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The Length of Economically Active Life : Nepal, 1971

Introduction

THE Himalayan Kingdom of Nepal, sandwiched between the two most populous countries in the world, had a population of 14.4 million in 1981, according to the Population Reference Bureau's World Population Data Sheet (PRB, 1981). The population of Nepal has all the characteristics of a developing country—high birth rate, high death rate, high growth rate, young age structure, very low degree of urbanisation, low per capita gross national product and great dependency on the primary sector. Proper indicators of these characteristics are available in the Population Data Sheet. A compendium of the demographic characteristics of Nepal is given in the Bureau of Census' (1979) country demographic profile of Nepal.

In 1981, the dependency ratio in Nepal was 82 per 100. That is to say, for every 100 income earners there were 82 dependents, 76 of whom were children. If we use the ratio of non-workers to workers as the dependency ratio, then Nepal had 150 non-workers to every 100 workers in 1971.

A good indicator of the economic-demographic situation is the length of economically active life. Even though the data are available from the 1971 census of Nepal, the Bureau of the Census has not provided estimates of the length of working life for Nepalese men and women. Working life tables and their parameters have been developed for Bangladesh (Bhag, 1970; Krishnan, 1977) and Pakistan (Bean, 1967; Krishnan, 1981). For a comparative study of the demographic aspects of economic life, such estimates for Nepal might be helpful. The objective of this paper is to present the tables of work-

ing life for Nepal with the help of the 1971 census data. It may be noted that the quality of the data leaves much to be desired, as noted in the country profile of the Bureau of the Census. For the purposes of this study, the data reported in the profile have been utilized,

Characteristics of the Labour Force

According to the Bureau of the Census, the adjusted census population of Nepal in 1971 was 12.1 million (6.153 million males and 5.996 million females). Of those, 8.1 million were 10 years and over in age. Of the 6.153 million males, 3.434 million were economically active and of the 5.993 million females, 1.418 were working. Thus the overall crude participation rate was 39.9 per 100, the male rate being 53.2 per 100 and the female rate 23.7. If the risk population is defined as those aged 10 years and over, then the refined rates of participation are computed as 59.9 per 100 (overall); 82.9 per 100 (male) and 35.1 per 100 (female).

A comparison with the labour force situation in 1961 would have been helpful to examine for trends with a view to concluding whether the economic conditions were improving, or not. But the data are not really comparable. The Census Bureau has extracted the following from the Nepal Central Bureau of Statistics:

Both the 1961 and 1971 censuses defined economically active as those people involved in "gainful work" at the time of the census. Also included were those persons who were seeking work at the time of enumeration, but had worked for a total of at least 8 months in the past. Differences in the interpretation of gainful work and the 8 month reference period appear to be the main reason for the decline in the percent of the population which is economically active. Of particular note is the decline in female participation rates brought about, in large part, by the fact that the "1971 census was more strict in verifying female activities and distinguishing the active females from the inactive ones."

In view of this, we do not plan to compare the changing labour force participation rates in Nepal between 1961 and 1971.

The distribution of the labour force by sex and industry is given in Table 1. Nearly 93 per cent of the 3.4 million male workers are employed in the primary sector. As for the females, 98 per cent of the 1.4 million economically active are engaged in the primary sector. Manufacturing accounts only for a negligible number of the workers. The Services sector has the second highest

TABLE 1—DISTRIBUTION OF LABOUR FORCE, BY SEX AND INDUSTRY
NEPAL 1971

<i>Industry</i>	<i>Per cent distribution</i>	
	<i>male</i>	<i>female</i>
Agriculture, forestry, hunting and fishing	92.8	98.2
Mining and quarrying	—	—
Manufacturing	1.3	0.5
Construction	0.1	—
Electricity, gas, water and sanitary services	—	—
Commerce	1.6	0.6
Transport, storage, and Communication	0.3	—
Services	3.8	0.8
Total	100.0	100.0
No. of classified workers (in thousands)	3434	1418

SOURCE : Bureau of the Census, Nepal : Country Demographic Profile, 1979.

share of both the male and the female workers. Nepal's is thus an agricultural economy, par excellence. A sex differential is noticed in the industrial distribution of the labour force; sectors such as Manufacturing, Services, Commerce, and Electricity, Gas, Water and Sanitary Services being favourable to male employment, while the primary sector to female employment.

