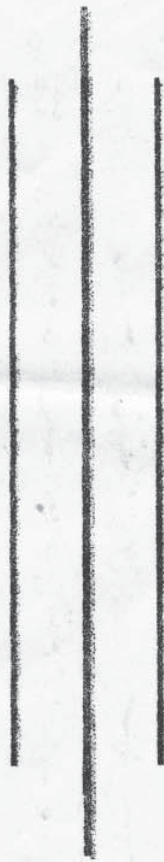


URBAN POPULATION SURVEY - 1996
(An Analytical Report)



His Majesty's Government
National Planning Commission Secretariat
Central Bureau of Statistics
Ramshah Path, Kathmandu, Nepal

1997

Preface

The need of study of urban population to provide up-to-date data in the context of rapid changes in socio-economic, demographic and migration pattern in the municipalities is felt essential. Taking it into consideration, urban population survey was carried out in 1996. Data thus collected has been analysed and presented in this volume.

The present analysis includes age-sex distribution, employment status, migration, literacy, fertility and mortality situation, and household physical facilities of the municipalities. Also included are methodology including a brief notes on sample design and household analysis.

I wish to thank each of the individual authors for their valuable contribution in writing the chapters and Mr. B.D.S. Dangol, Deputy Director, CBS, for organising all aspects of the field work and the analysis activities efficiently. Special thank goes to Ms. Shavitri Singh, Deputy Director General, CBS for co-ordinating all activities of this study effectively. I wish to thank Mr. Suresh Prasad Kayastha who assisted us in preparing the manuscript of this volume for the press.

Last but not the least, I wish to express our sincere thanks and appreciation of the generous support provided by UNFPA for this work.

September, 1997

Keshav Raj Sharma
Director General
Central Bureau of Statistics

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CHAPTER I

Methodology

1. Introduction

Since last three decades there has been rapid population growth in the municipalities of the country. During the decade 1981-91 the total urban population increased by 77 % against 17% increment in the rural area. In 1952/54 Kathmandu was the only city having population of more than 100,000. After about 40 years this number became three folds in 1991 with a population of 421,258 in Kathmandu, 129,388 in Biratnagar and 115,865 in Lalitpur. Pokhara also has almost achieved this distinction. The main reason for such high population growth in these areas is the high influx of population from all over the country. On the other hand, a large part of total urban population growth is due to the extension or annexation of areas into the existing municipalities as well as growth of population in such urban places. It is believed that concentration of facilities related to everyday human living like government and non-government departments, offices, teaching institutions, health institutions are the main attraction for the resulting influx of people from rural area.

2. Objective

It is known that the municipalities are having rapid changes in the socio, economic, and demographic indicators. In this context the information obtained from the latest census of 1991 may not be valid to use as changes might have occurred to greater extent after the 1991 census. Hence it was felt necessary to generate or collect current statistics as far as possible for making an up-to-date study of the phenomena or process of the growth of municipal area, preferably at the middle of the census period through a sample survey. Accordingly this survey was undertaken in order to provide current statistics of municipal areas.

Basic objectives of survey were to provide (a) socio, economic and demographic indicators of urban population in general as well as in-migrants and (b) physical facility available to the households in the municipalities.

¹ In the time of this survey, there were only 36 municipalities. So this study is based only on 36 municipalities.

3. Data Collection Methodology

Data were collected through a household survey by means of several separate questionnaires. In this regard, basically two types of questionnaire were used in this survey – the household questionnaire and the individual questionnaire.

The household questionnaire listed all members of each sampled household on the basis of usual place of residence. Some basic information of each person listed, like age, sex, education, marital status, place of birth and others was collected. These enlisted basic information were also used to sort out men/women eligible to administer the individual questionnaires. Besides the household questionnaire, another set of questionnaire on physical facilities available to each household was also administered at the household level.

Three sets of questionnaire were used to get information on migration, marital indices including recent child births and employment at the individual level. These questionnaire were administered to each eligible men/women as identified by the household roster in the sample areas.

- (a) The individual questionnaire on marital indices was administered to all ever married women of reproductive age (15-49 yrs.).
- (b) the individual questionnaire on employment was administered to all men/women aged 10 years and above.
- (c) The individual questionnaire on migration was administered to all men/women whose current place of residence was different from place of birth and the reported cause of migration was other than dependent and married.

