

PROCESS AND CHARACTERISTICS OF URBANISATION IN NEPAL

Gopi Krishna Basyal
Narendra Raj Khanal

Introduction

Urbanisation refers to increasingly large number of people living in small places and basically engaged in non-agricultural activities, which depends on development of industrialization, infrastructure within cities, towns and their neighborhoods, thus urbanisation is considered as an index of modernization (Roy 1986:17; Singh 1987:49; Sharma and Maithani 1998:1). The economic system within a country generating migration opportunities to specific locations/regions is a refined input in urbanisation and urban growth as well. In ordinary language 'urbanisation' has a dual meaning. Demographers, economists, statisticians and geographers see urbanisation with specific views and tools in several ways. Demographers usually try to see urbanisation according to urban population, accretion of population in urban areas as 'percent of total population'. Economists usually try to relate population growth, pattern of defined technology on the process of urbanisation. Statisticians try to relate production functions, growth rates of urban population (Roy 1986: 17). Geographers consider urbanisation in relation to distribution of urban spaces and see proportions and the growth of urban population at different spatial context. But for present purposes urbanisation has been defined as the proportion of total population living in designated urban areas whereas urban growth refers the net growth of population in designated urban areas (Sharma 1989:19; Singh 1987: 49; Hauser 1961: 21).

Urban population growth is fueled by the differentials in urban-rural wage rate than in the rural areas, refers the greater productivity of labour force in cities (The World Bank 1995:12). In developing countries like Nepal, urbanisation is supposed to have come out because rural migrants have been

'pushed' rather than pulled into the urban areas, as a result of great and mounting population pressure in the rural areas.

Urbanisation in Nepal in terms of the rise in the proportion of the total population living in designated urban areas (i.e., municipalities, *nagarpanchayats*, *nagarpalikas* etc) is taking place due to the migration of people from rural to urban areas in search of employment seeking opportunities and helping to reduce the pressure of population on land in rural areas (Sharma 1992 :2,9). Urban areas function as focal points of commercial, industrial, administrative, recreational and social services required by the rural and urban population. Though urbanization has positive implications if urban areas are managed properly. But haphazard growth of urban areas results many environmental, health, and socio-economic problems and various social disorders. Increasing population in urban areas fails to supply educational and health facilities, and other services to meet the ever increasing demand.

In view of these circumstances, the need of planned and organized urbanisation has become a great concern as new urban areas have been added and proportion of urban population has been increasing. This paper aims to describe the processes and characteristics of urbanisation in Nepal

Methods and Materials

This paper focused on the spatio-temporal context of urbanisation in Nepal. The study is based on secondary sources of data. Population Census data of different period – 1952/54, 1961, 1971, 1981 and 1991 have been used. Data on different aspects for individual urban areas declared as urban after 1991 Census (between the period of 1992-97) were collected from unpublished printouts recorded in CBS and they were sorted and calculated according to the needs of study for each theme. First of all, names of VDCs which were incorporated in designated urban areas were listed and data were sorted according to the needs.

Urbanisation and Urban Growth in Nepal

A historical growth before 1951: The origin of urban settlements in Nepal is obscure. Very little is known about urban living in Nepal during the period of Kirants. The historical evidences on the existence of towns in The Kathmandu valley are found only for the Lichhavi period (100 BC to 1000 AD) (Malla 1978: 30). It has been noted that during the Lichhavi period there were many settlements in the Kathmandu Valley developed into a prominent commercial centre known as *dranga* in the 10th century. Turning of the 10th century, consolidation of *dranga* evolved into an urban settlement (Ranjitkar

1980-81: 26). By the eleventh century, three principle settlements in the Kathmandu Valley had already started to be referred to as capital towns. Outside the Kathmandu valley, there is was a scant indication of presence of (urban) settlement in the Lichhavi period, like Nuwakot, Dolkha, Banepa and Panauti (CEDA 1990: 24, Shrestha 1981: 12), located in the adjoining hill region around Kathmandu Valley.

During the Malla period (1257-1768 AD), Kathmandu was developed as an administrative and entrepot trade center between India and Tibet, which made Kathmandu a prosperous town. During the late medieval period, the whole of present Nepal was divided into a large number of Baisi and Chaubisi states which influenced urban growth pattern characterizing as capitals, fort towns and military garrisons (Shrestha 1981: 127). But most of these centers had no strong economic base because of trade and industry development hampered by fighting each other, however the products of handloom, metal and gold-silver ornaments were especially exported to Tibet. Apart from these, minting of coins and export to Tibet were the main functions of these towns.

After 1769, Kathmandu became the capital of unified Nepal as well as the seat of political, economic and social power. The productive agricultural base of Kathmandu valley and small scale industrial production of metal ware and textiles that further reinforced its population growth. (Sharma 1989:7). Outside the Kathmandu valley, many new settlements were developed largely as a consequence of increase in the number of those employed as officials, soldiers and menials in the towns to collect the revenue from peasantry and to recruit troops for the state's further expansion (Seddon 1993:146). Settlements, developed in this way were Tansen, Pokhara and Bandipur in the Western hills and Dolakha in the Eastern hills. Along with this, the spread of Newar traders and small manufacturers from Kathmandu during the later half of the nineteenth century further contributed to the physical and economic growth of a number of settlements in the hills (Blakie et al. 1980:123-4)

In the Tarai, the extension of Indian railway network along north to the border of Nepal around the turn of 19th century resulted in the growth of trading centers of the export of timber and local grain surpluses using these railheads (Blakie 1980: 125). However political, demographic and climatic reasons de-encouraged the growth of large permanent settlements in Tarai until 1920. The trade treaty of 1923 between Nepal and British-India had made positive impact on the growth of urban centers in Tarai. Most of the Tarai market centres had initiated as periodic markets; however such centres soon turned into permanent towns and the increasing importance of the southern

commercial centers significantly contributed by the increasing expansion of Indian market to the country. The industrial development that took place in Tarai during 1930s further enhanced the importance of southern towns (Shrestha 1981:131). The towns developed in Tarai before 1951 were Biratnagar, Birgunj, Nepalgunj, Hetauda and Janakpur at the railheads and break-up-bulk points, with the gradual integration of Hills into the Indian market. Another break-up-bulk points developed between Hills and Tarai were Dharan and Butwal. Further, the Rana government pursue the policy of locating headquarters of Tarai districts on the opposite side of or near the Indian railheads. Most of the headquarters of Tarai districts even today are located near the Indian railheads.

Contemporary Growth after 1951: The political change of 1951 had significant impact on the urban growth in Nepal, which ended the period of isolation. The country was opened to the out side world, transplantation of new ideas, and country's development plans were commenced. The country was divided into development regions. The development activities, most of which through foreign assistance, resulted the dramatic change in the growth of towns and urban centers in Nepal (Basyal 2000:31). The initiation of malaria eradication programme and the resettlement programmes in the late 1950s created the frame work for a large-scale migration of hill people to the Tarai. The economic importance of the Tarai region was manifested in the steady growth of physical as well as administrative infrastructure in large scales, which transformed former malarial area into a productive agricultural and commercial frontier. Besides, Hill-Tarai migration due to rich agricultural base in the Tarai, increase in the volume of trade with India, expansion of the state bureaucracy, and the creation of physical infrastructure contributed to the urban growth and urbanisation in Tarai after 1951 (Sharma 1989:14). In the Hills-three most important factors contributed in the growth of towns after 1950s are: the expansion of the bureaucracy; the overall increase in the volume of trade predominantly of imported goods for the rural people; and the construction of new roads that resulted smaller number of market centers along on-road locations (Blaikie 1980:130).

Data on urbansation in Nepal is available only since 1952/54 census. Frequent changes in definitions, changes in urban boundaries and incorporation of new ones are the complications in study of urban areas (Basyal 2000: 32). The 1952/54 census did not provide any formal definition of urban area, but it furnished some of socio-economic characteristics for few

urban areas called *Sahar*. The formal definition of urban area came out for the first time in 1961 census as "an area with a population cluster of not less than 5000 with an urban environment such as high school, college, judicial and administrative offices, bazar, communication facilities, mills factories etc," called *Sahar*. The nomenclature of the municipality (designated urban area) was changed with the advent of Panchayat System in 1961. 'The Nagar Panchayat Act of 1962' defined Town *Panchayat* (designated urban area) as being 'as area having not less than 10,000 population'. Since 1962, all municipal body (municipality) have been considered formal urban areas in Nepal, as a unit of self government not as a settlement unit.

The criteria of an urban area was again changed in 1976, in which the minimum population was fixed at 9000. During seventies, the government made two decisions—to declare all the zonal headquarters and all development centers as town *Panchayats*. The regional development strategy was adopted, and the series of north-south growth corridors and growth centers were identified to concentrate development efforts in order to achieve full economic development and encourage agglomeration of economy (Shrestha 1975:1; Sharma 1989:2), which resulted important contribution to urban growth. The 'Municipality Act of 1992' has provided more elaborate criteria ever than before to designate urban area; 'as any area in the Kingdom of Nepal with minimum population of 20,000 and having electricity, road, drinking water and telecommunication facilities shall be declared as municipality by HMG with specifying the boundary areas of the municipality.' The same act, further stratified urban areas into three categories on the basis of "inhabitants, source of revenue collected and other environments". These categories are: *Mahanagarपालिका* (Metropolitan area), *Upa-mahanagarपालिका* (Sub-metropolitan area) and *Nagarपालिका* (Municipality or Municipal area)(CBS 1995: 243).