In Table 2, the occupational distributions of the male and the female workers are shown. The occupations in the primary sector dominate as anticipated. It is clear that clerical workers, sales workers, craftsmen, and recreation workers are mostly drawn from the male pool. The sex differential noticed in Table 1 is reinforced here.

It is interesting to note the classification of workers in the agricultural (primary) and non-agricultural (non-primary) sectors by their status. This is shown in Table 3. Of the 3.2 million male agricultural workers, 89.3 percent are "Employers and Own Account Workers", 7.5 percent are "Wage Earners" and only 3.2 per cent form "Unpaid Family Workers". Of the 1.4 million female agricultural workers, 90.0 per cent are "Employers and Own Account Workers"; some 2.8 percent are "Wage Earners"—slightly lower than that of the males—

TABLE 2—DISTRIBUTION OF LABOUR. FORCE, BY SEX AND OCCUPATION, NEPAL 1971

<i>Occupation</i>	<i>distribution</i>	
	<i>Male</i>	<i>Female</i>
Professional, technical and related workers	0.7	0.1
Administrative, executive and managerial workers	—	—
Clerical workers	1.3	0.1
Sales Workers	1.5	0.5
Farmers, fishermen, hunters, loggers, miners, quarrymen and related workers	92.8	98.2
Workers in transport and communication	—	—
Craftsmen, production-process workers and labourers not classified elsewhere	2.8	0.7
Service, sport and recreation workers	0.8	0.4
Total	100.0	100.3

SOURCE : See Table 1.

TABLE 3-DISTRIBUTION OF AGRICULTURAL AND NONAGRICULTURAL WORKERS, BY STATUS AND SEX, NEPAL 1971

<i>Status</i>	<i>Percentage distribution</i>	
	<i>(agricultural</i>	<i>non-agricultural</i>
Male		
Total Classified workers (in thousands)	3187	247
Employers and workers on own account	89.3	32.1
Salaried employees and wage earners	7.5	66.4
Unpaid family workers	3.2	1.5
Total	100.0	100.0
Female		
Total classified workers (in thousands,)	1392	26
Employers and workers on own account	90.0	44.8
Salaried employees and wage earners	2.8	50.3
Unpaid family workers	7.2	4.9
Total	100.0	100.0

SOURCE : See Table 1.

and 7.2 per cent "Unpaid Family Workers"—slightly higher than that of the **males**. Thus these male-female distributions of agricultural workers by status **differ** in regard to the "salaried employees and wage earners" and the "unpaid family workers" classes.

The per cent distributions of the nonagricultural workers by status reveal that the "wage earners" class accounts for the largest share of the workers, followed by "employers and own account workers" class and "unpaid family workers" category. Again a sex differential may be noted here—proportionately more females in the "employers and own account workers" and "unpaid family workers" categories.

Age Pattern of the Labour Force Participation

The age specific labour force participation rates for the Nepalese males and females are shown in Table 4.

Male. The age pattern of the male labour force participation in 1971 is of the

TABLE 4—AGE SPECIFIC LABOUR FORCE PARTICIPATION- NEPAL 1971

<i>Age interval</i>	<i>Rate per 100</i>	
	<i>Male</i>	<i>Female</i>
10 years and over	82.9	35.1
10-14 years	59.2	40.1
15-19 years	75.7	46.2
20-24 years	89.8	39.2
25-29 years	95.1	36.6
30-34 years	96.6	33.9
35-39 years	97.4	34.0
40-44 years	97.2	32.9
45-49 years	96.8	32.5
50-54 years	94.0	30.5
55-59 years	90.3	27.7
60-64 years	64.1	17.9
65 years and over	40.5	10.4

SOURCE : See Table I.