4. Sample Design

The sample size was set at 4,000 households in 100 compact clusters known as ward/sub-ward. Size of each cluster was 40 households. 2 clusters were allocated purposively in each municipality, totalling 72 clusters in 36 municipalities. This enhanced the representativeness of each municipality. The remaining 28 clusters were distributed in the municipalities with probability proportion to size. As a result the number of clusters per municipality varied from a

CHAPTER II

minimum of 2 to a maximum of 8. The assigned number of clusters were then selected at equal probability by systematic sampling with a random start from a list of clusters (ward/sub-ward) arranged by given natural number to the ward within each municipality. Weights were applied to arrive at national estimate of indicators for municipalities.

5. Coverage of the Sample

Though 4000 households were selected for this survey, actual number of households enumerated successfully were 3980. 20 households were either empty at the time of survey or did not respond. This yielded an overall response rate of 99.5 percent.

6. Field Work & Training

Core staffs (statistical officers) were trained at the centre. They were sent to the concerned district statistical offices to train field workers (enumerators) at the district level and supervise field work. The field workers (enumerators) were the permanent staffs of the district offices and central office. The field work for the survey was conducted from 28th May 1996 to 20th June 1996.

7. Limitations of the Survey

Since the major objective of the survey was to provide up-to-date information on various Demographic and Socio-Economic characteristics of the urban population rather than the estimates of the total number, this survey was accordingly designed to provide such characteristics in a more precise way. Of course, estimates of the total urban population as well as estimates for each of the 36 municipalities would also have been interesting, but the lack of such estimates has been a limitation of the survey.

CHAPTER II

Analysis of Urban Population and Households

- Bishnu Dass Singh Dangol

1.1 Introduction

Age-sex data is the basic information in the field of demographic analysis. Moreover its importance has been realized to a greater extent in a country where vital registration system is not functioning properly. It has several implications for development planning. Ageing of population, dependency, health service requirement, schooling, labour force supply and many other basic information necessary for planning purposes can be derived from the age-sex distribution of population. Likewise, analysis of retirement and voting practices can not be done without considering information on "age".

1.2 Single age-sex distribution

Age-sex composition and structure of population is a function of fertility, mortality and migration. Migration can have greater effect on population structure particularly in the urban areas, where age-sex selective migration is prevalent. Besides the effects of the phenomena mentioned above, data on age-sex collected by censuses and surveys often contain errors because some people do not know their true ages and other do not report their ages correctly. Extent of error due to these reasons are noted substantially in developing countries.

Nepalese population is continually characterized by population heaping at ages which are multiple of two and five in all censuses and surveys in the past. This survey result shows slightly different pattern of age mis-reporting at the early ages but similar pattern of misreporting, at the later ages in the urban areas. Single age data (Table 1) show heaping of population at ages 1,3,5,7,9 then after multiple of two and five. Figures 1, 2 and 3 (see attachment) clearly demonstrate such heaping. Figure 1 presents two curves by single age and sex, placed side by side for comparison. Figure 2 and 3 present separately the extent of male and female population in the form of bar diagram. It is to be noted from the figures 1, 2 and 3 that age data at the early ages are more distorted for males than for females.

explained by declining fertility alone as the affect is not found at ages following "0" Hence it is either due to under reporting population at age "0" or shifting population from "0" to "1" or both

Sex ratio at age 0, which is male-population divided by female population, is about 0.90. Among births males generally outnumber females and the chance of survivorship in the context of Nepal is favourable to males than to females. This reveals that the sex ratio at age "0" should be greater than 1. But the survey finding is contractory to the expectation. Hence it can be articulated that less males than females have been counted at age "0"

1.3 Five years age -sex distribution

Single age population are grouped together into five year age groups. This process irons out the data distortion due to mis-statement of age at the preferred ages. Grouping of ages however does not totally remove the effect of age-heaping, particularly caused by heaping at ages ending "0" and "5".

