of Guntur, Nalgonda, Prakasam, Khammam, Karimnagar, Warangal, Nizamabad, etc. Thus, during seventies and eighties these districts had increased their share in agricultural production. This skewed development of irrigational potential in a few districts led to their development but the other regions remained backward.

In Central Coastal Andhra and Rayalaseema regions the Net Sown Area had been declining. In all other sub-regions it had been increasing. This was prominently so in Telangana-II and South Coastal Andhra and it was marginally the case in North Coastal

Andhra. Earlier we have also observed that in Central Coastal Andhra the number of cultivators had been declining. Thus the decline both in Net Sown Area and the number of cultivators indicate that there had been a shift in land-use pattern from cultivation to non-cultivation purpose.

Southern Coastal Andhra and Telangana-II had sown an increase in Area under irrigation, Net Sown Area, Change in cropping pattern from food grains to non-food grains, increase in the case of agricultural machinery and implements. These regions also had a high inequality of land holdings. Hence, in these two regions the duality process was strengthened. Also these regions had an increase in number of factories, fixed capital, employment etc. This explains the emergence of a large number of new towns, high migration and hence higher urban growth etc. In Central Coastal Andhra we observed a shift in using the land for non-cultivation purposes like fish farming, prawn cultivation etc.

In the other sub-regions ie Rayalaseema, Telangana-I and North Coastal Andhra there was only a marginal or no change in the agricultural sector. The presence of a large number of small and marginal farmers and a high inequality in the distribution of land holdings indicate the existence of a dual process which may lead to higher levels of urbanization.

To sum up, in this chapter we have tried to explain the patterns of urbanization and identify the factors behind them by analyzing the development process in the state and its manifestation in structural changes in employment, output, changes in rural and

urban areas, industrial and agricultural development. Emphasis was laid on the regional patterns and the factors behind them by focusing on the deviations of regions from the patterns observed at the state level. We tried to see how the deviations explain the regional patterns.

We observed that in terms of output, the economic structure of the state had changed; the share of agricultural sector had declined and the shares of industry and tertiary sector in the state NDP had increased. However, the changes in the structure of output were not accompanied by corresponding changes in the structure of employment. In terms of employment the shares of agricultural and non-agricultural sectors had remained same. Interestingly even though the manufacturing sector had shown a high growth rates, shares of secondary sector in the total workforce had declined. This is mainly due to the low level of industrialisation. The major absorber of the rising workforce was the tertiary sector. Within the tertiary sector it was mainly in urban informal sector that the majority of the workforce was absorbed. This is reflected in the fact that a large segment of those who were working in this sector are here because of the lack of alternative employment in the formal tertiary and industrial sectors. The main force behind the rapid growth of industrialisation and migrants to urban areas was the presence of a dual process in rural areas which produces the surpluses in the hands of a few and flushes out the agricultural labourers to the non-agricultural activities. This dual process was the main factor behind the rapid urbanization in the state. This was juxtaposed by the spatial duality in the development process i.e., concentration of industrial and agricultural development in

a few regions leading to the concentration of urbanization.

Both these patterns seem to be present in Andhra Pradesh at regional levels. The duality in the development process albeit with different degrees was the main factor behind the patterns of urbanization at regional levels. The differences in the degree of duality were due to the fact that it is rooted in the inequality in the distribution of landed assets and wealth. However, it is only a necessary condition. The sufficient conditions are satisfied with the forces that strengthen the duality process such as changes in agriculture, technology, nature of entrepreneurship and their investment activities.

Annexure-2

Table 4.17: Structure of Total Workforce in Regions and Sub-Regions of Andhra Pradesh. 1961-1991 (Percent)

