

Population Growth and its Distribution in Nepal: A Synopsis

KANHAIYA MATHEMA*

INTRODUCTION

The population distribution pattern of a country is, in general, uneven over its land area. Number of factors, such as socio-economic, environmental and demographic, affect the spatial distribution of population of a country. Nepal, by no means, is an exception in this regard.

Nepal, a "forbidden land" until 1955, has been open to the outside world by air and road after the 1951 revolution. Wedged between India to the South and China to the North, Nepal with 147181 sq.km. of land area has a little over 15 million population, of which the masculinity proportion and sex ratio are 51.22 and 105.02 respectively in 1981.

The population of Nepal has doubled in 60 years between 1911 (5368 749) and 1971 (11555 983). In the fiscal year 1985/86, per capita GDP at current price has been estimated as Rs. 2940, i.e. US \$ 133. The literacy rate with respect to population aged 10 years and above is 23.3 percent. Modern means of transport and communication are far from satisfactory with a very poor sanitation. The dominance of agriculture is well reflected in its share in GDP which is 59.3 percent in 1985/86. No doubt, its share in GDP is steadily falling.

In spite of increased GDP (at 1974/75 price, it has increased by 4.1 percent in FY 1985/86), a great many Nepalese people are becoming more disadvantaged each year. The poorest of the poor has increased to almost 43 percent currently.

In Nepal, where per capita income has remained almost stagnant for a number of years, it is high time to raise the growth of national output over the rate of growth of population (2.7 percent at present). This is important not only for meeting the minimum basic needs of the masses but also is a necessary condition to attain self-reliance which is one of the features of development.

ADVENT OF POPULATION ESTIMATION IN NEPAL

An estimation of the size of ancient Nepal's population is only a guesswork in the absence of any reliable records. During that time a need for census was not probably visualized and its necessity might not have been felt. The importance of census was only felt in the modern

*Mr. Mathema is a Lecturer in Economics at Tribhuvan University, Kirtipur.

era and, accordingly, population census became the principal source of study of size and composition of population in recent times.

The 1911 census, the first of its kind, recorded the total population of Nepal as 5638749. This operation was repeated every ten years up to 1942. However, census of 1952/54 carried out in two parts is considered as the first scientific and systematic census. The census of the eastern part of the country was undertaken in 1952 while that of western part was undertaken in 1954. Since then, population censuses were undertaken in 1961, 1971 and 1981.

POPULATION SIZE AND INTERCENSAL GROWTH RATE (1911-1981)

Nepal's demographic situation is said to be worst in the world and is deteriorating steadily. Population density with respect to arable land (656.7 per sq. km. of arable land) far exceeds that of Pakistan, Bangladesh and India. Moreover, the average density for Nepal marks huge differences, with the Hills over three times as densely populated as the Terai. The following table shows the enumerated population and the annual growth rate since the first census 1911 to the 1981 census.

Table I
Population size and growth (1952/54-1981)

Year	Total Population	Intercensus increase	Percentage increase	Average annual growth rate
1911	5638749		-	-
1920	5573788	-64961	-1.2	-0.1
1930	5532574	-41214	-0.3	-0.1
1941	6283649	751075	13.6	1.1
1952/54	8456625	1972976	31.4	1.5
1961	9412996	1156371	14.0	1.7
1971	11555983	2142987	22.8	2.1
*1981	15022839	3466856	30.0	2.7

Source: ESCAP (1980), Population of Nepal, p. 13.

*CBS (1987), Population Monograph of Nepal, p. 7.

It can be seen from the table that there was a decline in the absolute number of population between 1920 and 1930, while a sharp increase in population appears to have taken place between 1941 and 1952/54. ESCAP (1980) sees the reasons for the decline in population from 5638749 in 1911 to 5573788 in 1920 as a heavy casualty of the Gorkha troops in the first world war, high incidence of mortality due to the influenza epidemic of 1917, and underenumeration in the 1920 census.