Distribution of population in five year age groups is shown for males and females in table 2. The table 2 shows that proportion of population of the age group (0-4) is less than that of the subsequent age group (5-9), both for males and females. Figure 4 reveals clearly such hump particularly at the age (5-9) (see attachment). It may be due to under-reporting of children particularly the new-born as well as misplacement of persons into the next age group (5-9). For other age groups the proportion decreases with age following more or less expected pattern. It does not mean that there is no age shift beyond 10. The degree of age - shifting among the five years age groups after age 10 is relatively less as compared to the previous age groups. Furthermore, it is seen clearly that proportion of population diminishes substantially off the preceding trend, at the age group (40-44) for males and (30-34) for females compared to preceding age groups. The substantial decline in proportion at these age groups may be partially due to greater affect of population influx from rural area to urban at the preceding age groups.

Table 2 - Population Distribution by Five Year Age and Sex for Municipalities, 1996

Age Group	Sex of the person		Total
	Male	Female	
0 - 4	10.89	11.13	11.01
5 - 9	13.16	12.66	12.92
10 - 14	11.32	10.15	10.76
15 - 19	10.78	10.88	10.83
20 - 24	10.50	11.60	11.03
25 - 29	8.65	10.24	9.41
30 - 34	7.49	7.56	7.52
35 - 39	7.39	6.35	6.89
40 - 44	4.94	4.25	4.61
45 - 49	3.91	3.54	3.73
50 - 54	3.29	3.09	3.19
55 - 59	2.07	2.12	2.09
60 - 64	2.09	2.39	2.23
65 - 69	1.30	1.45	1.37
70 - 74	1.08	1.17	1.13
75 - 79	0.67	0.78	0.72
80 - 84	0.31	0.33	0.32
85 - 89	0.11	0.18	0.14
90 - 94	0.02	0.08	0.05
95+	0.02	0.03	0.02
Total	100.00	100.00	100.00
(N)	(10275)	(9433)	(19708)

Fig 5 (see attachment) shows population spectrum in form of population pyramid. It can be seen distinctly that how the influx of population has altered age-structure particularly at the working age groups for males and marriage-age for females. Steps of pyramid is distinct only after the age 40 for males and 25 for females, showing that the population structure has been influenced by in-migration up to the age 40 for males and 25 for females.

1.4 Indices :

Besides eye observations for examining the quality of the reported age/sex data, there are several indices developed by demographers as a quantitative tool to evaluate quality of age and sex data. Analysis of age/sex data on the basis of these indices is done assuming that structure of a population is expected to follow a pattern as defined by fertility and mortality schedule in the past without any disturbances from outside. But, in the case of urban area, some of these

indices would not be worth-while for evaluating the quality of age/sex data as there are considerable size of age-sex selective migration to the urban areas as a disturbance from outside to the population.

1.4.1 Age ratio ²:

Age ratio for five year age groups is presented in the table 3 and graphically in the figure 6 (see attachment). Age ratio is one of the indicator which is theoretically used for detecting age misreporting in a population where fertility has not fluctuated largely and migration is not significant. The past trend of fertility in the urban areas shows that fertility though is declining over the years, has not been noticed fluctuated in the past, but influx of migration into the urban areas has been noticed significant. Hence the influx of migration could disturb the age/sex composition particularly at the working age groups because of its age-selective nature, but not on the other ages. If it is so, it could affect age ratio at the adjoining of the age groups only where the influx of migration is prevalent. Otherwise age ratios are expected to be rather close to a value of one (or 100 in percent) except for those age groups as mentioned.

Table 3 : Population by Age and Sex and United Nations Age-Sex Accuracy Index

Age	Age Ratio		Sex ratio (males per 100 females)
	Male	Female	
0 - 4			106.7
5 - 9	118.5	119.1	113.2
10 - 14	94.6	86.1	121.7
15 - 19	98.8	100.1	108.0
20 - 24	108.1	109.8	98.6
25 - 29	96.2	106.9	92.0
30 - 34	93.3	91.1	107.9
35 - 39	119.0	107.5	126.7
40 - 44	87.3	86.0	126.4
45 - 49	95.1	96.5	120.4
50 - 54	109.9	109.0	116.2
55 - 59	77.0	77.5	106.5
60 - 64	124.3	133.5	95.6
65 - 69	81.6	81.8	97.1

² Age ratios are calculated by dividing the population of a specific age group by the average population of the two adjacent age groups

Age ratio data for males as well as females shows that very few ratios are close to one (or 100). The rest are highly deviated from 1 (or 100), with a deficit in some ratios and an excess in others. Hence the deviation of the age ratios from the expected pattern is largely due to age heaping and partly may be due to some other factors like migration. However if the affect of migration is expected only at the working age groups for males and marriage age group for females, the age ratio should not deviate from 1 (100) for other age groups which do not have adjoining age groups affected by migration. No age ratio equals to one (100) is noticed in the table 3. This shows that the population is highly distorted in the urban areas.