Region Sub-Region	Years	Population	Main Workers	I	II	Vi	Va	Vb	VI	VII	VIII	IX	Primary Sector	Secondary Sector	Tertiary Sector
Andhra Pradesh	1961	359.8	100	40	29	3	10	3	1	4	1	9	72	13	15
	1971	435.0	100	32	38	4	5	4	2	5	2	8	74	11	15
	1981	535.5	100	33	37	3	5	5	1	6	3	7	72	11	16
	1991	665.1	100	28	41	3	3	5	2	7	3	9	71	10	18
Coastal Andhra	1961	163.4	100	36	31	4	9	3	1	5	2	10	71	13	16
	1971	197.2	100	29	42	3	4	4	1	6	3	8	74	10	17
	1981	237.4	100	29	40	3	4	6	1	6	3	7	72	11	17
	1991	287.3	100	23	46	3	3	5	1	7	3	9	72	9	20
Telangana	1961	127.1	100	42	25	3	10	3	1	4	1	10	70	15	15
	1971	158.2	100	35	33	5	6	5	2	5	2	8	72	12	15
	1981	201.8	100	35	32	3	6	6	2	6	2	8	71	13	16
	1991	260.9	100	31	36	3	4	7	2	7	3	9	69	13	18
Rayalaseema	1961	69.3	100	46	29	2	10	1	1	4	1	7	76	13	11
	1971	79.6	100	35	40	3	5	3	2	5	2	6	78	9	13
	1981	96.3	100	36	38	2	4	4	1	5	2	6	76	10	14
	1991	116.9	100	32	41	2	3	4	2	6	2	8	75	8	16
Northern Coastal Andhra Pradesh	1961	46.3	100	50	24	3	7	2	0	4	1	9	77	9	14
	1971	54.0	100	41	33	3	5	3	1	5	3	8	77	8	15
	1981	63.4	100	42	28	3	4	5	1	6	3	7	73	10	16
	1991	77.2	100	36	32	3	3	4	1	7	3	10	71	9	20
Central Coastal Andhra Pradesh	1961	96.7	100	28	36	4	9	3	1	5	2	11	68	14	18
	1971	108.0	100	22	46	3	4	6	2	7	3	9	71	11	18
	1981	130.6	100	22	45	3	4	6	1	7	4	8	70	11	19
	1991	158.6	100	17	51	2	2	5	1	8	3	9	70	9	21
Southern Coastal Andhra Pradesh	1961	20.3	100	39	29	4	12	1	1	4	1	8	72	14	14
	1971	35.3	100	27	44	5	4	4	1	5	2	7	76	10	14
	1981	43.4	100	29	44	3	4	4	2	5	2	6	76	10	14
	1991	51.5	100	24	49	3	3	4	2	6	2	8	76	8	16
Telangana-I	1961	64.6	100	40	25	3	10	3	2	5	1	10	68	15	17
	1971	80.1	100	34	31	4	5	5	2	7	3	10	69	12	19
	1981	103.7	100	35	29	3	4	7	2	7	3	10	67	13	20
	1991	139.0	100	30	33	2	2	8	3	8	4	10	64	14	22
Telangana-II	1961	62.6	100	43	25	3	11	3	1	3	1	9	72	15	13
	1971	78.1	100	36	34	5	6	4	2	4	1	7	75	13	12
	1981	98.1	100	36	35	4	7	4	1	4	2	6	75	13	12
	1991	121.9	100	32	39	4	6	5	1	5	2	7	74	13	13

Note: Same as for Table 4.3.
Source: Same as for Table 4.3.