H.H. type in Durand's (1975) terminology. That is to say males enter the labour force early in the life span in large proportions and retire late in life. Even if the 1961 census data on labour force are not being analyzed here, it may be pointed out that the male age pattern at that time was also the H.H. type. Thus in the decade 1961-1971, the male age pattern has not been subject to any remarkable shift.

Female. The female age patterns of the developing countries can be any one of the six types noted by Durand (1975), depending on the stage of development, or modernization of the country. Nepalese women in 1971 had the C-1 type age pattern—i.e. early peak without shoulder. In 1961 too, the female age pattern of labour force pattern was of the same type.

A Comparison with Canada- In Figure 1, the graphs of the age specific parti-

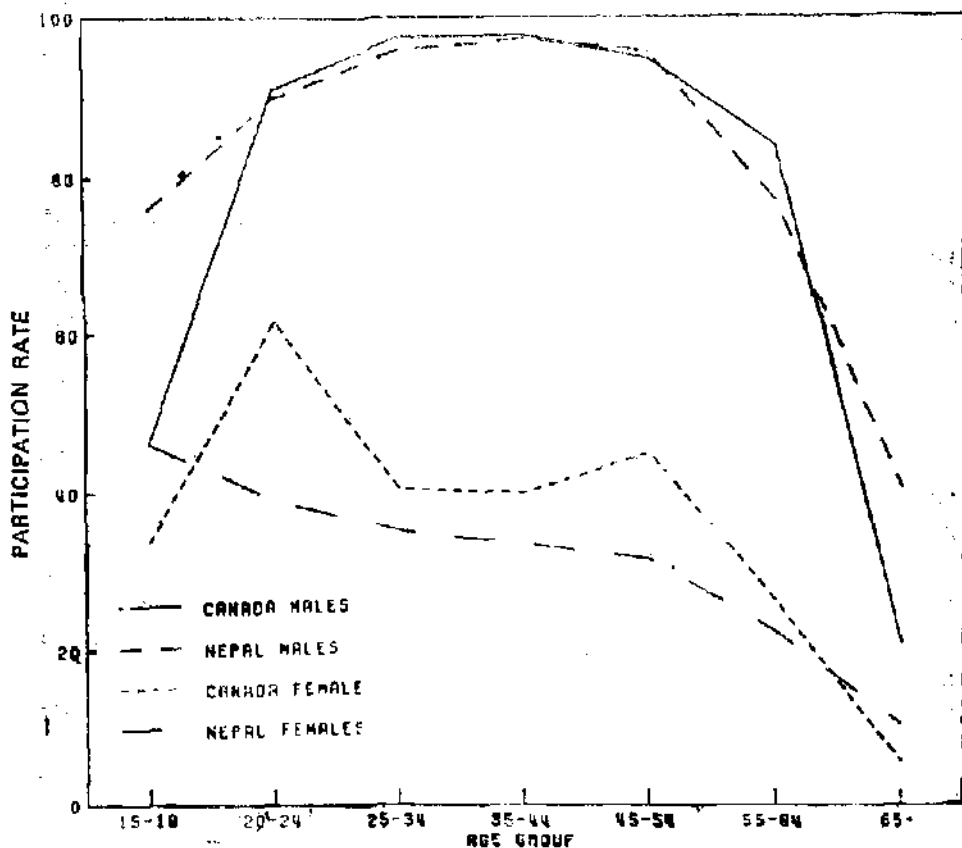


Fig. 1. Labor force Participation in Canada and Nepal : 1971.

icipation rates for the males and the females of both Canada and Nepal are shown. The figures for Canada are from Gnanasekaran (1974).

The following conclusions easily ensue from these graphs:

- (a) Male participation rates are much higher among the youth (less than 20 years of age) of Nepal compared to Canada.
- (b) At the ages of peak adult participation, a slightly higher proportion of males are in the work force in Canada as compared to Nepal.
- (c) Participation rates at older age groups are higher in Nepal than in Canada.
- (d) Participation rates for females are lower in Nepal than in Canada.
- (e) Participation rates of females in Nepal have a unimodal distribution, while those of Canadian females a bimodal form.
- (f) While the female rates are lower to the male rates in both countries, the Nepalese male-female differential is somewhat larger than the Canadian one.