Trend of Urbanisation

Growth of Urban Population: The pattern of population growth in different censuses increased from 8.3 million in 1952/54 census to 18.5 million in 1991. From a low base of urban population in 1952/54, the population living in urban areas increased more than nine times for the same period, whereas the rural population increased only by 2.02 times and the total population by 2.25 times. The total population growth rate is estimated to be 2.37 percent for 1990s and whereas it was 2.66 for 1980s. This total population growth has been accompanied by an ever faster urban growth also.

In Nepal, the number of urban areas in the country has been small compared to the neighbouring countries. At the time of first scientific population census in 1952/54, only 10 urban areas were recognized with an aggregate population of 238275. The urban population was proportionally small (2.89 percent of the total population) and concentrated in Kathmandu valley (82.6 percent of the urban population) (Table 1).

Table 1: Trends of Urbanisation in Nepal 1952/54-1991

Census years	Total pop.	Urban pop.	% urban	No. of urban areas	Urban growth rates	Decadal change in percentage
1952/54	8256625	238275	2.89	10	-	-
1961	9412996	336222	3.57	16	4.42	39.0
1971	11555983	461938	4.00	16	3.23	39.5
1981	15022839	956721	6.37	23	7.55	107.1
1991a	18491097	1695719	9.16	33	5.89	77.2
1991b	-do-	2287487	12.37	58	9.11	139.1

Source: Sharma (1989), CBS, Statistical Pocket Book, 1998, Table 1.1 and 1.2.

Note: 1991a = data is based on 33 municipalities, 1991b = data with including of all 25 newly designated urban areas after 1991 census.

According to 1961 census, the number of urban areas had reached to sixteen and the urban population had increased to 336,222 with an annual growth rate of 4.42 percent. This represented an urbanisation level of 3.57 percent. During the period of 1971-81, the urban population was doubled. The urban population grew from 461938 in 1971 to 956721 in 1981 growing at the rate of 7.55 percent per annum. In 1981, urban dwellers represented about 6.4 percent of the total population compared to 4.0 percent in 1971. The 1991 census listed 33 urban areas with an urban population of 1695719. After the designation of 25 new areas between 1992-97, according to 1991 census, the urban population reached upto 2287487, the level of urbanisation has risen to 12.4 percent, representing more than doubling of the urban population during 1981-91 period, accounting the growth rate of 9.1 percent per annum. Altogether there are 58 recognized urban areas (i.e. Municipalities) in the country. The distribution of urban population by urban areas is given in Table 2. In the year 2000, the urbanisation level of the country has been estimated about 15 percent with the urban population more than 3 millions (*Gorkhapatra*, Ashad 27,2057).

Process and Characteristics of Urbanisation in Nepal 193

Urban population growth rates remained always higher than that of national and rural population growth rates. Particularly the last two intercensal decades (1971-81 and 1981-91), urban growth rates has been recorded very high 7.55 percent and 9.1 percent per annum-respectively (see table 2). In general, these figures shows, the annual growth of urbanisation has always been consistently higher than the rate of ruralization. It can be understand studying the percentile change of urban population in the same table.

Table 2: Total Urban Population by Urban Areas in Nepal, 1952/54-91.

Hills/Mountains	1952/54	1961	1971	1981	1991
		16237	34344	83376	429953
Amargadhi					16454
Baglung					15219
Banepa		5688			12537
Bidur					18694
Byas					20124
Dasharath Chand					18054
Dhankuta				13836	17073
Dhulikhel					9812
Dipayal					12360
Ilam			7299	9773	13197
Lekhanath					30107
Narayan					15738
Panauti					20467
Pokhara		5413	20611	46642	95286
Prithivi Narayan					20633
Putali Bazar					25870
Tansen		5136	6434	13125	13599
Waling					16712
Bhimeswor					19261
Khandbari					18756
Kathmandu Valley	196777	218092	249563	363507	661836
Lalitpur	42183	47713	59049	79875	115865
Kathmandu	106579	121019	150402	235160	421258
Madhyapur Thimi	8657	9719			31970
Kirtipur	7038	5764			31338
Bhaktapur	32320	33877	40112	48472	61405

Inner Tarai			16194	96861	289092
Bharatpur				27602	54670
Birendranagar				13859	22973
Hetaunda			16194	34792	53836
Kamalamai					24368
Ramgram					18911
Ratnanagar					25118
Tribhuban Nagar				20608	29050
Trijuga					37512
Tulsipur					22654
Tarai	41498	101893	161837	412977	906607
Bhadrapur			7499	9761	15210
Biratnagar	8060	35355	45100	93544	129388
Birgunj	10037	10769	12999	43642	69005
Butwal			12815	22583	44272
Damak					41321
Dhangadhi				27274	44753
Dharan		13998	20503	42146	66457
Gaur					20434
Gulariya					30631
Itahari					26824
Inaruwa					18547
Jaleswor					18088
Janakpur	7037	8928	14294	34840	54710
Kalaiya					18498
Kapilvastu					17126
Lahan				13775	19018
Mahendra Nagar				43834	62050
Malangwa	5551	6721			14142
Mechinagar					37108
Nepalgunj	10813	15817	23523	34015	47819
Rajbiraj		5232	7832	16444	24227
Siddartha Nagar			17272	31119	39473
Siraha					21866
Tikapur					25639
Matihani		5073			
All Urban	238275	336222	461938	956721	2287487
Nepal	8256625	9412996	11555983	15022839	18491097

Sources: CBS, 1987 and 1995 CBS (1998), Table 1.1 and 1.2

Process and Characteristics of Urbanisation in Nepal 195

Variation in urban growth in Nepal during 1952/54-91, gives an interesting picture. From 39 percent during 1952/54-61, it went up to 139.1 percentage during 1981-91, but it was not uniform during the intercensal periods. The overall picture on urban growth rates and urban population between the intercensal decades is largely a reflection of the reclassification of urban areas.

Regional Levels of Urbanisation: The urban population in 1952/54 national census year was only 2.9 percent of the total population, which slightly increased to 3.6 percent in 1961. In 1971, it had reached to 4.0 percent, whereas it galloped to 6.4 percent in 1981. The 1991 census accounts that the urban population of the country was about 9.2 percent of the total population, now the figure has risen upto 12.4 percent of the total population of the country, after the designation of 25 areas as urban between the period of 1992-97 according to 1991 census data.

Data on levels of urbanisation by geographic-regions is presented in Table 3. Kathmandu Valley Region has been the most urbanised (accounting above 40 percent in all census,) since 1952/54 census with increasing ratio. According to 1991 census, about 60 percent of the region's population are of urban residents in Kathmandu valley region, followed by inner Tarai region (about 17 percent). Both of them have urbanisation level above national average (12.4 percent), on the other hand Tarai region and Hills/Mountain region has below the national level accounting 11 percent and 5.5 percent respectively. Inner Tarai Region (ITR) has recorded the significant changes in the level of urbanisation, where as it had no urban population until 1961.

**Table 3: Regional Levels of Urbanisation in Nepal:
1952/54-91**

Region	Census years					
	1952/54	1961	1971	1981	1991a	1991b
Hills/Mountain	0	0.29	0.57	1.2	2.47	5.53
Kathmandu valley	47.89	47.41	40.32	47.43	54.14	59.87
Inner Tarai	0	0	1.84	7.57	9.47	17.06
Tarai	1.72	3.51	4.05	6.85	9.37	11.12
Nepal	2.89	3.57	4.0	6.37	9.16	12.37

Source: Calculated according to Table 2, CBS (1998), and Sharma (1989).

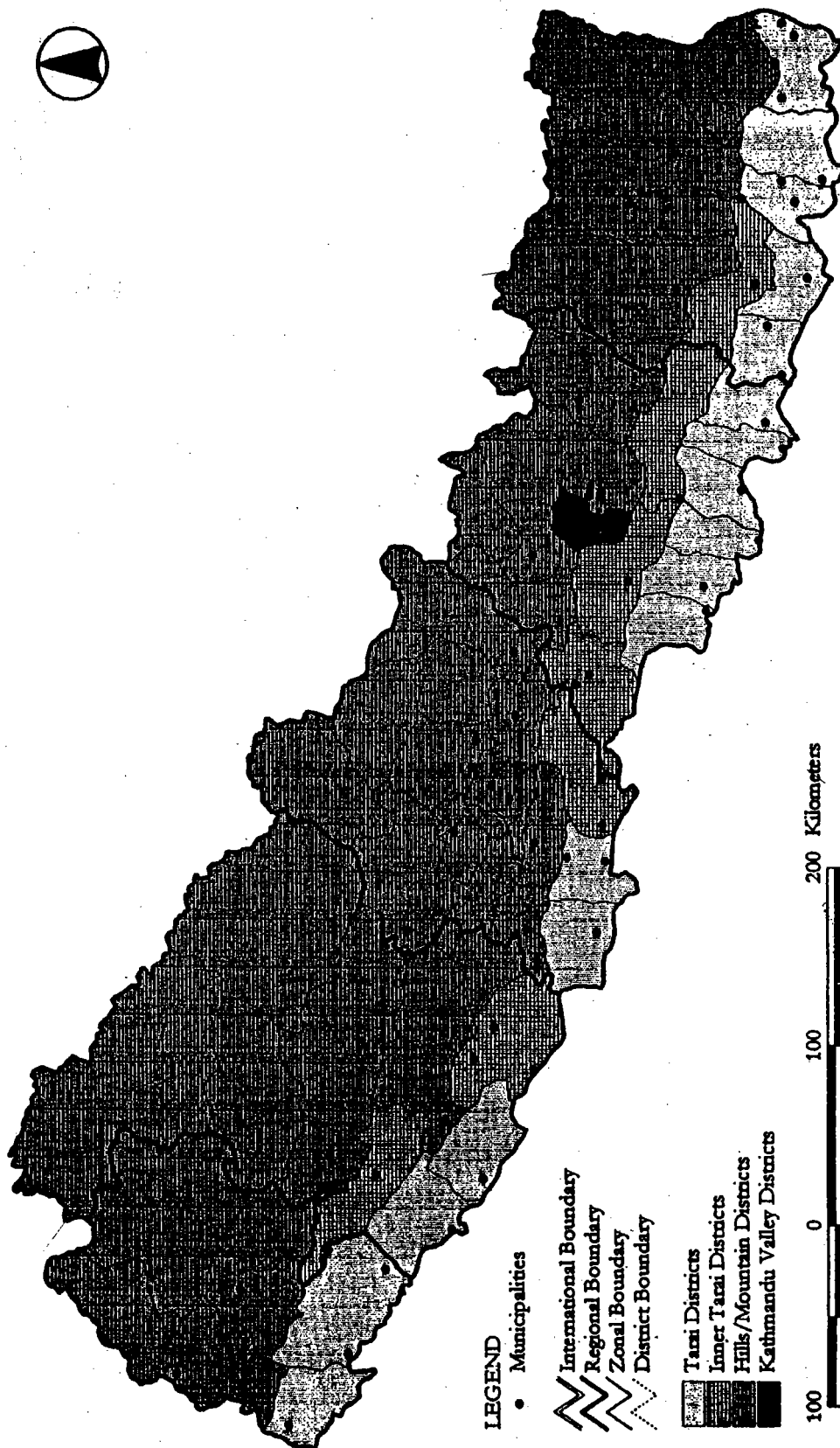
If the analysis is made at sub-regional (district) levels, the level of urbanisation is recorded ranging between 67 percent (in Kathmandu) to 2.8 percent (Sarlahi district) in 1991. Out of 75 districts in the country, 43 districts have urban population and rest of 32 districts do not have any urban population/ areas in 1991, compared to 22 in 1981 and only 15 in 1971 having urban population.

