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Patterns of Urban and Rural Growth of Population of Nepal

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The preparation of a sectorial account of rural and urban growth of population of Nepal is beset by problems of data and definitions. The earliest source on population by localities is the 1952/54 census. The localities identified as urban in the 1961 census do not tally with those identified in the 1952/54 census and the 1971 census urban localities do not tally with those of 1961. The 1981 census, however, includes all the 1971 census urban localities and an additional few urban centers. These inconsistencies in the identification of urban centers in the four consecutive censuses may be attributed to the cause that the criteria for identifying an urban locality is not obvious or constant from census to census. Even though the Town Panchayat Act, 1962 recommends a minimum population of 10,000 inhabitants for a locality to qualify as an urban area, the criterion used in classifying settlements into urban centers or rural settlements is found to have been based on a combination of certain characteristics like the town being a trading centre, educational and administrative centre rather than the population size. Even if one subscribes to the definition of urban areas according to the census, frequent changes in town or urban panchayat boundaries make valid comparision over time a difficult proposition. Furthermore the evidence on the levels and trends in urbanisation does not typically accumulate over time continuously. Instead, estimates of urban and rural growth must rely heavily on information from widely spaced population censuses.

In this paper, the pattern of urban and rural population growth in the country is studied with a view to compare the present urban and rural population growth rates on topographical region and administrative districts basis with the past growth rates wherever available. The practice of presenting estimates based on urban areas designated by the census under review rather than imposing a uniform set of criteria is continued in this study. A general survey of the urbanisation trend for the period 1952-1971 may be found in Shrestha (1975) and New Era (1981).

This study uses the data from the population censuses of 1961,1971 and 1981 on the proportion of urban and rural population (Central Bureau of Statistics, 1965,1971,1981). For the year 1961, the data is available for 10 urban localities whereas for the years 1971 and 1981, the data is available for 16 and 23 urban localities respectively. Rupendehi district has two urban localities in it. We have thus a total of 15 districts in 1971 and 22 in 1981 with at least one urban locality in it. We shall refer to these districts as urban districts.

The proportion of urban population in 1961,1971 and 1981 as derived from the relevant tables of the Population Censuses 1961,1971 and 1981 are presented in Table 1.

Table 1

Proportion of Urban and Rural Population in 1961,1971 and 1981

Region and District	Proportion of urban population		
	1961	1971	1981
Eastern Hills	0.003	0.052	0.077
Illam	-	0.052	0.055
Dhankuta	-	-	0.107
Eastern Terai	0.039	0.067	0.090
Jhapa	-	0.030	0.020
Morang	-	0.150	0.175
Sunsari	-	0.092	0.122
Saptari	-	0.025	0.043
Siraha	-	-	0.037
Dhanusha	-	0.043	0.081
Parsa	-	0.064	0.153
Kathmandu Valley	0.474	0.403	0.474
Bhaktapur	-	0.364	0.303
Kathmandu	-	0.425	0.557
Lalitpur	-	0.381	0.433
Central Inner Terai	-	0.099	0.124
Makwanpur	-	0.099	0.143
Chitwan	-	-	0.124
Central Terai	-	0.124	0.142
Rupendehi	-	0.124	0.142
Western Hills	0.006	0.074	0.137
Kaski	-	0.136	0.211
Palpa	-	0.030	0.061
Western Inner Terai	-	-	0.008
Dang	-	-	0.077
Surkhet	-	-	0.083
Western Terai	0.058	0.187	0.166
Banke	-	0.187	0.166
Kailali	-	-	0.106
Kanchanpur	-	-	0.259
NEPAL	0.037	0.400	0.064

Since the proportions of urban population for Dhankuta, Siraha, Chitwan, Kailali and Kanchanpur districts are available only for a census year, these districts have been dropped from the analysis.

A cursory view of Table 1 will reveal that the level of urbanisation of the nation is rather very low. On the average, out of every thousand of the country's population 37 lived in towns and 963 lived in villages in 1961. The corresponding figures for 1971 and 1981 are 44 and 956, and 64 and 936 respectively. During 1961-1981, the urban population increased from 336,222 to 956,721 or by 5.37 per cent and the rural population by 2.21 per cent. The rural population with all that implies in occupation, education, low levels of living and general backwardness is declining slowly since the urban growth is much faster than its rural counterpart. The rural-urban transfers have accelerated during the two decades.