Region Sub-Region	Years	WPR	Main Worker	I	II	III&IV	Va	Vb	VI	VII	VIII	IX	P	S	T
Andhra Pradesh	1961	36.0	100	8.1	8.7	2.7	12.0	12.4	4.0	14.9	7.7	29.6	19.5	28.3	52.2
	1971	30.7	100	5.6	10.6	2.9	5.5	16.7	5.0	20.2	10.9	22.6	19.1	27.2	53.8
	1981	30.4	100	4.7	10.9	2.5	5.7	18.1	4.4	19.9	11.6	22.1	18.1	28.3	53.7
	1991	30.3	100	3.5	12.6	3.0	3.9	16.0	5.4	21.0	10.3	24.3	19.1	25.3	55.6
Coastal Andhra	1961	36.5	100	7.9	9.5	2.3	11.2	13.5	2.8	15.6	8.9	28.4	19.7	27.5	52.9
	1971	31.2	100	5.9	13.0	2.1	5.3	17.3	4.3	20.3	11.7	20.1	21.0	26.9	52.1
	1981	31.2	100	5.0	13.4	1.9	5.7	17.6	3.9	20.2	13.1	19.3	20.3	27.1	52.6
	1991	31.6	100	3.7	16.5	2.1	3.4	14.8	4.2	20.5	11.2	23.6	22.4	22.4	55.3
Telangana	1961	34.8	100	6.9	6.1	4.0	9.5	12.6	5.9	14.4	6.7	34.0	17.0	27.9	55.1
	1971	29.8	100	4.7	6.6	4.3	4.4	17.0	5.5	19.5	10.8	27.1	15.6	26.9	57.5
	1981	29.3	100	4.1	6.9	3.8	4.8	19.7	4.5	19.5	10.2	26.6	14.7	29.0	56.2
	1991	28.8	100	2.8	7.7	4.4	3.5	18.2	6.5	21.4	9.6	26.0	14.8	28.3	56.9
Rayalaseema	1961	37.4	100	11.0	12.0	1.2	19.2	9.1	3.0	14.0	6.8	23.6	24.2	31.3	44.4
	1971	31.8	100	6.7	13.7	1.5	8.9	13.9	5.7	21.4	9.1	19.0	21.9	28.6	49.5
	1981	31.0	100	5.5	13.7	1.0	8.2	16.0	5.3	20.2	11.1	19.0	20.2	29.5	50.3
	1991	31.0	100	4.7	15.3	1.5	6.5	13.2	5.5	21.2	9.8	22.1	21.6	25.2	53.1
Northern Coastal Andhra Pradesh	1961	36.0	100	12.3	7.3	3.5	9.0	8.5	2.8	15.0	10.2	31.3	23.2	20.3	56.5
	1971	29.8	100	7.6	10.9	2.5	3.9	13.3	4.3	18.4	14.8	24.3	21.0	21.6	57.4
	1981	28.8	100	5.7	8.2	2.4	5.2	16.1	4.1	19.5	16.4	22.4	16.3	25.4	58.3
	1991	29.9	100	3.8	9.4	2.5	2.4	15.9	5.3	19.0	12.4	29.3	15.8	23.5	60.7
Central Coastal Andhra Pradesh	1961	36.5	100	6.6	10.0	1.9	11.5	15.5	2.8	15.8	8.7	27.2	18.4	29.9	51.7
	1971	31.4	100	5.1	13.2	2.1	5.0	19.0	4.4	21.0	11.4	18.8	20.4	28.4	51.2
	1981	31.6	100	4.3	14.6	1.8	5.0	18.3	3.8	20.8	12.9	18.5	20.7	27.1	52.2
	1991	32.2	100	3.3	18.8	2.1	2.9	15.0	3.7	21.3	11.3	21.6	24.3	21.6	54.2
Southern Coastal Andhra Pradesh	1961	37.8	100	7.3	11.0	2.2	14.4	10.2	2.2	15.7	7.2	29.8	20.5	26.8	52.7
	1971	32.8	100	6.8	15.2	1.6	8.8	15.8	4.1	20.3	7.6	19.7	23.7	28.7	47.6
	1981	33.3	100	6.4	16.2	1.5	9.5	16.4	4.1	19.2	9.0	17.6	24.2	30.0	45.8
	1991	32.9	100	5.1	19.4	1.5	7.1	12.3	4.4	19.8	8.5	21.9	26.0	23.8	50.2
Telangana-I	1961	33.1	100	4.7	5.4	1.4	7.8	11.8	7.3	15.5	7.7	38.4	11.5	26.8	61.6
	1971	29.1	100	3.1	5.4	1.5	3.3	17.6	4.9	20.7	11.8	31.6	10.0	25.8	64.1
	1981	28.7	100	3.0	5.0	1.1	2.6	21.3	4.8	20.8	11.0	30.5	9.1	28.6	62.3
	1991	28.3	100	2.1	5.8	1.1	1.0	20.8	7.5	23.3	10.5	27.9	8.9	29.3	61.7
Telangana-II	1961	38.6	100	11.0	7.6	8.7	12.6	14.1	3.3	12.2	4.9	25.6	27.3	30.0	42.7
	1971	31.3	100	7.9	8.9	9.9	6.5	15.9	6.6	17.2	8.8	18.3	26.7	29.0	44.3
	1981	30.5	100	6.2	10.2	8.8	8.9	16.8	4.1	17.1	8.7	19.2	25.2	29.8	45.0
	1991	29.7	100	4.1	11.5	11.0	8.7	12.9	4.5	17.4	7.7	22.0	26.7	26.1	47.2

Note: Same as for Table 4.3

Source: Same as for Table 4.3

Table 4.19: Percentage Share of indicators of industrial development in regions and sub-regions of Andhra Pradesh.