Slowing down of urbanisation level has been recorded in Banke, Kanchanpur (in Tarai region), Bhaktapur (in Kathmandu valley) and Palpa (in Hills) over the decades. Different reasons are involved in such slowing down of urbanisation in these urban areas. Most of the rural originated migrants destination would be the rural Tarai in the case of Banke and Kanchanpur. Declining importance of Tansen due to development of feeder as well as rural roads would be the major cause for Palpa and close proximity to Kathmandu Metropolitan city (KMC) would be the cause for Bhaktapur.

In terms of number of urban areas, out of 58 Nagarpalikas (recognized urban areas), 24 are concentrated in Tarai followed by 10 in Hills/Mountain, 9 in inner Tarai and the rest of 5 are in the Kathmandu Valley now (Map 1 and Map 2). The period after 1981 census, the Hills/Mountain Region (HMR) marked a dramatic change in the number of urban areas. If Mountain Region (MR) is taken in consideration as a separate region, there was no any urban area/population until 1991. In 1997, Khandbari and Bhimeswor were recognised as urban—accounting least urbanised region. There were no significant changes in the number of urban areas in Kathmandu valley.



Map 1: Distribution of Urban Areas by Geographic Regions in 1997



Urban Systems

Urban system has been considered as one of the major approaches in the study of urbanisation. It is studied mainly within the conceptual framework of Central Places Theory supposing that hamlets, villages, towns and cities are mutually dependent on each other and they co-exists as a unified system of settlement in any region, state or nation. In other words urban system is taken as a set of interdependent cities in a region or nation is a reflection of the nature of the distribution of settlements and their characteristics (Sharma 1989:105; Ramachandran 1999:190). The urban system of the country is analyzed here on the basis of population size — as a crude measure of centrality, rather than other characteristics like: urban spacing, functional range of the city etc.

Size Class of Urban Areas in Nepal: The change in number and size class of towns is one of the indicator of process of urbanisation. In 1952/54 census, only 10 urban areas in the country were recognized of which one was of size class I (cities with population over 100,000), 2 of class III (medium towns population 20,000-49,999) and 7 of class IV (small towns less than 20,000 population). The urban areas have been growing both in number and size since 1952/54 (Table 4). In 1991 census, 33 areas were identified as urban of which 3 were of class I, 8 of class II and III each and 14 in class IV compared to 1 in size class I, 2 in size class II, 13 in size class III and 7 in size class IV and the total number of 23 in 1981 census. In the history of past five intercensal periods, the most remarkable changes in size class were recorded during the period of 1981-91. During this period two cities of size class II (Biratnagar and Lalitpur) were shifted in to size class I category and six urban areas of size class III in to size class II category. After the 1991 census, 25 new localities were designated as urban, of these 17 areas were entered in to size class III category directly and eight into size class IV. In this way, the number of size class III urban areas reached to 25 and 22 in size class IV according to 1991 census (Map 3).

Map 3: Size Class Distribution of Urban Areas in Nepal in 1997

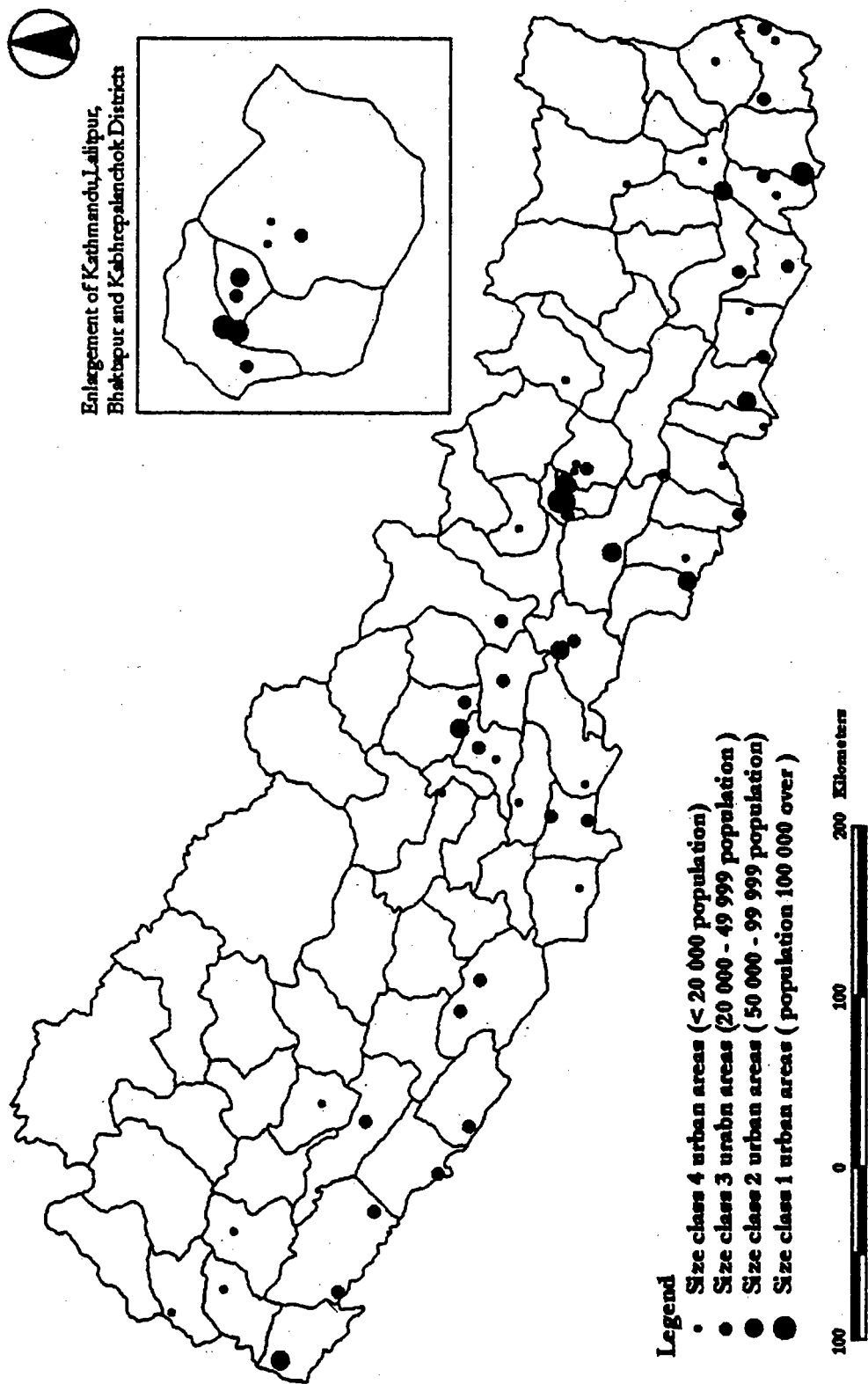


Table 4: Percentage of Urban Population in Different Size Classes of Urban Areas in Nepal, 1952/54-91.

Census years	Percentage distribution of population by size classes				
	I	II	III	IV	Nepal
1952/54	44.7 (1)		31.1 (2)	24.0 (7)	100.0 (10)
1961	36.0 (1)		34.8 (3)	29.2 (12)	100.0 (16)
1971	32.6 (1)	12.8 (1)	32.4 (5)	22.2 (9)	100.0 (16)
1981	24.6 (1)	18.1 (2)	47.8 (13)	9.5 (7)	100.0 (23)
1991a	39.3(3)	30.5 (8)	17.3 (8)	12.8 (14)	100.0 (33)
1991b	29.1 (3)	22.6 (8)	32.6 (25)	15.6 (22)	100.0 (58)

Source: Calculated according to Table 2.