1.4.2 Sex Ratio

Sex ratio of a population is a very simple demographic tool, which is used to evaluate age-sex composition of a population. Among the births, males are more than females, which results in sex ratio greater than 1 at birth. Then after, sex composition of a population is defined by sexual differences in mortality. The analysis so far done in the country shows that in totality there is sexual disparity of mortality with higher probability of surviving for males than for females. Hence sex ratio should remain continually more than 1 for all age groups in our country. The situation in the urban area in this mater may be different because in the context of changing pattern of social and economic indicators over the years the general disparity of mortality may not be same magnitude as found in rural areas. Beside these phenomena, another factor is the sex selective migration which can also disturb sex balance in urban areas.

The sex ratio data from table 3 shows that although the sex ratio for age "0" is less than 1 (see above), the ratio for the age group (0-4) is more than 1 (see figure 7, attachment). The sex ratio is continually higher than 1 for all age groups except for age groups (20-24), (25-29), (60-60) (65-69) and 75+. The reasons for sex ratio less than 1 for (20-24) and (25-29) is not evident, it may be due to male-emigrants i.e. emigration of young adult males to other countries in search of better jobs and/or better earning opportunities. For the age 60 and above, it may be due to the recent changing pattern of mortality with higher risk of death to males than to females in the urban areas. The extremely high sex ratios for the age groups 35 to 49 may be attributed to excess male-migration over female migration.

1.4.3 Myers Index

Table 4 : Myers Index of Digit Preference by Sex³

Digits	Male	Female
0	+ 6.1	+ 7.3
1	- 3.6	- 3.6
2	+ 2.0	+ 1.9
3	- 2.4	- 3.0
4	- 1.9	- 2.5
5	+ 5.5	+ 5.8
6	- 1.2	- 1.5
7	- 2.3	- 2.0
8	+ 1.0	+ 1.4
9	- 3.9	- 3.8
Blendex Index (B.I.) ⁴ = 29.2		32.8

Table 4 presents Myers Indices by sex. These indices are used to examine digit preference among males and females in reporting their ages. The table indicates that there is a higher tendency among males and females to state their ages as ending in digits 0 and 5. Similarly there is also a tendency among males and females not to state their ages ending in digits 1,3,7,9. Pattern of age heaping is almost alike among the males and females. Reader may also refer figure 8 (see attachment). The Myers Blended Index (shown in the table 4) for males and females are 29.2 and 32.8 respectively. The values reveal that although there exists digital preference in reporting ages, the preference is not so high as it is closer to "0" than to "90".

1.4.4 Age/sex Accuracy Index⁵:

Quality of reported age/sex data has been discussed already by deriving the age and sex ratios separately. The UN age/sex accuracy index is the joint accuracy index to summarize the values of the age and sex ratios.

³ + indicates liking of digit

- indicates disliking of digit

⁴ B.I. is "0" for no heaping and "90" for extreme heaping

⁵ Index rating

Accurate if Index is less than 20.

Inaccurate if Index is less than 20-40.

Highly inaccurate if Index is more than 40.

The UN age/sex accuracy index is 49.6. This index value is higher than 40 which shows that the reported age/sex is highly inaccurate.

But in reality the degree of inaccuracy in reported age/sex data particularly in the urban area may not be of the same magnitude as indicated by the Index because of the effect of age/sex selective influx of population in the urban area. This questions the validity of the indices. Hence, potent effect of migration is also needed to consider in examining accuracy of reported age/sex data with this index.

1.4.5 Whipple's Index⁶

Table 5 : Whipple's Index, 1996

	Index
Male	180
Female	180
Total	180

Whipple's Indices calculated for males, females and both sexes are given in the table 5. The values of Index shows that age reporting is very rough. The indices further shows no distinct difference in tendency of reporting ages for males and females.