For the year 1981, we find that the urban element is not uniform in all the districts. Kathmandu district with 55.7 per cent of population living in towns is the most urbanised district in the country with Lalitpur and Bhaktapur districts holding second and third places respectively with 43.3 and 30.3 per cent urban population. Next in the ranking order follows Kanchanpur, Kaski and Morang districts with 25.9, 21.1 and 17.5 per cent urban population. Jhapa district with 98 per cent of the population living in villages has the lowest urban ratio in the country. Siraha, Sunsari and Illam are the next least urbanised districts in the country.

The urban and rural population forms a system of two sectors each of which is subject to change in size as a result of natural increase, out-migration to other districts and in-migration from other districts in addition to immigration from outside the country. However, if we assume the intercensal difference between urban and rural growth rates to remain constant during the intercensal period, then it is possible to consider only the proportion of urban population at the two ends of a intercensal duration and extrapolate into the future the most recently observed urban-rural growth difference. Such a difference implies the rate of change of the ratio of urban population proportion to its rural counterpart and besides being relatively insensitive to changes in the completeness of census enumeration, shows considerable stability over a wide range of conditions and can be computed directly from the urban proportion that are recorded in the two censuses rather than from absolute numbers. The extrapolation using the urban-rural growth difference, in short URGD, results in an exponential time path of the proportion urbanised.

For the data given in Table 1, the URGD between the most recent observations have been computed for each of the 15 urban districts and between the three most recent observations for the urban regions. These are presented in Table 2 below.

Table 2

Urban Rural Growth Differences for the Years 1971 and 1981

Region and District	URGD		Region and District	URGD	
	1971	1981		1971	1981
Eastern Hills	0.2608	0.0182	Lalitpur	-	0.0093
Illam	-	0.0025	Central Inner		
Eastern Terai	0.0248	0.0140	Terai	-	0.0111
Jhapa	-	-0.0191	Makwanpur	-	0.0182
Morang	-	0.0114	Central Terai	-	0.0068
Sunsari	-	0.0137	Rupendehi	-	0.0068
Saptari	-	0.0243	Western Hills	0.1122	0.0303
Dhanusha	-	0.0292	Kaski	-	0.0230
Parsa	-	0.0422	Palpa	-	0.0322
Kathmandu			Western Terai	0.0573	-0.0063
Valley	-0.0125	0.0124	Banke	-	-0.0063
Bhaktapur	-	-0.0119			
Kathmandu	-	0.0230			
NEPAL				0.0086	0.0170

For the country as a whole, whereas the URGD in 1971 stood only at 0.86 per cent, it doubled to 1.7 per cent in 1981. Amongst the regions, the Eastern Hills had the highest URGD of 26.08 per cent in 1971 which declined to 1.8 per cent in 1981 and yet maintained the lead next to the Western Hills for which the URGD decreased from 11.22 per cent in 1971 to 3.03 per cent in 1981. Kathmandu Valley had the least URGD of -1.25 per cent in 1971 which improved to 1.24 per cent in 1981, which is lesser than the national URGD. In general, except for the Valley, the URGD of the regions can be seen to have lessened by 1981. In all of these cases, inclusion of a rural district of 1971 as an urban district in 1981 seems to have lowered the URGD. Furthermore an increase in the proportion of the urban population for the Eastern Hills, Eastern Terai and Western Hills has led to a decrease in the corresponding URGD. For the Valley however, an increase in the proportion of urban population has led to an increase in the corresponding URGD, and for the Western Terai a decrease in the proportion of the urban population has led to a decrease in the corresponding URGD. Before we draw any inference from these observations, we shall further explore the relationship between the URGD and the initial urban proportion.

The mean URGD for populations that fall into a particular category of initial urban proportion for the most recent URGD are presented in Table 3.

Table 3

URGD According to Initial Urban Proportion

Range of initial proportion	No. of districts		Mean URGD between two most recent observations
	1971	1981	
0-0.14	10	6	0.0152
0.14-0.28	2	6	0.0138
0.28-0.42	2	1	-0.0119
0.42-0.56	1	2	0.0189

While it is obvious that the urbanisation has progressed steadily during the decade 1971-1981 leading to the maturisation of urban areas, it is also clear that the URGD and the range of initial urban proportions are not related in any particular direction. The coefficient of correlation between the two variables for the 15 urban districts in 1981 is seen to be 0.0167. Thus the urban proportions are virtually uncorrelated with the URGD and as such no relationship between these two variables need be obtained. The initial urban proportions therefore need not be incorporated into the urban proportion projections.