Indicators	Years	COASTAL ANDHRA	ANDHRA	RAYALASEEM	TELANGANA	NORTH COASTAL ANDHRA	CENTRAL COASTAL ANDHRA	SOUTHERN COASTAL ANDHRA	TELANGANA I	TELANGANA II
Number of	1974-75	100	58	15	27	10	39	9	19	8
Factories	1975-76	100	55	14	31	10	37	8	19	11
	1976-77	100	46	13	41	8	31	7	18	22
	1977-78	100	46	13	41	8	31	7	19	22
	1978-79	100	46	13	41	8	31	8	20	21
	1979-80	100	36	9	55	6	24	5	18	37
	1980-81	100	36	10	54	6	25	6	18	36
	1981-82	100	34	9	57	6	23	5	20	37
	1982-83	100	31	9	60	5	21	5	19	41
	1983-84	100	33	9	58	6	23	5	21	37
Fixed Capital	1974-75	100	19	3	77	10	9	1	73	4
	1975-76	100	21	3	76	11	9	1	72	5
	1976-77	100	17	3	80	8	8	1	76	5
	1977-78	100	20	3	78	11	8	1	73	4
	1978-79	100	20	2	78	11	8	1	74	4
	1979-80	100	17	5	77	8	8	1	66	12
	1980-81	100	17	5	79	8	7	1	62	16
	1981-82	100	16	4	79	8	7	1	63	16
	1982-83	100	17	4	79	10	7	1	65	14
	1983-84	100	22	5	73	12	8	1	62	12
Employees	1974-75	100	52	7	41	10	30	12	31	10
	1975-76	100	52	6	42	10	30	12	29	14
	1976-77	100	44	8	48	8	25	11	31	18
	1977-78	100	41	6	53	10	24	7	24	29
	1978-79	100	41	6	54	10	24	7	24	29
	1979-80	100	40	6	54	8	24	8	31	24
	1980-81	100	39	7	54	9	23	7	28	26
	1981-82	100	39	7	54	8	25	7	28	27
	1982-83	100	36	5	58	7	23	6	30	28
	1983-84	100	36	6	59	7	22	7	30	29
Value Added	1974-75	100	39	6	55	15	20	4	48	7
	1975-76	100	25	5	70	16	7	2	54	16
	1976-77	100	26	14	59	12	11	3	46	13
	1977-78	100	30	13	56	15	11	3	48	9
	1978-79	100	30	13	57	15	11	3	48	9
	1979-80	100	32	6	62	12	17	3	55	6
	1980-81	100	32	6	62	13	17	2	52	9
	1981-82	100	33	5	62	14	17	2	52	10
	1982-83	100	26	5	69	10	14	2	58	11
	1983-84	100	30	6	64	12	16	2	55	9

Source:
Bureau of Economics and Statistics, Statistical Abstract of Andhra Pradesh, Hyderabad, Various Issues.

Table 4.20: Structure of Rural Workforce in Regions and Sub-Regions of Andhra Pradesh. 1961-91 (Percent)