Note: Number in parenthesis refers to the numbers of urban areas

The percentage share of urban population among different size classes reveals that the proportion is neither uniformly distributed among different size classes nor increasing uniformly over the decades. The ratio have been recorded ups and downs. Generally speaking the proportion of urban population in medium and large towns have increased over the decades but the proportion in cities (100,000 and over) and small towns has been recorded in decreasing order. The phenomena of large towns (size class II) was remarkable by its absence upto 1961 census. According to 1991 census, about 16 percent of urban population were in small towns, 32.6 percent of the population of the urban population on 25 medium towns, 22.6 percent in 8 large towns and about 29 percent in Cities compared to 9.5 percent, 47.8 percent, 18.1 percent and 24.6 percent in 1981 census respectively. These figures show the over all picture of population scenario among different size classes, the dominance of large and medium towns have always remarkable.

At regional level, small towns are generally characterizes in Hills, while medium towns dominate Tarai and Inner Tarai region. Of three cities in the country one (Biratnagar) in Tarai and rest of two (Kathmandu and Lalitpur) are situated in Kathmandu valley. However Pokhara (in Hills) and Birgunj (in Tarai) have been declared as sub-metropolitan cities (having more than 100,000 population) recently; and Dharan is another city emerging as a city (size class I) situated in Inner Tarai Region (Basyal 2000).

Since 1952/54 census, the size of population living in each of the size classes has been increasing decade by decade. However the rates of growth per

annum varies one to another intercensal decades as well as size classes. A phenomenal decline in the growth rates of small towns is recorded up to 1981 census, but same towns recorded high growth rates for the period 1981-91. In the case of medium towns, it has grown at the rate of 5.01 per cent per annum during 1981-91 compared to 11.31 percent during 1971-81. Table 5 shows large towns recorded very high growth rates (about 11 percent) during seventies and eighties. About the same rates has been recorded in cities (of size class I) for the period of 1981-91 compared to 4.5 percent per annum during 1971-81. Generally cities and large towns have registered increased growth rates per annum over the decades, where as medium and small towns have not uniform growth rates. The major reason behind it would be the entrance of newly designated areas entering into these categories.

Table 5: Growth Rates of Urban Population by Size Classes 1952/54-1991

Size classes/decades	1952/54-61	1961-71	1971-81	1981-91a	1981-91b
I. 100,000 and over	1.83	2.2	4.57	10.97	10.97
II. 50,000-99,999	-	-	11.38	11.55	11.55
III. 20,000-49,999	5.8	2.51	11.31	-4.33	5.01
IV. Less than 20,000	2.0	0.44	1.24	9.17	14.7
Urban	4.4	3.23	7.55	5.89	9.1

Source : Calculated according to Table 2.

Rank Size Distribution of Urban Areas: The rank size indicates relative importance or the hierarchy of urban areas. For the present study only population parameter is included rather than the number of functions available in the city, transportation facilities and the spacing in relation to other settlements.

Changing patterns of the rank- hierarchy of urban areas for Nepal is shown in Table 6, in which urban areas have been ranked in decreasing order according to population size for the 1952/54 to 1991 census. Kathmandu, Lalitpur and Biratnagar have remained stable since 1961 to 1991. The movement is evident in the middle and lower rung of the rank hierarchy since 1961, only Pokhara and Biratnagar have consistently risen their rank, whereas Kathmandu has been its maintained it's supremacy in the rank hierarchy.

Table 6: Rank order of urban areas in Nepal 1952/54-1991

Rank no	1952/54	1961	1971	1981	1991
1	Kathmandu	Kathmandu	Kathmandu	Kathmandu	Kathmandu
2	Lalitpur	Lalitpur	Lalitpur	Birat Nagar	Birat Nagar
3	Bhaktapur	Birat Nagar	Birat Nagar	Lalitpur	Lalitpur
4	Nepalgunj	Bhaktapur	Bhaktapur	Bhaktapur	Pokhara
5	Birgunj	Nepalgunj	Nepalgunj	Pokhara	Birgunj
6	Madhyapur Thimi	Dharan	Pokhara	Mahendra Nagar	Dharan
7	Birat Nagar	Birgunj	Dharan	Birgunj	Mahendra Nagar
8	Kirtipur	Madhyapur Thimi	Siddhartha Nagar	Dhangadhi	Bhaktapur
9	Janakpur	Janakpur	Hetauda	Jaleswor	Janakpur
10	Malangawa	Malangawa	Janakpur	Hetauda	Bharatpur
11		Kirtipur	Birgunj	Nepalgunj	Hetauda
12		Banepa	Butwal	Siddhartha Nagar	Nepalgunj
13		Pokhara	Rajbiraj	Bharatpur	Dhangadhi
14		Rajbiraj	Bhadrapur	Damak	Butwal
15		Tansen	Ilam	Butwal	Damak
16		Matihani	Tansen	Tribhuvan Nagar	Siddhartha Nagar
17				Rajbiraj	Trijuga
18				Birendra Nagar	Mechinagar
19				Dhankuta	Madhyapur Thimi
20				Lahan	Kirtipur
21				Tansen	Gulariya
22				Ilam	Lekhnath
23				Bhadrapur	Tribhuvan Nagar
24					Itahari
25					Putali Bazar
26					Tikapur
27					Ratnanagar
28					Kamalamai
29					Rajbiraj
30					Birendra Nagar
31					Tulsipur
32					Siraha
33					Prithvi
34					Narayan
35					Panauti
36					Gaur
					Byas

37				Bhimeswor
38				Lahan
39				Ramgram
40				Khandbari
41				Bidur
42				Inaruwa
43				Kalaiya
44				Jaleswor
45				Dasharath
				Chand
46				Kapilvastu
47				Dhankuta
48				Walling
49				Amargadhi
50				Narayan
51				Baglung
52				Bhadrapur
53				Malangawa
54				Tansen
55				Ilam
56				Banepa
57				Dipayal
58				Dhaulikhel

Birgunj and Dharan are the other very fast upgrading cities in the rank hierarchy. Bhaktapur, the third largest city in the census 1952/54, has been losing its rank drastically decade by decade and went down to the 8th position in 1991 census, whereas it was in 4th position from 1961 to 1981. Most of the Tarai towns (i.e., Birgunj, Dharan, Janakpur, Hetauda, Nepalgunj, Bharatpur, Butwal, Dhangadhi etc.) are upgrading their ranks gradually, whereas, most of the Hill towns (i.e., Dhankuta, Tansen, Ilam, Dhulikhel etc.) losing their ranks on the other. Areas designated as urban between 1992-97, has been making the major distortion on the rank order.

The nature of Tarai towns is more distinct than hill towns. Tarai towns usually characterize homogenous landscape, uniform distribution of population, rich economic base, fertile agricultural land, radial pattern of transport network as well as the interaction with the Indian border market centres. These would be the major contributing factors for the faster growing of these towns attracting more people from within or outside the region or even from across the border. On the other hand, hill towns have been facing the problems of accessibility. If road facilities are available they are linear in

pattern, poor resource base in the hinterland area and limited employment opportunities outside the agriculture. Due to these limitations most of urban areas in hills are constantly losing their rank except centrally located urban areas in the total urban system.

The rank size rule, as said before, is a statistical regularity observed by Zipf many years ago. According to him, if the cities of a country or region are arranged in order of size in general, the second largest city will have about half the population of the largest city, the third city about one third population of the largest city, k and so on as mathematically $P_r = P_1/P_k$. If the population of cities is plotted in log-log graph paper on one axis and their rank on the other axis, the distribution will tend to be a straight line at an angle of -45° or a slope of -1.00 , further if the cities confirm the rule, then the ratio of actual to optimum population (computed as $P_k/(P_1/k) \times 100$, where k is the rank, P is the population and P_1 is the population of the first ranked city) will be approximately 100, that one would expect the distribution (of urban areas) is normal.

The series of present actual to optimum rank-size relations among urban areas (see Table 7) in Nepalese urban system does not display the character as revealed by Zipf theory. The large and medium towns have higher differences than that of cities and small towns (Figure 1). The index for almost all urban areas were recorded below 100 upto 1971 census year. Unprecedented increase was recorded those urban areas ranked that there is wide differences between actual to optimum population and also suggests the migration from rural to urban areas and more specifically towards larger urban areas is very high in the country.