Table 6 : Index of ageing and median age of males and females, urban area, 1996

	Median Age		Index of ageing	
	1996	1991	1996	1991
Male	21.5	20.6	15.9	12.6
Female	21.8	20.7	18.9	14.2

⁶	Data Quality	Whipple Index
1.	Highly accurate	< 105
2.	Fairly accurate	105 - 109.9
3.	Approximate	110 - 124.9
4.	Rough	125 - 174.9
5.	Very rough	175 and above

1.4.6 Index of ageing and median age

In the context of declining fertility over the years in the urban areas, number of births should go on declining. It is also known that total mortality including infant and child mortality, has declined dramatically in the urban area and is still declining further. A decline in mortality gains better survivorship at the older ages. In order to examine the combined effect of change in fertility and mortality in the total population, two indices (a) median age (b) index of ageing have been derived and presented in the table 6. Index of ageing which is the ratio of population age 60+ to population age 0-14, shows that there is a gain in the index by more than 3 points during the period 1991 to 1996. Furthermore, it indicates female are more aged than males in the population. Similarly the median age has increased by 1 point during the same period. This indicates that urban population is growing older in its age composition.

1.5 Dependency ratio

Table 7 : Young and Old Dependency ratio

Dependency ratios	1996	1991
Young	58.5	64.6
Old	10.1	8.6

Change in dependency ratios also reflect a change in fertility and mortality over the years. To examine the changes in the case of urban areas, the dependency ratios young and old dependency ratios are computed for 1996 and 1991. This indices are presented in table 7 The young dependency ratio declined from 64.6 in 1991 to 58.5 in 1996 i.e. by about 6 points. On the other hand, old dependency ratio increased from 8.6 in 1991 to 10.1 in 1996 This also confirms that urban population is growing older day by day

1.6 Household

Household is the lowest unit of enumeration from where basic information are sought. Size of a household, which also resembles family size in some cases, has its own importance in the social structure. Number of households covered by the survey is 3980, counting total population of 19708, which places the household size at 5.0 in 1996. This household size is considerably small as compared to the census results of 1991 and 1981 (for which household

size was 5.4 and 6.2 respectively). This shows that household size is decreasing gradually over the years, may be due to increasing tendency of the urban people towards nuclear family.

1.7 Head-ship rates

The head-ship rates by age and sex is presented in the table 8. Out of total households 12.6 percent (503 households) are headed by females as against 87.4 percent (3477 households) headed by males. This reveals the sex ratio of about 7 i.e. 7 males per each female among the heads.

Age-sex distribution of household heads shows that males are mostly from the age group (25-49). In the case of females, the data is erratic and no consistent pattern is noted. However more than 50 percent of female heads are from the age group 50 and above.

Table 8 : Age sex distribution of household heads

Age Group	Male	Female	Total
< 15	0.16	0.58	0.21
15 - 19	1.42	2.23	1.53
20 - 24	6.37	3.94	6.07
25 - 29	10.27	8.47	10.04
30 - 34	13.25	5.25	12.25
35 - 39	16.25	10.76	15.56
40 - 44	12.39	10.48	12.15
45 - 49	10.04	6.13	9.55
50 - 54	8.92	15.08	9.70
55 - 59	5.51	9.30	5.99
60 - 64	5.89	8.69	6.24
65 and +	9.52	19.09	10.73
Total %	100.00	100.00	100.00
N	(3477)	(503)	(3980)

1.8 Distribution of households by household size

The table 9 presents distribution of households by population size. The number of households with 1 person and more than 7 persons are very less and ranges from 3.2 % to 7.8 %. The household size concentrates at 2 persons to 6 persons. The mode of the household size stands at 4 persons household.

Table 9 : Distribution of Households by Household size urban population survey, 1996

No of persons	No of households	Percent	Cum. Percent
1 Person HH	197	4.94	4.94
2 Persons HH	416	10.47	15.41
3 Persons HH	518	13.02	28.43
4 Persons HH	773	19.41	47.84
5 Persons HH	718	18.02	65.87
6 Persons HH	518	13.02	78.88
7 Persons HH	313	7.85	86.73
8 Persons HH	189	4.75	91.48
9 Persons HH	126	3.17	94.65
10+ Person HH	213	5.35	100.00
Total	3980	100.00	100.00