Region Sub-Region	Years	WPR	Main Worker	I	II	III & IV	Va	Vb	VI	VII	VIII	IX	P	S	T
Andhra Pradesh	1961	55.2	100.0	44.5	31.3	3.0	9.4	1.2	0.8	2.8	0.4	6.5	78.9	11.4	9.7
	1971	43.9	100.0	36.6	42.5	4.0	4.7	2.1	1.0	3.0	0.7	5.3	83.1	7.9	9.0
	1981	45.9	100.0	38.4	42.0	3.0	4.5	2.8	0.8	3.1	0.9	4.4	83.4	8.1	8.5
	1991	47.4	100.0	33.5	47.5	2.6	3.2	3.0	0.8	3.3	1.0	5.1	83.5	7.0	9.5
Coastal Andhra	1961	53.4	100.0	40.2	34.4	3.8	8.7	1.1	0.7	3.3	0.5	7.3	78.4	10.5	11.1
	1971	42.4	100.0	32.4	46.7	3.7	3.8	2.2	0.8	3.4	0.9	6.0	82.8	6.9	10.3
	1981	44.6	100.0	34.1	45.9	3.0	3.6	3.1	0.7	3.6	1.2	4.9	82.9	7.4	9.7
	1991	45.9	100.0	27.9	52.7	2.7	2.4	2.5	0.7	4.0	1.2	5.9	83.3	5.6	11.1
Telangana	1961	58.1	100.0	46.8	27.9	2.9	10.5	1.8	0.8	2.6	0.3	6.3	77.6	13.2	9.2
	1971	46.3	100.0	40.2	37.0	4.8	6.1	2.5	1.3	2.8	0.6	4.8	82.0	9.8	8.2
	1981	47.6	100.0	41.8	37.5	3.4	6.1	2.7	1.0	2.7	0.6	4.1	82.7	9.8	7.5
	1991	49.3	100.0	37.5	42.6	2.4	4.6	4.0	0.5	2.8	0.8	4.3	82.6	9.5	7.9
Rayalaseema	1961	54.3	100.0	50.2	30.8	1.5	9.0	0.4	0.8	2.2	0.3	4.7	82.5	10.2	7.3
	1971	43.4	100.0	39.4	43.8	3.0	4.2	1.0	1.0	2.5	0.6	4.6	86.1	6.2	7.7
	1981	45.5	100.0	41.3	42.2	2.5	3.2	2.3	0.8	2.7	0.7	4.1	86.1	6.4	7.6
	1991	46.8	100.0	37.7	45.9	2.5	2.2	2.0	0.8	2.9	0.9	5.0	86.1	5.0	8.9
Nothern Coastal Andhra Pradesh	1961	57.9	100.0	53.1	25.8	2.9	6.7	1.1	0.3	3.1	0.3	6.8	81.8	8.0	10.2
	1971	44.0	100.0	45.4	35.8	3.4	4.7	1.0	0.2	3.2	0.9	5.4	84.5	6.0	9.5
	1981	45.1	100.0	48.2	31.3	3.2	4.2	2.9	0.6	3.9	1.2	4.5	82.7	7.7	9.5
	1991	47.1	100.0	42.7	37.1	3.3	3.4	1.9	0.6	4.0	1.1	5.9	83.1	5.9	11.0
Central Coastal Andhra Pradesh	1961	50.9	100.0	32.2	40.3	4.4	9.1	1.2	1.0	3.3	0.6	7.9	76.9	11.3	11.9
	1971	41.6	100.0	26.2	52.5	3.4	3.4	2.7	1.0	3.5	0.9	6.4	82.1	7.1	10.8
	1981	43.8	100.0	27.0	52.8	2.8	3.3	3.3	0.6	3.8	1.3	5.1	82.6	7.3	10.1
	1991	44.8	100.0	20.3	60.1	2.3	2.1	2.9	0.6	4.2	1.4	6.1	82.7	5.6	11.7
Southern Coastal Andhra Pradesh	1961	54.3	100.0	41.5	31.0	3.9	11.7	0.7	0.8	3.3	0.7	6.4	76.5	13.2	10.4
	1971	42.0	100.0	29.5	47.6	5.0	3.8	2.7	1.2	3.2	1.1	5.9	82.1	7.7	10.2
	1981	45.9	100.0	32.9	47.9	3.1	3.7	2.5	1.1	2.9	1.0	4.7	84.0	7.3	8.6
	1991	47.5	100.0	27.4	54.6	3.0	2.0	2.2	1.0	3.3	1.1	5.4	85.1	5.2	9.8
Telangana-I	1961	58.8	100.0	47.6	29.0	2.9	10.4	1.2	1.0	2.8	0.3	4.9	79.4	12.6	8.0
	1971	47.1	100.0	41.4	37.2	5.1	5.7	1.7	1.1	3.1	0.5	4.3	83.7	8.4	7.9
	1981	47.2	100.0	44.3	36.0	3.4	5.0	2.6	0.9	3.0	0.7	4.0	83.7	8.6	7.7
	1991	48.9	100.0	39.5	42.5	2.3	3.0	3.8	1.0	3.1	1.0	3.9	84.3	7.8	7.9
Telangana-II	1961	57.6	100.0	46.1	27.0	2.9	10.7	2.3	0.7	2.4	0.3	7.6	76.1	13.7	10.3
	1971	45.5	100.0	39.1	36.7	4.7	6.4	3.2	1.5	2.5	0.6	5.3	80.5	11.1	8.4
	1981	47.9	100.0	39.8	38.8	3.4	6.9	2.8	1.0	2.5	0.6	4.2	82.0	10.8	7.3
	1991	49.7	100.0	35.8	42.7	2.5	6.0	4.1	0.8	2.6	0.7	4.7	81.0	11.0	8.0

Note: Same as for Table 4.3
Source:Same as for Table 4.3.

Table 4.21: Percentage of Holdings and Area Operated Under Major Heads in Regions and Sub-region of Andhra Pradesh.