Figure 1: Rank-size distribution of urban areas in Nepal, 1961-97

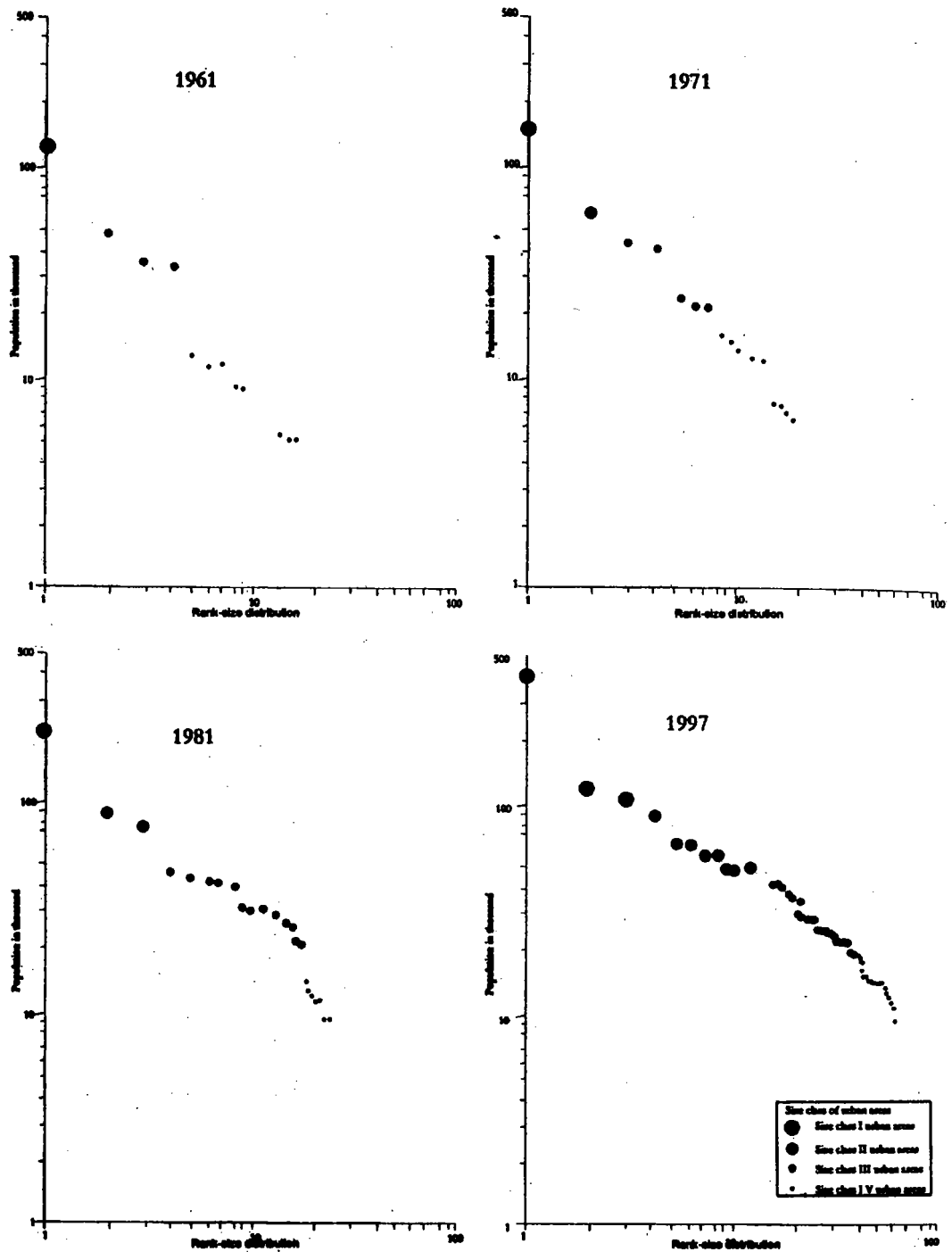


Table 7: Ratio of Actual to Expected Population of Urban Areas of Nepal 1952/54-1991.

Rank no.	1952/54	1961	1971	1981	1991
1	100.00	100.00	100.00	100.00	100.00
2	79.16	78.85	78.52	79.56	61.43
3	90.97	87.64	89.96	101.90	82.51
4	40.58	111.97	106.68	82.45	90.48
5	47.09	65.35	78.20	99.17	81.90
6	48.74	69.40	82.22	111.84	94.66
7	52.94	62.29	95.42	129.91	103.11
8	52.83	64.25	91.87	143.38	116.61
9	59.42	66.40	96.90	133.34	116.89
10	52.08	55.54	95.04	147.95	129.78
11		52.39	95.07	159.11	140.58
12		56.40	102.25	158.80	136.22
13		58.15	67.70	152.59	138.11
14		60.53	69.80	162.37	147.13
15		63.66	72.79	144.05	147.13
16		67.07	68.45	140.21	149.92
17				118.88	151.38
18				106.08	158.56
19				111.79	144.19
20				117.15	148.78
21				117.21	152.70
22				91.43	157.23
23				95.47	158.61
24					152.82
25					153.53
26					158.24
27					160.99
28					161.97
29					166.78
30					163.60
31					166.71
32					166.10
33					161.63
34					165.19
35					169.77
36					171.98
37					169.17
38					171.55
39					175.08

40				178.10
41				181.94
42				184.92
43				188.82
44				188.93
45				192.86
46				187.01
47				190.48
48				190.42
49				191.39
50				186.80
51				184.25
52				187.75
53				177.93
54				174.32
55				172.30
56				166.66
57				167.24
58				135.09

Primacy Patterns: Urban primacy is a measure of the dominance of the biggest city in the total urban system (situation) of a country or a region. The issue is concerned with the concept of primate city as described ... 'a country's leading city is always disproportionately large and exceptionally expressive of national capacity and feeling. The city is pre-eminent not merely in (population) size but also a 'national influence' (NIUA 1988: 168). In a number of developing countries (like Nepal), the major city- usually the national capital—has far out paced other cities in its growth rate, (Goldstein 1985:36) due to, the leading city tend to attract the best of human talent and skills as providing the greatest opportunity for employment. It results the gap between the primate city and the second largest city tends to widen through time (Ramachandran 1999:192).

The comparison between census years based on two-cities and four-cities index of primacy shows their values for the country have relatively stable upto 1981. In eighties the level of primacy significantly increased on both two-city and four-city. Two-city index increased to 3.25 in 1991 compared to 2.51 in 1981. On the other hand four-city index reached 1.34 from 1.05 for the same period (Table 8). Primacy patterns at regional level, Kathmandu valley region recorded highest index followed by Hill region in 1997 according to 1991 census data; recorded 3.63 and 3.16 respectively. The moderate level of index is recorded in Tarai and inner Tarai (Table 9). The

primacy index is increasing decade by decade in Hill and Kathmandu valley region, where as in Tarai and Inner Tarai region the index has been sharply declining.

Table 8: Primacy Pattern in Nepal, 1952/54-91.

Index/Census years	1952/54	1961	1971	1981	1991
Two city index	2.53	2.54	2.54	2.51	3.25
Four city index	1.25	1.03	1.04	1.05	1.34

Source: Calculated according to Table 2.

The increasing ratio of primacy index shows the higher ratio of rural to urban migration towards the largest city than to the smaller towns as well as the higher primacy ratio demonstrate proximate city is becoming more important in terms of population size and probably in the performance of key social, economic and political functions within a country. At regional level, the higher ratio of primacy index in Hills and Kathmandu valley region indicates that in these regions rural-urban migration is more oriented towards higher order cities.

Table 9: Urban Primacy by Regions in Nepal 1961-91.

Region/index	Two city index					Percentages share of population largest urban area in the total urban population				
	1961	1971	1981	1991a	1991b	1961	1971	1981	1991a	1991b
Hills/Mountain	1.05	2.82	3.37	5.10	3.16	35.03	65.75	55.94	49.48	22.16
Kathmandu	2.53	2.54	2.94	3.63	3.63	55.48	60.26	64.69	70.38	63.64
Innter Tarai	-	-	1.26	1.01	1.01	-	100.00	35.91	34.06	18.91
Tarai	2.23	1.91	2.13	1.87	1.87	34.69	27.86	22.68	17.39	14.27
Nepal	2.54	2.54	2.51	3.25	3.25	36.0	32.6	24.6	24.87	18.41

Source: Calculated according to Table 2.

Besides two-city and four-city index, there is another method to measure the primacy index based on percentage share of the largest urban area to the total population. In 1961, the index was 36 percent whereas it went down to 18.4 percent in 1991. The Kathmandu Metropolitan City (KMC) has remained its super position since then. This method of index took the whole urban system into account in a nation or a region. There is one thing to note

that the rise and fall of the index is always distorted by the rise and fall of the number of urban areas in the country or region.

The result among these three measures shows different situation of primacy. Although the result based on two-city index and four-city index has represented the similar situation, but the index based on the percentage share of total urban population in the largest city has demonstrated relatively stronger basis of urbanisation.

Demographic and Socio-economic Characteristics of Urban Population

The characteristics of population living in urban areas differ from those of residents in other localities (i.e, rural areas). With the different rates in the growth and re-distribution of population between rural and urban areas the changes in its socio-economic and demographic characteristics are evident over the period of time. Urban and rural areas vary from one to another. In this respect, it is essential to study such differences. Some of the demographic and socio-economic characteristics, such as age differentials, dependency ratio, sex ratio, literacy ratio and labour force are briefly discussed below.

Age Differentials: Age structure is one of the most important demographic aspects. In the past it was taken as a means of analysing the level of fertility, mortality and the patterns of migration. The urban-rural composition of age-structure of the population tends to make urban population distinctly different from that of their rural population. Examination of age-composition between urban and rural population reveals relatively higher proportion of population in early age groups (below 15 years) in rural areas than in urban areas (Table 9). On the other hand, the same table shows the higher proportion of population in working age groups in urban areas. It is due to the combined effect of differences in fertility and mortality levels between urban and rural areas, as well as the result of selective rural to urban migration of working age groups of population.

Table: 10 Percentage of Population in Different Age Groups of Urban and Rural Population in Nepal, 1961-91.