The decrease in the population between 1920 and 1930 by 41214 is also attributed to considerable underenumeration in the 1930 census. Moreover, "the fear of being conscripted into the army for possible war against Tibet in 1929 may have also caused some underreporting particularly on the part of adult men in 1930." Other reasons for underreporting appears to have been the lack of appreciation of the value of a census by the majority of the people in the country.

It is somewhat surprising that the intercensal period 1930-1942 recorded an increase of population by 13.6 percent in spite of the fact that this period was the period of second world war which saw the large scale recruitment of Gorkhas in the British Army. Hence, the increase in the population has largely to be explained in terms of gross overenumeration.

The intercensal period 1942-1952/54 marked an increase of 1972976 (31.4 percent) people in the Nepalese population which was largely due to the return of the discharged army personnel after the second world war.

It is clear from the above table that over the period of about two decades from 1952/54 to 1971, the population of Nepal increased by almost 3.3 million. Similarly, in ten years time period between 1971 and 1981, the population in the country increased by 3.4 million. The average annual growth rate of the population of 1.7 percent during 1952/54 to 1961 has increased to 2.1 percent over the period of 1961-1971. In addition, the growth rate of population during the intercensal period 1971-1981 has been registered at 2.7 percent. Given this growth rate, Nepal's population is likely to double in next 26 years.

The high rate of growth of population in recent decades is largely due to a substantial decline in mortality. For example, the estimated crude death rates of Nepal were 27 and 21 during 1952/54-1961 and 1961-1971 respectively. This rate declined further to 14 during 1971-1981. The decline in mortality is reflected in the increased population of children aged 0-4 in the total population that increased from 13.22 percent in 1952/54 to 15.41 percent in 1981. Similarly, the old dependency ratio has also increased from 8-9 in 1952/54 to 10.8 in 1981. On the other hand, fertility continued to remain at high level (6 children per woman) because of improvements in medical facilities and the relative ineffectiveness of programmes to control fertility. However, ADB suspects that in-migrants from neighbouring states of India might have further contributed to this high rate of growth.

Although the effect of international migration on the growth of Nepal's population cannot be ignored, the scanty nature of data on migration may be one of the constraints preventing the detailed study of the impact of migration on the country's population growth.

Nevertheless, the 1961 census reported that 328480 Nepalese were absent for at least six months of the year and that over 90 percent of this number was in India. The census also reported that there was an

immigration of 337620 foreign nationals, mostly Indians, into the country during the same period. It resulted into a net immigration of 9140 persons in Nepal during that period.

Likewise, the 1971 census reported that 337446 foreign nationals were residing in Nepal. According to 1974/75 Demographic Sample Survey, about 43000 Nepalese out-migrated from the country whereas about 34000 foreigners in-migrated in Nepal. The number of emigrants in 1976 is estimated at 73000 persons and the number of immigrants were 44000. In the mean time, the 1981 census recorded the number of immigrants as 234039 and that of emigrants were 402977 respectively.

In recent years, with the eradication of malaria and the development activities in Terai, Indians have been found to be moving in from more densely populated states of India to seek employment in the Terai part of the country. The second major immigration has been of domicile Nepalese from Burma. And the third immigrant group constituted the Tibetan refugees from the early 1950s and those who move from Bangladesh during the war of independence in the early 1970s.

This, high fertility coupled with reduced mortality has largely contributed to the high growth rate of population in Nepal.

Given the current (1971-1981) rate of growth of population (2.7 percent per annum), the population of Nepal is likely to double in every 26 years resulting in an increased dependency and non-land ratios that ultimately would affect adversely on the process of economic growth and development of the country.

NEPAL'S REGIONAL PATTERN OF POPULATION GROWTH

During the intercensal period 1911 - 20, a reduction in the population of the hill region was marked in absolute terms while the Terai and Kathmandu valley recorded a slight increase in population (Appendix I).

Between 1920-30 there was a decline in the population of the Hills and Kathmandu valley whereas the population of the Terai increased slightly.