State/ Regions/ Sub-region	Years	Marginal (>1 hect) Hold	Area	Small (1-2 Hect) Hold	Area	Semi-Medium (2-4 He) Hold	Area	Medium (4-10 Hect) Hold	Area	Large (10+ Hect) Hold	Area	Total (All Category) Hold	Area
Andhra Pradesh	1970-71	46	8	20	11	17	19	13	31	4	31	100	100
	1976-77	47	9	20	13	17	21	12	32	3	25	100	100
	1980-81	52	13	22	17	16	23	9	28	2	20	100	100
Coastal Andhra	1970-71	57	14	19	16	14	21	8	29	2	19	100	100
	1976-77	56	15	20	17	14	24	8	28	2	15	100	100
	1980-81	62	21	20	21	12	24	6	23	1	12	100	100
Rayalaseema	1970-71	36	5	22	10	21	19	15	30	6	36	100	100
	1976-77	36	6	23	11	21	19	15	32	5	32	100	100
	1980-81	40	8	24	15	21	22	12	29	4	27	100	100
Telangana	1970-71	39	6	19	9	20	18	16	32	6	35	100	100
	1976-77	40	7	20	10	19	19	16	35	5	28	100	100
	1980-81	46	10	22	16	18	21	11	31	3	22	100	100
North Coastal Andhra	1970-71	64	19	18	19	12	25	6	25	1	12	100	100
	1976-77	61	19	20	22	13	26	6	25	1	9	100	100
	1980-81	66	25	19	22	11	25	4	18	1	9	100	100
Central Coastal Andhra	1970-71	56	14	20	16	14	22	8	29	2	19	100	100
	1976-77	58	16	20	18	14	24	7	28	1	14	100	100
	1980-81	62	21	19	20	12	24	6	24	1	11	100	100
South Coastal Andhra	1970-71	49	10	20	13	16	17	12	33	3	27	100	100
	1976-77	47	11	21	14	17	22	12	32	3	22	100	100
	1980-81	54	16	22	19	14	23	8	24	2	17	100	100
Telangana-I	1970-71	30	4	19	7	21	16	20	32	9	41	100	100
	1976-77	35	5	20	9	21	18	18	35	6	33	100	100
	1980-81	39	7	23	14	20	18	14	33	4	27	100	100
Telangana-II	1970-71	45	8	20	11	18	20	13	33	4	29	100	100
	1976-77	45	9	19	11	19	21	14	36	3	23	100	100
	1980-81	51	14	22	18	17	25	8	28	2	16	100	100

Source:
Bureau of Economics and Statistics, <u>Andhra Pradesh Statistical Abstract</u>, Hyderabad, Various Issues.

CHAPTER V

SUMMARY AND CONCLUSIONS

Urbanization is a socio-economic outcome of the process of economic development. It represents the spatial dimension of the development process. The process of urbanization is a complex phenomenon and it differs across space and time. This underlines the need to analyze its complexity and identify the factors at regional levels.

The existing literature on urbanization in Andhra Pradesh highlighted two different but interrelated processes of urbanization. Koteswara Rao (1987) highlighted the "shift in the spatial pattern of urbanization away from the traditional areas of urban growth" and another major study by Nagaraj (1985) highlighted the duality in the process of urbanization in Andhra Pradesh ie., stable pattern of urbanization in Central Coastal Andhra consisting of the deltaic districts of Krishna, East Godavari and West Godavari and unstable pattern in the rest of the state. He attributes the duality to the concentration of industrial and agricultural development in a few pockets in Andhra Pradesh. However, these studies provided some interesting hypothes explaining the patterns of urbanization in 'Andhra Pradesh. The present study is essentially an extension of the earlier studies. But care is taken to analyze the issues on hand in greater detail. Besides, some of the aspects which were either not discussed at length in the earlier studies or ignored altogether are given primacy of importance. The quantitative dimension of the role of migration in the observed patterns and processes of urbanization,

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the employment aspects especially the structure of employment and changes thereof, the functions that urban centres were performing in relation to rural areas are some of the issues which are taken up for a detailed analysis in the present study.

Andhra Pradesh was one of the states with low levels of urbanization. However, it entered the phase of rapid urbanization in sixties. Its momentum during seventies and eighties had come through higher levels of migration with constant number of towns, increasing primacy and high growth rates of all size classes of towns. There were well marked differences in the patterns of urbanization both across space and time.

During the Sixties there was stable pattern in Central Coastal Andhra and an unstable pattern in the rest of the state. During seventies and eighties the state had shed its unstable pattern and entered the stable pattern in some other sub-regions like South Coastal Andhra and Telangana-II. Along with stable pattern the state also witnessed the emergence of new urban agglomerations, expansion of existing urban agglomerations and new isolated towns. Migration had played an important role in stability and instability as well as lower and higher rates of urbanization. As compared to the sixties in the seventies and eighties migration had played an important role in higher rates of urbanization. However, natural growth rate of population was also behind the high urban growth. Nearly 50 to 60 percent of urban growth in Andhra Pradesh was due to natural increase of population in these areas.