Working life Tables

In Tables 5 and 6, abridged working life tables for Nepal are presented. The age specific participation rates and the life table values for this exercise have been taken from the Census Bureau's Profile. According to the Census Bureau, the male life expectancy at birth in 1974-76 was 44.7 years and the female one, 41.8. The life table functions shown in the Profile have been used here. The methodology suggested by the United Nations (1968) has been followed in the construction of the working life tables.

First we look at the working life expectancy (WLE) of males. At birth, the WLE of a Nepalese male in 1971 is computed as 30.4 years. It increases to 40.1 at age 5 and reaches a maximum of 41.5 at age 10. From that point onwards, the WLE decreases steadily to 4.2 years at age 65. The life expectancy (LE) at the beginning of the various age intervals is also shown in Table 5. $(1 - WLE/LE) \times 100$ is the percentage of life time economically inactive. These are also shown in Table 5. At birth, a Nepalese of the sterner sex can hope to spend 32.0 per cent of his life time in non-economic activities and this is reduced to 25.0 at age 5. Assuming that most of the males in Nepal enter work force at age 10, hardly less than 20 per cent of the life time is spent in non-economic activities until age 40. At age 65—the age of retirement in the western world, nearly 40 per cent of a male's life time is devoted to economic pursuits.

Let us now look at the female WLE. At birth, a Nepali girl had a WLE of

TABLE 5-ABRIDGED WORKING LIFE TABLES, MALES : NEPAL, 1971

Interval	Specific activity Rates per 100 in		Survivors at the beginning of the age interval, 10-100,000	Expectation of life at the beginning of the age interval			Per cent lifetime inactive
	Age interval	At the beginning of the age interval		Total	Eco active	Inactive years	
-14	59.1	29.6	73,386	50.2	41.5	8.7	17.3
-19	75.7	67.5	72,134	46.0	39.2	6.8	14.8
-24	89.8	82.8	70,367	42.1	36.3	5.8	13.8
-29	95.1	92.5	68,568	38.1	32.7	5.4	14.2
-34	96.6	95.9	66,715	34.1	28.8	5.3	15.5
-39	97.4	97.0	64,769	30.0	24.8	5.2	17.6
-44	97.2	97.3	62,519	26.1	20.7	5.4	20.7
-49	96.8	97.0	59,642	22.2	16.8	5.4	24.3
-54	94.0	95.4	55,580	18.6	13.0	5.6	30.1
-59	90.3	92.2	49,848	15.5	9.5	6.0	38.7
-64	64.1	77.2	41,392	12.8	6.2	6.6	51.6
	40.5	52.3	33,786	10.4	4.2	6.2	59.6

SOURCE : Computed from the data on labour force participation and the life table values for 1972-74 available in the Profile prepared by the Census Bureau.

11.2 years in 1971. This rose to 14.9 years at age 5 and reached a peak of 15.5 years at age 10. From then on, the WLE is decreasing reaching a value of 1.1 years at age 65.

Computation of the percent of life time economically inactive shows that at birth, the Nepali females were expected to spend nearly 73 percent of their life time inactive. In the reproductive period of 15-44 years, some 25 to 32 per cent of the life time was spent in economic pursuits, that is to say some 68 to 75 per cent of the life time was devoted to non-economic activities. Obviously, most of these non-economic activities are in the areas of child bearing, child rearing, and other domestic works. At age 65, a Nepali member of the fair sex spent some 11 percent of her life time in the production of economic goods and services.