The 1930-42 intercensal period recorded the first increase in Nepalese population in all three regions of the country. In the Hills, the annual rate of population growth was about 1.7 percent compared to 0.03 percent in the Terai (Appendix I).

The rate of growth of Nepalese population between 1942 and 1952/54 was 2.5 percent per annum.

A bird's eye view of the analysis of population growth by region indicated that the highest rate, 2.7 percent, was in the Terai, while the second highest, 2.4 percent, was in the Hills.

Between 1952/54 and 1961, the Terai region recorded an average annual rate of growth of 2.4 percent which was higher than the national average of 1.65 percent, while the rates for the Hills (1.32 percent) and the Kathmandu valley (1.42 percent) were lower than the national average.

Between 1961 and 1971, the regionwise average annual rate of growth of population was quite different. The rates in the Terai and Kathmandu valley were higher and that of the Hills were lower than the national average. The very high rate observed in the Terai (3.38 percent) was largely due to the influx of migrants from the Hills and also migrants from the border states of India. In addition, another important cause for such a high growth rate of population in the Terai part of the country may be the successful malaria eradication programme. The lower growth rate of population in the Kathmandu valley which was below the national average between 1952/54 and 1961, recorded a rate above the national average between 1961 and 1971.

However, the rate for the Hills recorded a decline during the same period. This decline was attributed to the large scale out-migration from the Hills because of increasing pressure on agricultural land, decline of traditional trade with Tibet, the opening of new fertile low lands in the Terai, and the lack of alternative employment sources in the Hills. Moreover, there has been a shift in the population from rural to urban areas. The urban population which was only 2.8 percent in 1961 increased to 4 percent of the total population in 1971.

The national average annual growth rate of population in Nepal between 1971 and 1981 is an all time high (2.7 percent per annum). The continuation of growth trend of 1971 census in 1981 has been confirmed by the high growth rate (4.11 percent) of the Terai.

POPULATION DISTRIBUTION BY ECOLOGICAL ZONES

Relief, as it has its direct bearing on climate, soil and water, plays an important role in the distribution of population in a mountainous country such as Nepal. The topography of Nepal is quite unevenly interspread with valleys and ridges. The country's population distribution is such that the valleys are densely populated whereas ridges have sparse population.

The mountainous regions (Mountain and Hill), which cover about 77 percent of the total land area, contained about 62 percent of country's total population in 1971. The population living in this region, however, declined to 56 percent in 1981.

On the other hand, the Terai with 23.0 percent of the total land area had about 38 percent of the total population in 1971. In 1981, the Terai population increased to about 44 percent.

The population density, which in 1957 reached about 211 persons per square mile nationally, as has been said, is distributed unevenly. The

Kathmandu valley had the highest density at 2098 persons per square mile, was followed by the Terai at 391 persons per square mile. The densities of the Mountain, and the Hill were almost equal with about 158 persons per square mile.

The inter regional differences in population distribution and density are interesting and indicate a pattern which is generally associated with the rainfall pattern and consequently with the fertility of the soil. The wetter eastern region with an average annual rainfall of 1778 mm has an advantage over the relatively dry western region where the average rainfall is 762 mm. Thus density declines westward with the decreasing strength of the monsoon.

In Nepal where agriculture accounts for 56 percent of GDP in 1984, the population density can more appropriately be measured on the basis of per man cultivated land.

It is observed that the density of population increased from 79 persons per sq. km. of the total land area in 1971 to 102 persons in 1981 which, in other words, is an increase by 30 percent during a decade. This increase was found in all the geographical zones of the country but most prominently in the Terai zone. The density of population is highest in the Terai followed by the Hill and Mountain in both 1971 and 1981 censuses.

CBS (1987) reports that density measured in terms of population per sq. km. of arable land has also increased by 30 percent from 505 persons in 1971 to 657 persons in 1981.

DISTRIBUTION OF POPULATION BY RURAL-URBAN RESIDENCE

In Nepal, the classification of settlements into rural and urban seems to be arbitrary and not based on any clear definition. However, to follow CBS (1987), the urban population is defined as population in towns with 10000 or more persons.