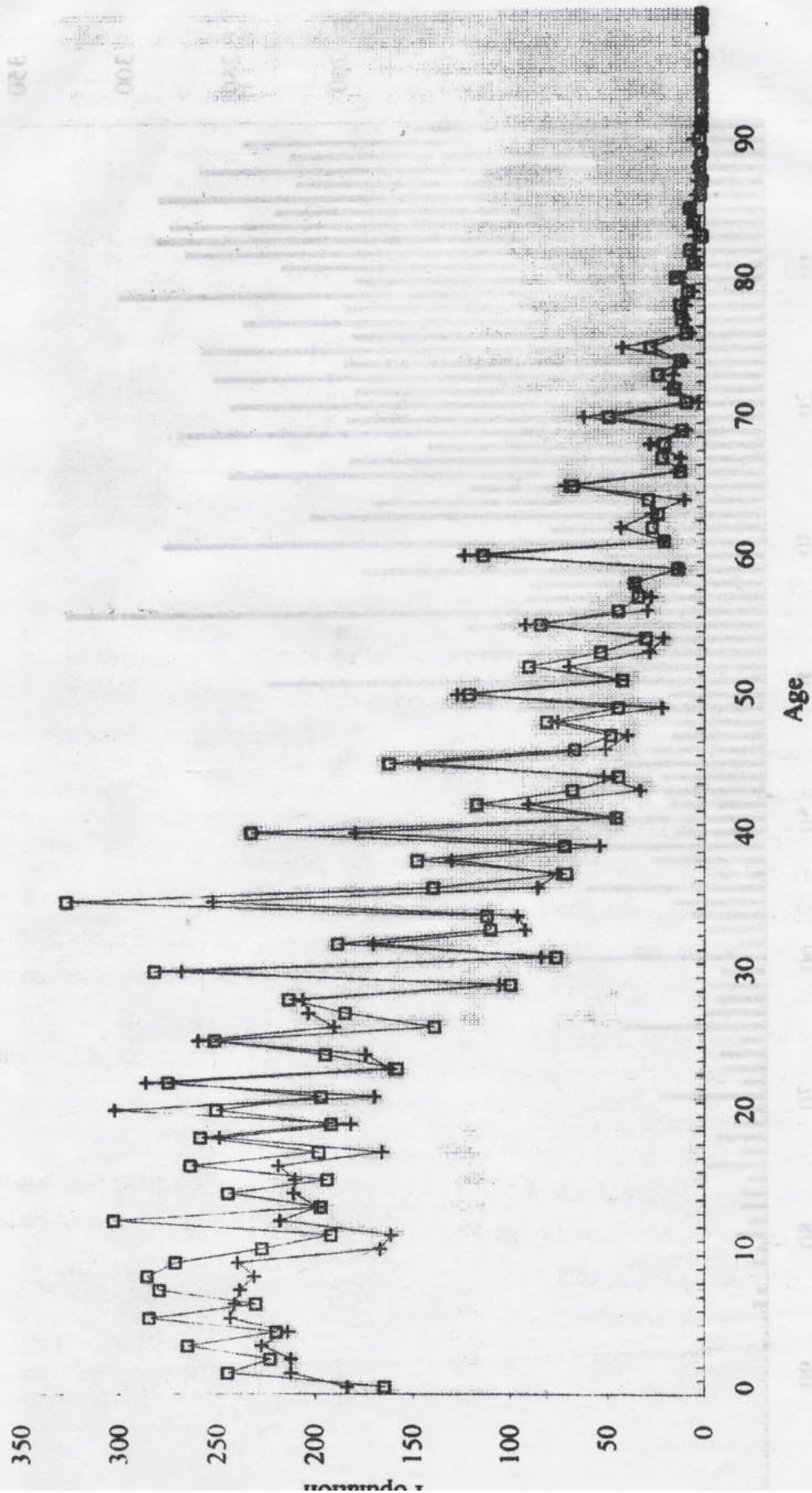
1.9 Conclusion :