The bulk of the difference in urban growth rates between the districts would be mainly attributable to the difference in the growth rate of urban population in the districts themselves, it was speculated. But even these differences in urban growth rates between the districts are not attributable primarily to more rapid population growth rates in newly emerging urban centers, because the correlation coefficient between the urban growth rates and the total growth rates for the districts was only -0.1095 which is quite negligible. This implies that the urban growth of a district cannot be predicted by the rate of population growth for that district. Even the correlation coefficient between the urban growth rate and the initial proportion urban is found to be only 0.0482. All these imply that the process of urbanisation is so premature that it is yet to make any significant impact on the growth rate of the population of a district and the initial urban proportion in the district. The large differences in urban growth rates might be more likely caused by rapid rates of natural increases in these districts and hence the rapid changes in the total population size on which the proportions are based.

Using the exponential time path for the urban rural proportions, the urban rural proportions and the urban proportions for the years 1991 and 2001 based on the 1981 URGD figures are extrapolated and presented in Table 4.

Table 4

Estimated Urban Rural Proportions and Urban Proportions for the Years 1991 and 2001.

Region and District	Estimated urban rural proportion		Estimated urban proportions	
	1991	2001	1991	2001
Eastern Hills	0.1001	0.1201	0.0910	0.1072
Illam	0.0597	0.0612	0.0563	0.0577
Eastern Terai	0.1138	0.1309	0.1022	0.1157
Jhapa	0.0169	0.0139	0.0166	0.0137
Morang	0.2377	0.2664	0.1920	0.2104
Sunsari	0.1594	0.1828	0.1394	0.1545
Saptari	0.0573	0.0731	0.0542	0.0681
Dhanusha	0.1180	0.1581	0.1055	0.1365
Parsa	0.2755	0.4201	0.2160	0.2958
Kathmandu Valley	1.0201	1.1548	0.5050	0.5359
Bhaktapur	0.3859	0.3426	0.2784	0.2552
Kathmandu	1.5825	1.9937	0.6128	0.6660
Lalitpur	0.8381	0.9198	0.4560	0.4791
Central Inner Terai	0.1582	0.1767	0.1366	0.1502
Makwanpur	0.1698	0.2401	0.1452	0.1936
Central Terai	0.1771	0.1896	0.1504	0.1594
Rupendehi	0.1771	0.1896	0.1504	0.1594
Western Hills	0.1855	0.2511	0.1565	0.2007
Kaski	0.2656	0.3342	0.2097	0.2505
Palpa	0.0842	0.1161	0.0777	0.1040
Western Terai	0.1873	0.1762	0.1578	0.1498
Banke	0.1873	0.1762	0.1578	0.1498
NEPAL	0.0806	0.0956	0.0746	0.0873

The estimated annual increment in the urban percentage can be seen to be relatively steady between 1981-2001. The average annual gain in percentage urbanised between 1981 and 2001 for the nation is projected at 0.69 per cent points. By the end of the century, the annual increment

in percentage urbanised is expected to be on the upswing for most of the districts except for Kathmandu district for which the average annual gain in percentage urbanised during 1981 and 2001 is expected to be only about 0.26 per cent points. For Bhaktapur, Jhapa and Banke, it seems that the annual average in per cent urbanised during 1981 and 2001 are on a steady decline. It is obvious however that if the projections prove to be accurate, the next century will begin with the national population still dominated by rural majority.

Moreover, Kathmandu Valley contains roughly half (54.01 per cent in 1971 and 45.67 per cent in 1981) of the national urban population. The relatively slow demographic growth in the three districts of the Valley is weighted more heavily in the national urban growth rate than in the rural rate where the slowly growing districts constitute almost 80 per cent of the total urban districts. The simple fact is that the nation is urbanising, in the sense of URGD, much less rapidly than either the Valley districts or the remaining 12 urban districts. This is so because the differentials in demographic growth rate between the two groups of districts give rapidly increasing weight to the less urban growth. If the anticipated demographic growth actually materializes, this disparity should begin to disappear as the slowly growing districts come to constitute lesser fraction of both urban and rural population. The ranking order of major districts by their urban proportion may not be expected though, to change substantially during the rest of the century.

Also, it is obvious that the source of difference between urban and rural growth rates is the net rural-urban migration. Therefore as the urban proportion increases, it would become difficult to maintain a particular URGD because the pool of potential migrants to urban areas declines as a fraction of the urban population while the pool of potential migrants to rural areas increase as a fraction of the rural population. It is reasonable to expect the URGD to decline in the long run as urban population increases. Based on the estimates of urban proportions for the years 1991 and 2001, it may be said that except in the Western Terai, in the rest of the regions the URGD will go on decreasing over the passage of time but whether at all the rural-urban migrations can be directed such that the URGD may attain a fixed level by some future date, is too early to speculate.

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