Years	1961		1971		1981		1991a		1991b	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
0-4	13.0	14.3	12.7	14.2	14.2	15.5	12.0	14.9	12.5	14.9
5-9	12.0	14.5	13.4	15.2	13.3	14.7	13.0	15.4	13.4	15.4
10-14	10.6	11.3	11.2	11.2	11.6	11.4	12.3	12.6	12.6	12.6
15-19	9.7	8.6	10.5	9.0	10.2	8.8	11.2	9.5	13.0	9.5
20-24	10.5	8.3	10.3	8.3	10.3	8.8	11.0	8.3	10.5	8.3
24-29	9.1	8.4	8.8	8.0	8.4	7.7	9.1	7.3	8.7	7.3
30-34	7.7	7.5	7.2	7.0	6.8	6.5	7.1	6.1	6.9	6.1
35-39	6.2	6.2	6.3	6.5	6.0	5.9	6.0	5.5	5.9	5.5
40-44	5.4	5.0	5.2	5.3	4.8	5.0	4.5	4.6	4.5	4.6
45-49	4.2	2.1	3.7	4.0	3.9	4.1	3.8	4.0	3.8	4.0
50-54	3.9	3.8	3.5	3.5	3.2	3.6	2.8	3.3	2.9	3.3
55-59	2.4	2.4	2.1	2.2	2.0	2.3	2.2	2.6	2.3	2.6
60-64	2.4	2.5	2.3	2.6	2.1	2.5	1.9	2.4	2.0	2.4
65+	2.8	2.7	2.9	3.1	3.1	3.3	3.1	3.5	3.2	3.5
Total	100.	100.0	100.	100.0	100.0	100.0	100.0	100.0	100.	100.0
	0		0						0	

Source: Sharma (1989); CBS (1995), CBS Population Census 1991, Urban Tables, Table 5 and Table 2 of VDC wise population from unpublished printouts.

The data shows the total rural population more than 40 percent comprises less than 15 years of age group in each intercensal periods which was 40 percent in 1961, 40.6 percent in 1971, 41.6 percent in 1981, and it reached 43.0 percent in 1991 census. On the other side the percent distribution in urban areas for the same age group is 35.6, 37.3, 39.1 and 38.5 percent respectively. These figures show the increasing ratio of population in this age group for both urban and rural areas interestingly, where as the proportion is less in urban areas than in rural areas.

Dependency Ratio: The difference in urban and rural age structure can also be visualized in dependency ratio. It is the ratio of population below 15 years of age and above 60 years divided by the population of age group 15-59 years. The dependency ratio—dependents per 100 population of active ages (15-59 years), for urban and rural population in the country (Table 11), shows

the total labour force bears a greater burden in rural areas than in urban areas, although there are no significant variations between these two sectors. This pattern is particularly marked with respect to younger and total dependency than older age dependency.

Table 11: Dependency Ratio in Nepal 1961-91.

Year	1961		1971		1981		1991b	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Young	60.0	73.6	64.7	75.5	70.1	78.7	68.2	84.0
Old	8.8	9.6	8.9	10.5	9.2	10.9	9.2	11.5
Total	68.8	83.2	73.6	86.0	19.3	89.6	77.4	95.5

Source: Calculated according to Table 10.

The young dependency ratio in urban areas has recorded increasing trend upto 1981 census. After 1981 census, this ratio has slightly declined to 77 in 1991 census, from 79 in 1981. The case of urban old dependency has not changed significantly or it took very slow pace. On the other hand the dependency ratio in rural areas in all age categories is still rising. The over all situation of dependency ratio of the country in rural urban basis suggests that an influx of rural people to the urban areas particularly of working age groups.

Most of the hill urban areas are dominated by higher dependency ratio mostly above 90, whereas the Tarai urban areas are dominated by lower dependency below 90. This means hilly urban areas are facing the problem of higher dependency compared to Tarai urban areas at regional level according to 1991 census. The difference in dependency among urban areas is very high in the country ranging between 109 (in Panauti) to 57 (in Lalitpur) dependents per hundred working age population. All urban areas which have available comparable data, shows the declining ratio of dependency through the intercensal decades (for details see Basyal 2000:77).

Sex Ratios: The sex ratio is the ratio of males per hundred females, can be used to compare the sex compositions of the population in rural-urban context, which can be taken as a distinct characteristics of urban population of the country. According to the census data, the two residence categories i.e., urban and rural areas do not display the similar sex ratio. Urban sex ratio is

always higher than the rural sex ratio. Urban sex ratio is always above 100, whereas the same ratio is below this level in rural areas.

Comparing with previous censuses, the urban sex ratio has been recorded declining ratio, from 112.9 (in 1961) to 106.0 (in 1991), whereas the sex ratio of rural population is closer to 100, since 1961. The observation of the sex ratio of the country on a rural/urban basis that urban population is male dominated in each intercensal decade (Table 12).

Table 12: Rural/Urban Sex Ratio in Nepal, 1961-91.

Sector/census years:	1961	1971	1981	1991a	1991b
Urban	112.9	116.6	115.2	108.4	106.0
Rural	96.7	100.8	104.4	98.5	98.6
Nepal		108.1	105.0	99.5	99.5

Source: Same as Table 10.

Age-specific sex ratio of urban population in all age groups of 0-64 years is higher than in rural areas. Only in older age groups (over 65 years) sex ratio is lower in urban areas than in rural areas. More significant differences between urban and rural age-specific sex ratio is found in between 15-44 age groups in each decade. The rural population is losing their more population mostly of working age groups.

According to 1991 census data, relatively higher sex ratio is found in Terai urban areas, lower sex ratio is accounted mostly of hilly urban areas. Mainly those urban areas that designated after 1991 census has displayed higher sex ratio. Among urban areas the sex ratio ranges between 115.8 (in Taulihawa) to 87.9 (in Putali Bazar) males per 100 females in 1991.

Literacy Ratio: Describing the literacy status of population by urban and rural residence with sex-differential, sharp differences exist between urban and rural areas as well as male and female in each census years since 1952/54. According to 1991 census, literacy ratio of the country was about 39 percent (Table 13) comparing only 8.9 percent in 1961, 14.3 percent in 1971 and 23.5 percent in 1981. The rural urban variations in literacy is still very high in Nepal. There are 62.5 percent of total urban population are literate, whereas this ratio for rural area is only 36.0 percent in 1991; although it has recorded increasing ratio decade by decade. The decade of 1981-91, has recorded the

most significant changes in urban literacy whereas it was only 3 percentage points during 1971-81 periods.

Table 13: Rural-urban Literacy Ratio in Nepal 1961-91.

Census years	Male			Female			Total		
	Nepal	Urban	Rural	Nepal	Urban	Rural	Nepal	Urban	Rural
1961	16.4	57.5	14.6	1.8	19.6	1.1	8.9	40.0	7.7
1971	24.7	62.4	22.9	3.7	28.0	2.7	14.3	47.0	12.9
1981	34.9	62.0	32.9	11.5	37.2	9.8	23.5	50.6	21.6
1991a	54.1	78.0	51.9	24.7	54.8	22.0	39.3	66.9	36.8
1991b	54.1	74.6	51.0	25.7	49.4	21.3	39.3	62.5	36.0

Source: Sharma (1989), CBS Population Census, 1991, Urban Tables, Table 6 of VDC wise population from unpublished printouts.

The higher differences between male and female literacy rates for both areas i.e. urban and rural have been always remarkable. The census 1991 records that in urban areas about 75 percent of male literacy is recorded whereas female literacy is recorded only about 50 percent. In rural area the literacy ratio is farther below than in urban areas for both sexes. Some 51 percent among males and only 21.3 percent among females were literate in 1991. The changes in literacy ratio are significantly marked in urban female population during last five census years, which was only 20 percent in 1961, reached about 50 percent in 1991. The other interesting feature is that only 1.1 percent of rural female literate in 1961 reached upto 21.3 percent in 1991, which is not so significant change.

Labour Force: Higher differences between the proportion of labour force in urban and rural areas are one of the distinguishing features of urbanisation in Nepal. Based on available census data, this study presents analysis on occupational and industrial composition of the economically active labour force.

Economic Activity Rates: In all Nepalese censuses since 1971, percentages of economically active population (EAP) to the population 10 years and above activity rates are higher in rural areas compared to urban areas for both males and females (Table 14). The variation between male and

female is higher in urban areas than in rural areas. For instance, according to 1991 census, the male activity rate was nearly two and half times higher than female rate in urban areas. It is also significant to note that in 1991 rural female participation rate was more than twice (58.3 percent) the urban female participation rates (24.8 percent), whereas the male participation rate is not so varied accounting the 69.5 percent in rural areas and the 59.7 percent in urban areas. In brief, in both areas the activity rates for males are substantially higher than the female rates, but the difference is marked higher in urban areas than in rural areas.

Table 14: Refined Activity Rates of Rural/Urban Population in Nepal 1971-91.

Census years	1971		1981		1991b	
	Urban	Rural	Urban	Rural	Urban	Rural
Male	66.9	83.7	74.8	83.8	59.7	69.5
Female	12.2	36.0	31.5	77.2	24.8	58.3
Both sexes	42.3	60.1	54.9	65.9	42.8	58.6

Source: Sharma (1989), CBS Population Census 1991, Urban Tables, Table 13 and Table 16 of VDC wise population from unpublished printouts.

A considerable variation is found for female activity rate among urban areas. Among urban areas the activity rates for both sexes range from 36.9 percent (in Gulariya) to lowest 23.4 percent (in Lekhnath) in 1991. These figures showing low activity rates are the major problem, suggesting for more job creation in the cities. Among males the rate of participation ranges from 69.6 percent (Kathmandu) to 49.9 percent (in Walling), whereas female participation rate range from 67.7 percent (in Bhimeswor) to 4.4 percent (in Jaleswor) for the same census period. Patterns of activity rates among male and female show the higher variation in almost all urban area. At regional levels most of urban areas are dominating by relatively lower female activity rates. Generally most of Hill urban areas have relatively higher activity rates (above 40 percent) rather than urban areas (accounting below 40 percent).

Table 15: Annual Growth Rates of Economically Active Population in Nepal, 1971-91.

Sex	1971-81			1981-91b		
	Nepal	Urban	Rural	Nepal	Urban	Rural
Male	2.69	8.3	2.4	-0.2	6.4	-1.6
Female	5.47	18.2	5.0	2.3	7.4	1.97
Both Sexes	3.54	10.2	3.2	0.7	6.7	0.2

Source: Same as Table 14.