TABLE e—ABRIDGED WORKING LIFE TABLES, FEMALES - NEPAL, 1971

Interval	Specific activity rates per 100 in		Survivors at the beginning of the age interval 10-100,000	Expectation of life at the beginning of the age interval			Per cent lifetime inactive
	Age interval	At the beginning of the age interval		Total	Eco active	Inactive years	
—14	40.1	20.1	72,340	46.9	15.5	31.4	67.0
—19	46.2	43.2	70,858	42.8	13.8	29.0	67.8
—24	39.2	42.7	68,647	39.1	11.9	27.2	69.6
—29	36.6	37.9	66,239	35.5	10.3	25.2	71.0
—34	33.9	35.3	63,556	31.8	8.9	22.9	72.0
—39	34.0	34.0	60,504	28.3	7.6	20.7	73.1
—44	32.9	33.5	57,068	24.9	6.3	18.6	74.7
—49	32.5	32.7	53,326	21.4	5.0	16.4	76.0
—54	30.5	31.5	48,970	18.1	3.8	14.3	79.0
—59	27.7	29.1	43,442	15.1	2.7	12.4	82.1
—64	17.9	22.8	36,501	12.5	1.6	10.9	87.2
	10.4	14.2	28,670	10.2	1.1	1.1	89.2

SOURCE : See Table 5.

Loss of Working Life Due to Mortality

Working life is cut short by many factors. Over and above the norms regarding entry into and exit from the labour forces, one has to consider the force of mortality and the availability of opportunities as well. In the developing countries, the mortality factor has to be reckoned with. We shall compute here the loss resulting from the high mortality conditions in Nepal. For the computation, we shall take 65 - age group as of 15 years in length. The U-N, methodology is followed and results are given below.

	Males	Females
(a) Gross years of active life during		
(i) 10-64 years	42.7	18.7
(ii) 10-79 years	49.8	20.2
(b) Expectation of active life at age 10	41.5	15.5
(c) Loss due to mortality (i.e., (a)-(b))		
(i)	1.2	3.2
(ii)	8.3	4.7
(d) Loss as a percentage of gross years		
(i)	2.8	17.1
(ii)	16.7	23.3

Mortality seems to take a heavier toll of the female rather than the male working life.

A Comparison with Some Nations of South Asia

The WLEs at selected ages for the men and women of Nepal's nearest neighbours sometime during the seventies are shown in Table 7.

Great caution has to be exercised in interpreting the results here on a comparative basis. There are social, cultural, political and religious differences among these populations. These differences have an influence on the female labour-force participation. Again in the census, or in surveys, the rigor with which people are classified into the various labour force categories differs over time and among nations. The comments of the Central Statistical Bureau of Nepal, quot-

TABLE 7—WORKING LIFE EXPECTANCY AT SELECTED AGES IN SELECTED SOUTH ASIAN COUNTRIES

Age	Bangladesh, 1974		India, 1971		Nepal, 1971		Pakistan, 1978	
	Males	Females	Males	Females	Males	Females	Males	Females
15	42.2	1.6	43.1	9.0	39.2	13.8	41.8	3.0
20	39.9	1.4	40.9	8.4	36.3	11.9	39.2	2.8
25	37.1	1.3	37.6	7.7	32.7	10.3	35.7	2.6
30	33.6	1.2	33.6	6.9	28.8	8.9	31.9	2.3
40	26.3	0.9	25.5	5.1	20.7	6.3	24.0	1.7
50	19.1	0.6	17.7	3.2	13.0	3.8	16.4	1.1

SOURCE : Huq (1978), Krishnan (1977, 1981).

ed by the Bureau of the Census, are of particular interest here. So only broad conclusions can be drawn from the above table.

Indian males seem to fare better than the males of Bangladesh, Nepal, and Pakistan practically at all ages. It is interesting to note that, at later ages, Bangladesh males have a slight edge over Indian males. At the beginning, all the nations seem to offer almost similar work chances during the life time to their male youths.

When the female population is considered, Nepali females have the highest working life at all ages. Indian females are better off than the Pakistani and the Bangladeshi females. Islamic societies do not look favourably upon the participation of females in the labour force.

It is difficult to go beyond these statements. To explain these differences in great detail, we have to learn not only more about the quality of data and definitional differences, but also more about the social structural differences between them.

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