These changes in the patterns of urbanization had taken place when the economy of Andhra Pradesh had undergone rapid changes in the structure of output i.e., when the shares of primary sector had declined and those of the secondary and tertiary sectors had increased. Especially the manufacturing sector had a very high growth rates during late seventies and eighties. However, the changes in the structure of output were not accompanied by changes in the structure of employment. The shares of agricultural labourers and the service sector had increased. Interestingly, even in the urban areas we do not find any major changes in the structure of employment, except the fact that the tertiary sector had absorbed a major chunk of urban labour force.

The failure of the secondary sector to absorb the growing labour force and thereby bring structural changes was mainly because of a very high growth rate of labour force with workforce participation rates, low levels of industrialisation, changes in the structure from agro-based with low capital intensive to a non agro-based and high capital intensive industrialisation, and regional concentration of industrialisation. Because of the failure of the secondary sector, tertiary sector had absorbed the growing labour force, but only in informal service sector activities like retail trade (in grain and grocery, fruits and vegetable selling etc) land transport (in transport by vehicles, Motors, rickshaw pullers, handcart pullers, coolies and porters etc.,) public administration, defense, sanitary and health, research services; and in personal services (in hair dressing, domestic services etc). This reflects the nature of job seekers in urban areas. It is more of an 'informal' service sector where people who come to city, due to

lack of employment opportunities in the formal industrial and
service sectors, get themselves absorbed in it.

However, the presence of service sector was dominant in the medium
and small towns and cities to some extent. In cities industry
dominates for it is their main function reflecting the
concentration of economic activities. Nearly 30-40 percent of the
total number of towns were mainly service towns in Andhra Pradesh,
with the predominance of small and medium towns. The dominance of
service function in small and medium towns was mainly because of
the fact that migrant labourers who could not find employment in
rural areas move to the nearby towns, especially small and medium
towns.

The rural areas of Andhra Pradesh were undergoing transformation
with a dual process. One, further enriching the elite and the other
producing a large number of labourers dependent on agricultural
sector. These agricultural labourers, when they couldnot find
employment in rural areas move to urban areas in search of jobs.
However, as the urban areas could not provide enough employment
opportunities in the formal secondary and service sectors, they get
themselves absorbed in the 'informal' service sector. Thus, the
dual process in rural areas had become the major factor behind the
movement of people to urban areas leading to further urbanization.
Interestingly, the same process also provided stimulus to rapid
industrialisation in Andhra Pradesh. There was a flow of surplus from
agriculture, through the entry of rich peasants, into industry
~~which~~ facilitating rapid industrialisation. Thus, the dual process
had an important role in rapid industrialisation and urbanization

in Andhra Pradesh. However, it was not the rapid industrialisation but the dual process itself which had augmented the pace of urbanization.

Though the dual process was present since a long time, there was an intensification of the dual process since Seventies onwards. Thus, the intensification of the dual process had resulted in the widening of disparities in levels of living between cultivators and agricultural labourers. The result of the dual process and the widening of the disparities in the levels of living was summed up by Haragopal as follows: "The accumulated poverty and widening disparities on the one hand and growing prosperity on the other are bound to have their own role in shaping the events and the historical forces. In the first place it leads to increasing socio-political tensions and unrest"[1]. One of the manifestations of this growing tensions and unrest was the phenomenon of caste conflicts in many parts of Andhra Pradesh. Since earlier times the bulk of the labour class especially agricultural labour class were from the socially weaker sections and backward castes. The impact of these growing tensions and caste conflicts result in their migration from rural to urban areas. Most of the migrants who moved to cities, in recent times, were from these social groups who earlier on worked as agricultural labourers. Thus, the dual process, both directly through migration of the weaker sections of the society and indirectly through flow of resources and hence job creation and migration had resulted in higher levels of urbanization in Andhra Pradesh.

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[1]. *Haragopal G (1985)*

The main factors behind the dual process were the highly skewed pattern of land and asset holdings. Nearly 50 to 60 percent of total operated area was under large and medium holdings comprising 10 to 15 percent of total number. This highly skewed pattern of land holdings resulted in the dual process which got aggravated with the advent of Green Revolution. The gains from the agricultural growth were reaped by the large land holding class who could invest and reap the maximum benefits. The position of landless and agricultural labourers had deteriorated in relation to the land holding class. ~~Through~~ The advent of Green Revolution ~~will~~ increase the demand for labour because of intensive cropping and hence the higher wages of labourers will benefit the landless agricultural labourers. However, the fact that mechanisation of agricultural sector had taken place at an increasing rate and the movement of labourers from the agriculturally backward regions to the regions where the Green Revolution had made considerable progress could swell the supply of labourers weakening their bargaining power. Though the wages were higher in these agriculturally prosperous regions the position of labourers did not improve radically vis-a-vis the land holders. besides the agricultural labourers marginal and small farmer categories had also joined the labour force. This ~~lead~~ would have swelled the numbers in workforce weakening their bargaining power. The disparity in economic well-being of these groups would widen, leading to social conflicts and migration. For want of investment opportunities in the rural areas, the agrarian surplus in the hands of the medium and large farmers would be shifted to non-agricultural avenues, especially to urban areas. The cumulative effect of the mobilities of human and material resources to urban areas is to hasten up the