Growth and changes in the working labour force (economically active population) by urban and rural sectors with comparable figures are shown in Table 15. The average annual growth rate of economically active population for the period 1981-91 shows a rapid growth in urban areas (6.7 percent per annum) relative to the rural labour force growing at the rate of 0.2 percent per annum—below the national average (0.7 percent per annum). The average annual growth rate is more significant for female work force for both urban (7.4 percent) and rural (2 percent) sectors than that of male workforce. The overall growth rates is accounted significantly for urban female labour force for both decades of seventies and eighties.

Distribution of Economically Active Population by Major Industry: The trend of economically active population by industrial groups of urban population since 1971 to 1991 is shown in Table 16. The census data shows that proportion of economically active labour force engaged in agriculture industry is 35.9 percent of the total urban active labour force, whereas this was 66 percent in 1981 census compared to 32.8 percent in 1971. It is difficult to explain the reason for such a fluctuation in the percentage of economically active labour force in different census. In other industrial groups the proportion was increasing and went up to 7.6 percent in manufacturing, 16 percent in commerce and 29.7 percent in personal and community services in 1991, whereas this proportion was 3.7, 10.1 and 17.1 percent respectively in 1981. In the same table with or without the including of newer urban areas (see Table 16 for year 1991a and 1991b respectively), the different results suggest that the nature of newer urban areas (those designated after the 1991 census) display a more rural character.

Table 16: Growth and Percentage Distribution of Economically Active Urban Population by Major Industry Group in Nepal 1971-91.

Industry	1971	1981	1991a	1991b
Agriculture, forestry and fishing	32.8	66.0	24.1	35.9
Mining and quarrying	na	na	0.1	0.1
Manufacturing	10.7	3.7	9.1	7.6
Electricity, gas and water	0.5	0.3	0.9	0.8
Construction	1.3	0.2	2.2	1.9
Commerce	15.3	10.1	19.3	16.0
Transport and communication	3.2	1.1	3.8	3.1
Finance, business and services	1.4	1.5	2.2	1.7
Personal and community services	34.8	17.1	34.5	29.7
Others	-	-	0.6	0.6
Unstated	-	-	3.0	2.6
Total percent	100.0	100.0	100.0	100.0
Total numbers	144600	369636	514610	725852

Source: Same as Table 14., Note : na= not applicable

Among urban areas, there are still large number of urban areas, where the large proportion of economically active labour force is engaged in agricultural sector of economy, ranging from 6.1 percent (in Kathmandu) to 84 percent (in Narayan municipality). Out of 58 municipalities, there are still 37 urban areas, with economically active population engaged in agriculture above the urban average (35.9 percent) and rest of 21 are below this level. Only Kathmandu, Butwal and Nepalgunj accounted below 10 percent of their economically active population in the agriculture in 1991. The distribution of urban economically active population outside the agriculture is very weak. About 8 percent of total urban economically active population is engaged in manufacturing— one of the important sectors of industry. Only Biratnagar, Lalitpur, Kathmandu, Kirtipur and Madhyapur Thimi accounted more than 10 percent in this sector. The case of commercial sector, out of 58, only 19 urban areas met the urban average level (16 percent).

Occupational Structure: Data on occupational structure of urban and rural population affiliated with three major occupational groups, viz. primary,

secondary and tertiary is shown in Table 17. The data shows, that the 1961 and 1971 censuses registered the highest percentage of economically active population in urban areas in tertiary activities (over 40 percent) in contrast to only slight above 2 percent in rural areas. In 1991 census this reached to 48.8 percent in urban areas, whereas only 10.9 percent in rural areas. In general, the huge amount of economically active population of the rural labour force is engaged in agricultural sector (about 86 percent in 1991), whereas the urban areas are dominated by non-agricultural activities. A large number of economically active population in urban areas is engaged in primary activities (35.6 percent). Both for urban and rural areas the trend of economically active population engaged in primary activities is decreasing, and secondary and tertiary activities are increasing decade by decade. The rate of increase varies for both urban and rural areas.

Table 17: Occupational Structure of Urban and Rural Population in Nepal 1961-91.

Sector	Primary		Secondary		Tertiary	
	Urban	Rural	Urban	Rural	Urban	Rural
1961	38.0	96.1	20.1	1.8	41.9	2.1
1971	32.8	96.3	26.6	1.4	40.6	2.3
1981	70.7	94.7	9.5	2.9	19.8	2.4
1991a	23.8	85.4	18.4	3.2	57.8	11.4
1991b	35.6	84.1	15.6	3.0	48.8	10.9

Source: Same as Table 14.

As a whole the urban labour force participation in agricultural and related occupation is slightly slowing down to 35.6 percent in 1991 from 38.0 percent in 1961. The corresponding percentage in rural labour force participation was 86.1 percent from 96.1 percent for the same period respectively. In non-agricultural sector, more significant change is seen in tertiary activities both in urban and rural areas. Clearly, the occupational structure of urban data seen in 1981 does not make sense. Tertiarization of the urban occupational structure is clearly distinguished in Nepalese urban areas. The growth in secondary sector has clearly not kept pace with increasing level of urbanisation in the country.

As for the state of occupational structure by urban localities in 1991, the major proportion of economically active population is engaged in outside the

agriculture (64.4 percent), compared to the rural areas (13.9 percent). The highest proportion of economically active population engaged in non-agricultural sector is observed in Kathmandu accounting 94.1 percent, followed by Butwal (92.2 percent) and Nepalgunj (91.1 percent), whereas the lowest proportion is recorded in Narayan municipality (16 percent). Generally Hill/Mountain urban areas have recorded higher proportion of their economically active population engaged in primary occupation whereas inner Tarai and Kathmandu valley urban areas are dominated by secondary and tertiary activities.

Intra-urban Characteristics

Population characteristics show the most of the designated urban areas are pro-rural in character. However, age structure, dependency ratio, and literacy ratio of population show some semblance of urban character. Here intra-urban characteristics of urban population is discussed below.

The percentage distribution of population among three major age groups, out of 58, 36 urban areas has accounted more than 40 percent of their population in younger age groups (below 15 years), and the rest of 22 urban areas have below this line, ranging between 47.6 percent (in Tikapur) and 31.5 percent in Kathmandu. Higher proportion of population in the adult age group (15-59 years) is found in Kathmandu valley towns, whereas hill urban areas are recorded lower ratio of the adult age groups. The proportion of aged population (60 and over) averages only 5.2 percent, below the national level (5.8 percent). Among urban areas it ranges from 14.5 percent in Panauti to 2.4 percent in Butwal. Generally the proportion of younger ages is higher in almost all urban areas except very few areas, which reduced the most productive age group of 15-59 years, whereas proportion of older people is relatively low.

As for the dependency characteristics by urban areas in 1991, the highest ratio was accounted in Panauti (about 109) followed by Tikapur (about 108), and least dependency ratios recorded in Lalitpur about 57 dependents per hundred working age population (15-59 years). Only two urban areas Panauti and Tikapur have the dependency above 100. Seventeen urban areas fall into 90-100 category. The highest number of urban areas listed between the ratio of 80-90 and 70-80 category is of 21 and 15 respectively. By geographic regions, most of the hill towns have relatively higher dependency than Tarai towns.

Relatively higher sex ratio among urban areas is listed in Tarai towns accounting 100 and above except Tikapur and Mahendranagar, whereas almost all hill towns have recorded below this level. Out of 58 urban areas, 41 have the ratio above 100 and the rest of 17 areas have below this level. Generally most of Tarai and all of Kathmandu valley and Inner Tarai urban areas are dominated by higher sex ratio 100 and above, and in other hand more hill urban areas have relatively lower sex ratio. Comparatively recently designated urban areas (after 1991 census) has accounted lower sex ratio than those urban areas emerged before this census.

There are 27 urban areas with more than 60 percent literate in total residence in 1991. Even yet there are 5 urban areas with below the national literacy ratio. Among urban areas literacy ratio ranges from 77 percent in Baglung to only 30.1 percent in Gulariya. The higher gap in male and female literacy ratio is a quite distinguished feature of most of urban areas of the country. A comparison of literacy among urban areas in 1991 for both male and female literacy is much lower in general and female literacy in particular. This gap is wider in newly reclassified urban areas.

A comparison of activity rates, particularly for females, is found wide variation among urban areas. The highest activity rate is recorded in Gulariya (36.9 percent) in 1991. Among males, the rates of participation ranges between 69.6 percent (in Kathmandu) to 49.9 percent (in Walling), where as female participation rate ranges from 67.7 percent (in Bhimeswor) to 4.4 percent (in Jaleswor).

The male activity rate is always higher than total as well as female activity rates, except in Dasharath Chand, Amargadhi Putalibazar, and Bhimeswor, these urban areas accounted higher female participation ratio than that of male. Biratnagar, Rajbiraj, Janakpur, Birgunj, Nepalgunj, Jaleswar, Kalaiya, Malangawa, Siraha, Gulariya and Gaur (all are Tarai towns) have below 10 percent of female participation in economic activities of working age groups. Out of 58, only two (Dasharath Chand and Amargadhi) have a higher female activity rates than males, and rest of all are high male participation rate.