The population distribution of Nepal by rural urban residence in the last four census years is as given in the following table,

It is seen from the table that the proportion of urban population to the total population has increased from 2.9 percent in 1952/54 to 3.6 percent in 1961 and to 4.0 percent in 1971 which again increased to 6.3 percent in 1981. However, the pressure of population in rural sector has remained high.

The growth of urban population gained its momentum since 1971. During the last 10 years (1971-81), urban population increased by 103 percent. In other words, it increased at the rate of 7.30 percent per annum as compared to 2.4 percent growth rate of rural area (Appendix II).

Table II
Distribution of the Population by Rural Urban Residence (1952/54-1981)

Census year	Sector	No. of locations	Population	Percent
1952/54	Rural	28760	8018630	97.1
	Urban	10	237995	2.9
1961	Rural	28446	9076774	96.4
	Urban	16	336222	3.6
1971	Rural	3915	11094045	96.0
	Urban	16	461938	4.0
1981	Rural	-	14085652	93.7
	Urban	23	937187	6.3

Source: CBS (1977), The Analysis of Population Statistics of Nepal, p.38.

CBS (1987), Population Monograph of Nepal, p. 180.

CONCLUSION

The rate of population growth and the direction of its movements have important implication for the socio-economic development of the country. The immediate effect on forest resources has been alarming. More than 7000 sq. km. of forest areas have been converted into cultivable land during 1975/80. The rate of destruction of forest is 2 percent per year in the country. The process of deforestation is certain to continue with adverse impact on both the environment and agricultural productivity. The problem of unemployment will similarly be exacerbated.

The overall foodgrain production has declined by 7.8 percent in the current fiscal year as compared to the last year. The Nepalese economy could achieve only 30 percent rate of growth in 1984/85 because of sluggishness in agricultural production leading to an increased pressure on imports. It has further been reflected in the adverse trend in the balance of payment situation for the last few years. An adverse balance of payment will, in turn, restrict the ability of the country to import capital goods which are very essential for agricultural development in particular and economic development in general. Such constraints might further exacerbate the unwanted socio-economic problems in the country.

Appendix Table I

	Hill	Terai	Kathmandu valley	Nepal
Enumerated population				
1911	3292911	2054959	290879	5638749
1920	3144843	2122036	306909	5573788
1930	3139854	2130487	262233	5532574
1942	3819931	2138579	325139	6283649
1952/54	4979713	2865917	410995	8256625
1961	5531307	3421699	459990	9412996
1971	6167039	4769763	618911	11555983
Intercensal increase				
1911-1920	-148068	67077	16030	-64961
1920-1930	-4989	8451	-44676	-41214
1930-1942	680070	8092	62906	751075
1942-1952/54	1159782	727338	85856	1972976
1951/74-1961	551594	555782	48995	1156371
1961-1971	636002	1348064	158921	2142987
Average annual growth rate				
1911-1920	-0.51	0.36	0.60	-0.13
1920-1930	-0.02	0.04	-1.56	-0.07
1930-1942	1.65	0.03	1.81	1.08
1942-1952/54	2.44	2.70	2.15	2.51
1952/54-1961	1.32	2.24	1.42	1.65
1961-1971	1.09	3.38	3.01	2.07

Source: ESCAP (1980), Population of Nepal, p. 16.

Appendix Table II

Percentage distribution of urban and rural population, percentage change in inter censal period and rate of growth of urban, rural and total population (1952/54 - 1981)

(in percent)

Census year	urban	rural	Inter censal change in urban population	Rate of growth		
				urban	rural	total
1952/54	2.9	97.1	-	-	-	-
1961	3.9	96.4	42.5	4.53	1.56	1.65
1971	4.0	96.0	37.4	3.22	2.03	2.07
1981	6.3	93.7	107.1	7.55	2.40	2.66

Source: CBS (1987), Population Monograph of Nepal, p. 180.

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