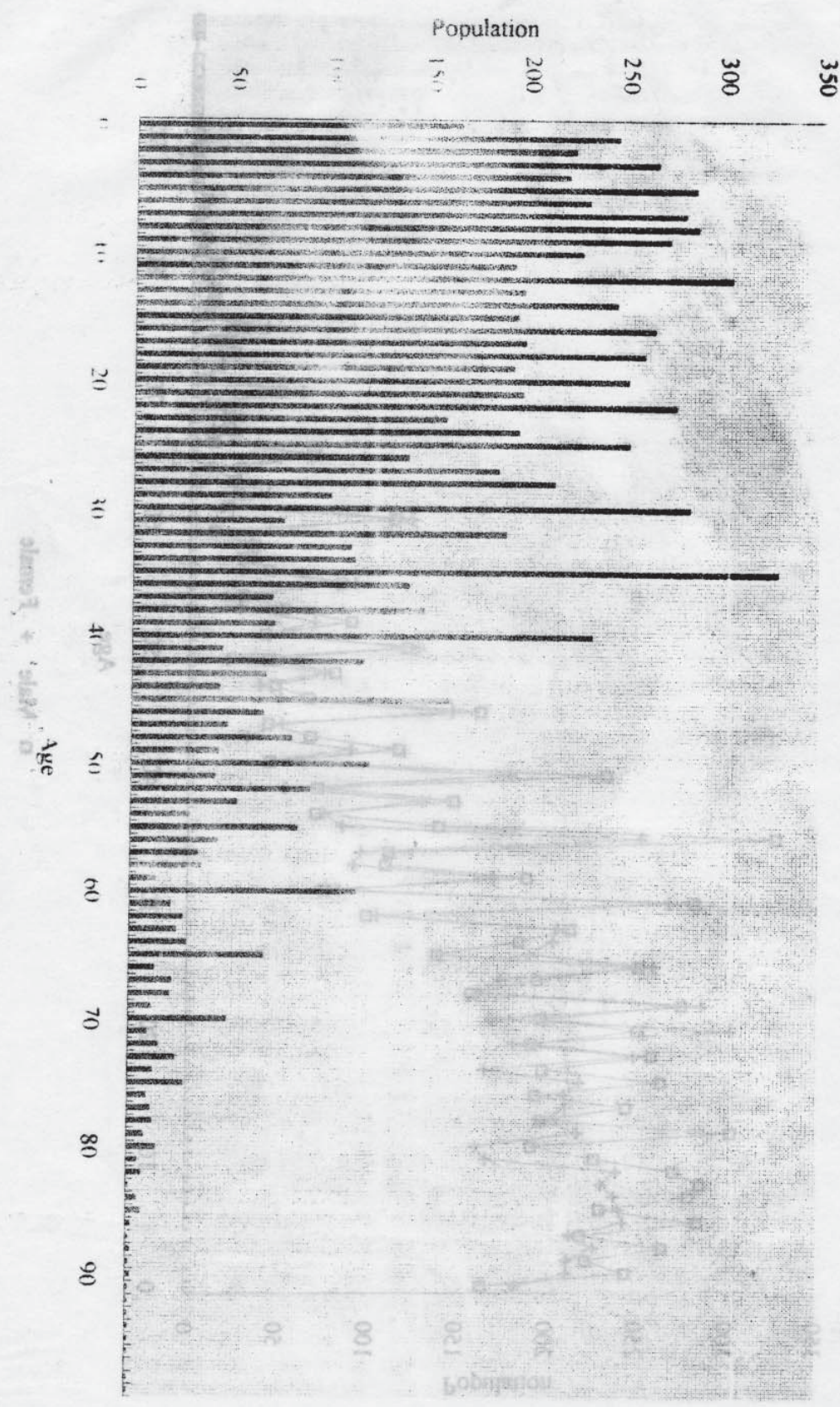
Age/sex data is a basic tool in demographic and planning exercises. It will be worthwhile to examine quality of reported data before using them for the purposes. Validity of the results from the data is largely governed by its quality. Reported age/sex data is found highly distorted because of age heaping at the preferred digits. The degree of distortion may not be to that extent as the results shows because the prevalence of age/sex selective migration might have altered age/sex regularity as shaped by the past trend of fertility and mortality schedules. However from the point of view of its crucial role in demographic as well as planning exercises, attention should be paid to improve quality of data including its coverage. Median age and index of ageing reflect that the population is ageing as the mortality situation has improved over the years. On top of that, the dependency ratios indicate fewer children compared to adult age population. It may be largely due to declining fertility in the past and also an illusion due to influx of adult population.