There are still large numbers of urban areas, where the large proportion of active labour force is engaged in agricultural industry, ranging from 6.1 percent (in Kathmandu) to 84 percent (in Narayan) of the economically active population engaged in this sector. Out of 58, there are still 37 urban areas which are above the urban average (35.9 percent) engaged in agriculture. Only Kathmandu, Butwal and Nepalgunj accounted below 10 percent of their

economically active population engaged in agriculture. Relatively higher ratio of participation in tertiary sector is found in older urban areas than those of recently designated. More urban character of participation of economically active population in industry group is found in Biratnagar, Dharan, Hetaunda and Butwal in Tarai, Kirtipur, Lalitpur, and Kathmandu in Kathmandu Valley, and Pokhara in Hills (Table 18).

Table 18: Demographic and Other socio Economic characteristics of Urban Areas in Nepal by Geographic Regions (based on 1991 Population Census).

Mean calculations

Geographic regions				
Parameters	Hills/Mountain	Kathmandu valley	Inner Tarai	Tarai
Growth rates (1981-91)	17.8	6.2	11.5	8.2
Age structure(%)				
<15 years	40.4	35.1	42.1	40.8
15-59 years	53.1	59.1	53.2	54.3
> 60 years	6.5	5.1	4.7	4.9
Dependency ratio (per 100 population)				
Young	76.6	59.7	79.1	75.5
Old	12.4	9.9	8.9	9.0
Total	89.0	69.6	88.0	84.5
Sex ratio (males/100 females)				
	97.3	105.7	104.2	108.8
Literacy ratio (%)				
Total	58.7	67.3	54.7	53.9
Male	74.1	79.7	69.3	66.0
Female	44.1	54.3	39.7	40.8
Refined economic activity rate (%)				
Total	29.0	30.9	32.2	31.9
Male	59.7	60.1	63.1	61.0
Female	46.0	30.2	39.5	13.8
Major occupation (percent age of economically active population)				
Agricultural population	62.8	30.5	50.8	35.6

Regarding the state of occupational structure by urban localities in 1991, the major proportion of economically active population is engaged outside the agriculture, although there are large number of urban areas that have recorded still large proportion of economically active population is engaged in agriculture. Fourteen of total urban areas have more than 70 percent of their active population engaged in agricultural occupation. The highest proportion in non-agricultural activities is observed in Kathmandu (94.1 percent) followed by Butwal (92.9 percent) and Nepalgunj (91.1 percent) whereas the least percentage recorded in Narayan municipality (16 percent).

Demographic and other socio economic characteristics of urban population calculated at mean value by geographic regions in Nepal is presented table in Table 18. Percentage share of urban population among major three different age groups shows higher proportion of people less than 15 years in Inner Tarai and Tarai region's urban areas. Kathmandu valley region has least share of population in this age group of 60 years and over in Hills/Mountain region. It indicates higher dependency rate in Hills/Mountain than in Inner/Tarai region. Kathmandu valley region has lower figures of dependency.

Sex ratio of the hill towns shows the female dominance in average whereas all other regions have male dominance. Total literacy ratio by regions shows that Kathmandu valley and Hills/Mountain towns have better condition than Tarai and Inner Tarai region. The same situation is found in male as well as female literacy, but male literacy is always higher, whereas female literacy is far below. The wide difference in literacy between male and females is a quite significant in all urban areas. The economic activity rates of urban areas of Tarai and inner Tarai region show better position, but female activity is better in Hills/Mountain region. Tarai towns have recorded least activity rates for female in average. Occupationally Hills/Mountain towns are dominated by agricultural population.

Population characteristics show the most of urban areas are pro-rural in character. Specially, those urban areas designated after 1991 census display their more rural characteristics than those of older ones. This pattern would be the result of over-bounding of urban areas.

Concluding Remarks

During the last 50 years, Nepal has been experiencing a considerable rise in population, with increasing urbanisation. From 1952/54 to 1991, urban growth has recorded relatively rapid, although the level of urbanisation is still very low. In 1991, some slightly over 12 percent of total population of the

country lived in 58 municipalities. The dramatic rise in urban population occurred from 1981 onwards.

Regional differences in urbanisation show the Kathmandu valley has always remained higher level of urbanisation. The another key feature of urbanisation in Nepal is the predominance of Terai Region in terms of urbanisation level as well as urban growth compared to Hills/Mountain Region. Experiences show that Biratnagar, Dharan, Janakpur, Birgunj, Hetaunda, Bharatpur, Butwal, Nepalgunj, Dhangadhi in the Tarai, Pokhara in Hills and Kathmandu valley towns will be the major urban agglomeration in the future.

The distribution of total urban population according to city size shows still the domination of cities (size class I) followed by medium towns (size class III) although the proportion of total urban population in cities is decreasing over the decades. Small towns are generally characterizing in Hills/Mountain region where as large towns dominate Tarai and inner Tarai region.

City with its rank hierarchy seems to play a significant role in urban system. In Nepal, Kathmandu is only the city which has maintained its top position in the rank. Biratnagar and Pokhara have consistently risen their rank in 1991. Most of the towns, those designated after 1991 census, entered middle classes have major distortion in rank order. Nepalese urban system does not display the character as suggested by Zipf. The ratio of present actual population to optimum population for urban areas has found high differences for large and medium sized towns.

The primacy patterns of the urban areas, Kathmandu valley and Tarai region, have higher level of primacy compared to other regions. Although the Kathmandu Metropolitan City is slowing down its dominance in terms of share of urban population from 38 percent in 1981 to 24 percent in 1991, the overall situation of urban system in the country indicates that the rural-urban migration is mainly oriented towards larger towns where public services are concentrated.

The pattern of population increases in both age and sex selective, concentration in the age group between 15-60 years working age groups by a dominance of males as compared to the rural and total population. However, this disparity in age distribution between urban and rural areas has narrowed considerably over the years. Cities have sex ratios much more heavily weighted in favor of males than the national and rural figures. A further indication of male-dominant character of urban population can be obtained

from the age-specific sex ratios. The male dominant sex ratios of the urban areas are largely the result of the dominance of male selective migration from rural to urban areas.

The urban/rural activity rates show the distinct character of urbanisation in Nepal. Urban activity rate is always lower than activity rates in rural areas for both sexes in 1981 census. However in 1991, urban activity rate supersedes to the rural activity rates. Very high variation between male and female activity rates is found in urban and rural areas. Urban labour force is growing faster (at the rate of 6.67 percent annually) than the rural labour force (0.2 percent).

The low level of industrialization is clearly reflected by the predominance of economically active population engaged in agriculture both in urban and rural areas. Composition of EAP in different occupation and industries group also changed from one to another census. The predominance of tertiary activity is the most notable feature of urban economically active population in Nepal. Since 1961, this sector has been growing in urban population where as the urban labour force participation in agricultural and related activities is slightly increasing, although it is still high. The growth in secondary sector has not kept pace with increasing urbanisation in the country.

Generally Hill towns characterizes by higher dependency, lower proportion of working age population, female dominance. Although the female activity rate is better than other regions. Kathmandu valley towns have better urbanised characteristics than other regions as shown by least dependency ratio higher literacy ratio for both sexes. Inner Tarai and Tarai towns have almost similar in their characteristics with higher dependency as well as higher sex ratios. The level of literacy is not better in urban centers than other regions. Female activity rate is far below.

References

- Basyal, G. K. 2000. "Urbanisation in Nepal." Unpublished M.A. Dissertation, Central Department of Geography, T.U. Kathmandu
- Blaikie, Piers, J. Cameron and D. Seddon, 1980. *Nepal in Crisis: Growth and Stagnation at the Periphery*. New Delhi: Oxford University Press
- CBS (Central Bureau of Statistics) 1987. *Population Monograph of Nepal*. Kathmandu: CBS, HMG/Nepal.
- _____ 1995. *Population Monograph of Nepal*. Kathmandu: CBS, HMG/Nepal.

- _____ 1998. *Statistical Pocket Book 1998*, Kathmandu: CBS, HMG/Nepal.
- CEDA (Center of Economic Development and Administration), 1990. "A Study of the Environmental Problems due to Urbanization in the Some Selected Nagar Panchayats of Nepal." A Report Submitted to UNDP, Kathmandu, CEDA/TU.
- Hauser, P.M. 1961. *Urbanization in Latin America*. UNESCO/UN.
- NIUA (National Institute for Urban Affairs). 1988. *State of India's Urbanisation*. New Delhi: NIUA
- Ramachandran, R. 1999. *Urbanization and Urban Systems in India*. New Delhi: Oxford.
- Ranjitkar, N.G. and M. S. Manandhar. 1980-81. "Spatial Expansion of Kathmandu City." *Geographical Journal of Nepal*, Volume 3-4, pp 25-35.
- Roy, B. K. 1986 "Recent Urbanization in India: A Scenario." *The National Geographical Journal of India*, Vol. 3, pp 17-29.
- Seddon, D. 1993. *Nepal: A State of Poverty*. New Delhi: Vikash Publishing House.
- Sharma, A. and B.P. Maithani. 1998. "Development of Small Towns in the Eastern India (Eastern Himalayas)." Paper Presented at the Regional Consultation Meeting on Market and Small Towns in Hindu Kush Himalays (HKH), organized by ICIMOD(Draft).December.
- Sharma, P. 1989. *Urbanization in Nepal*. Papers of the East-West Population Institute, no. 110. Honolulu: East-West Centre
- _____ 1992. "A Note on Recent Trends in Nepal's Urbanisation", *The Himalayan Review*, Vol. XX-XXIII 1989-92, pp 1-13.
- Shrestha, C.B. 1981. *Cultural Geography of Nepal*. Kathmandu: K.K. Shrestha and K.L.Joshi.
- Singh, A.K. 1987. "Bihar: Urbanization in Perspective." *The National Geographical Journal of India*, Vol. 33, part 1, pp. 49-67.
- The World Bank, 1995. *Better Urban Services*. Washington D.C.: The World Bank.