pace of urbanization. Thus the development process had a duality both spatially and in terms of gainers and losers. This duality in the development process had its roots in the basic structures. The duality got intensified in the course of the development paving the way for rapid urbanization in Andhra Pradesh.

The rapid industrialisation, although it couldnot bring rapid changes in the structure of workforce, had played an important role in the emergence of new towns especially small and medium towns. Also, the concentration of industrialisation led to the emergence of new urban agglomeration and the expansion of the existing urban agglomerations and the cities. This process was given a boost by the changes in the agricultural sector especially the advent of Green Revolution, the consequent expansion of business, trade and marketing activities relating to agricultural input and products; the changes in the cropping pattern towards non-food crops which had given boost to generation of surplus and increase in manufacturing activities in agricultural based industries etc. This had facilitated the emergence of new towns. Thus, these forces had an impact on the disappearance of unstable patten of sixties and the emergence of stable patterns thereafter; the emergence of a large number of new isolated towns, and urban agglomerations and their expansion.

However, at regional levels we observe different patterns. These include the stable but slow urban growth or urbanization in Central Coastal Andhra; stable and rapid growth of urbanization in Telangana-II and South Coastal Andhra; heavy concentration in a single city with rapid urbanization in the North Coastal Andhra and

Telangana-I sub-regions. Also during sixties except the Central Coastal Andhra all other sub-regions had unstable patterns and during seventies and eighties these unstable pattern had disappeared giving place to stable-cum-rapid growth of urbanization.

Among all the sub-regions, Telangana-II and South Coastal Andhra deserve special mention. They had a very high and unstable pattern with low levels of urbanization during sixties. However, during seventies and eighties not only the unstable patterns had disappeared but a stable pattern with high urban growth has emerged. Also, a large number of class-I towns and urban agglomerations had emerged in these two regions during the period of rapid urbanization. The rapid growth of industrialisation in Telangana-II region, the spurt in agricultural growth in Telangana-II and South Coastal Andhra had resulted in the rapid migration and urbanization in those regions. The efforts in the development of irrigation by the government had benefited the two regions. The major irrigation projects of Nagarjunasagar, Pochamapadu and Nizamsagar had benefited the two regions leading to agricultural development. In these two regions the consumption of agricultural inputs like fertilisers, pesticides had increased as also the agricultural production. Also the dual process seems to have been prevalent in these two regions. The share of the primary sector workers especially in the categories of agricultural labour had increased quite sharply. The secondary sector had remained either stagnant or ~~had~~ slightly declined. The share of the tertiary sector was very low in these two regions. Interestingly in these two regions a high incidence of marginal and small farmers with a small

share in the total cultivated land and a low incidence of medium and large farmers with a high share in the total cultivated land are the interesting features. Mechanisation also had taken place at a faster rate in these two regions. All these are indicators of the presence of the dual process.

In the regions of Telangana-I and North Coastal Andhra the rapid urban growth was mainly due to rapid industrialisation that had taken place in and around the two big cities in the two regions Viz., the Hyderabad and Visakhapatnam urban agglomerations respectively.

In Central Coastal Andhra, an agriculturally prosperous region, the dual process had been in operation for a long time. Though it had very high levels of urbanization the rate of urbanization seems to have slowed down. Thus the pattern here is a stable but slow urbanization due to low rural-urban migration. Also, the natural growth rate of population seems to be low in the-region as compared to other regions especially in Telangana-I and II and Rayalaseema.

The Rayalaseema region seems to have a low industrial and agricultural development. Though urbanization was low in this region there appear to exist considerable variations in patterns and the factors underlying the patterns at district levels. But broadly the backwardness of the region can be attributed to the urbanization patterns of the region.

Thus, the patterns and factors underlying them vary considerably between regions and also over a period of time. The duality in the

development process was the main factor behind rapid urbanization during seventies and eighties. This coupled with changes in the industrial and agricultural sectors provided the stimulus for the emergence of new towns and urban agglomerations.

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