Average household size is 5.0. 12.6 percent of the total households is headed by females and they are mostly from the age 50 years and above. Whereas household male heads are mostly from age (25-49) years.

Figure 1

Population by Sex





Male Population

Figure 2

almost + class Age

Figure 3

Female Population

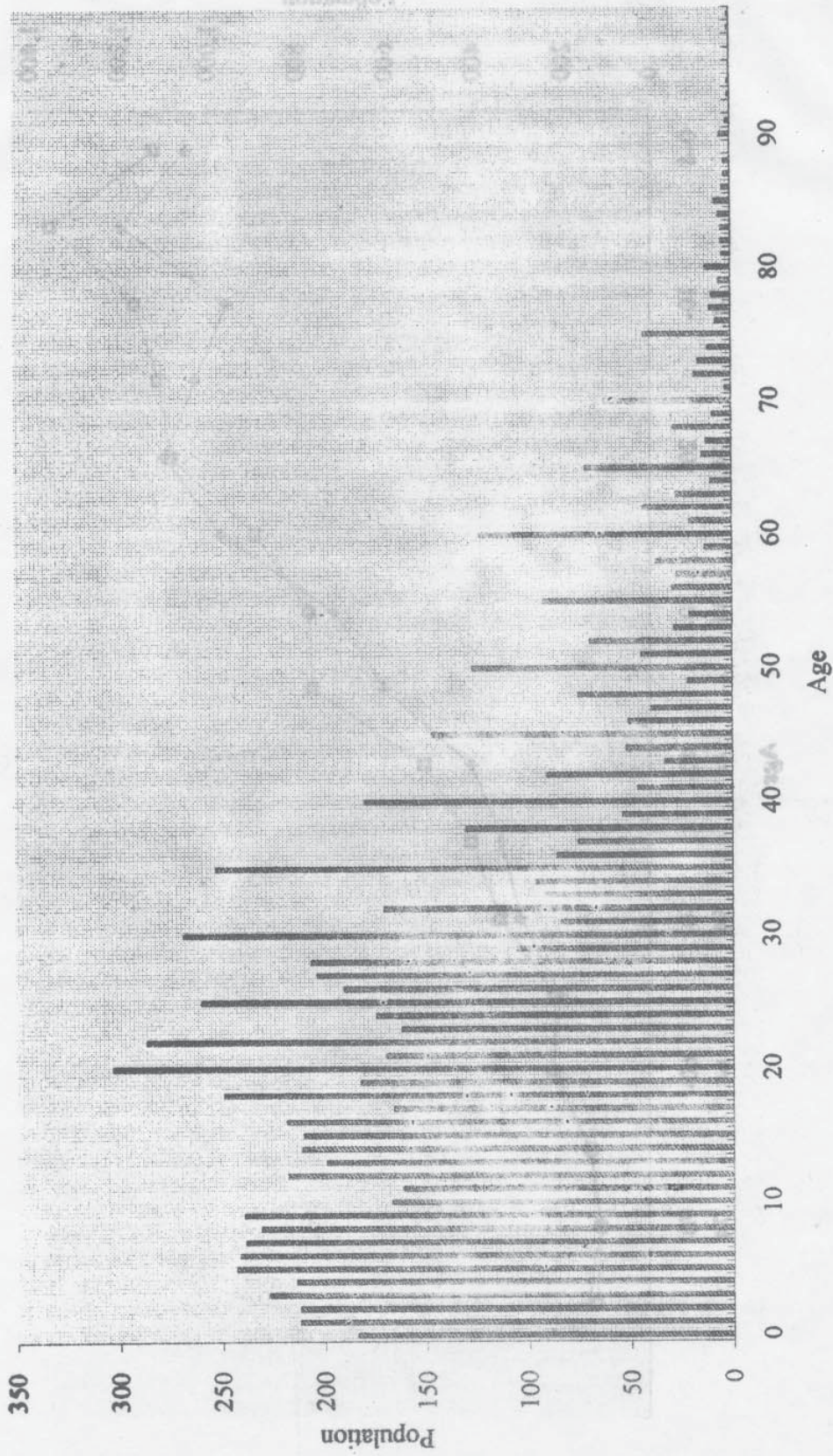


Figure 4
Population by Age and Sex

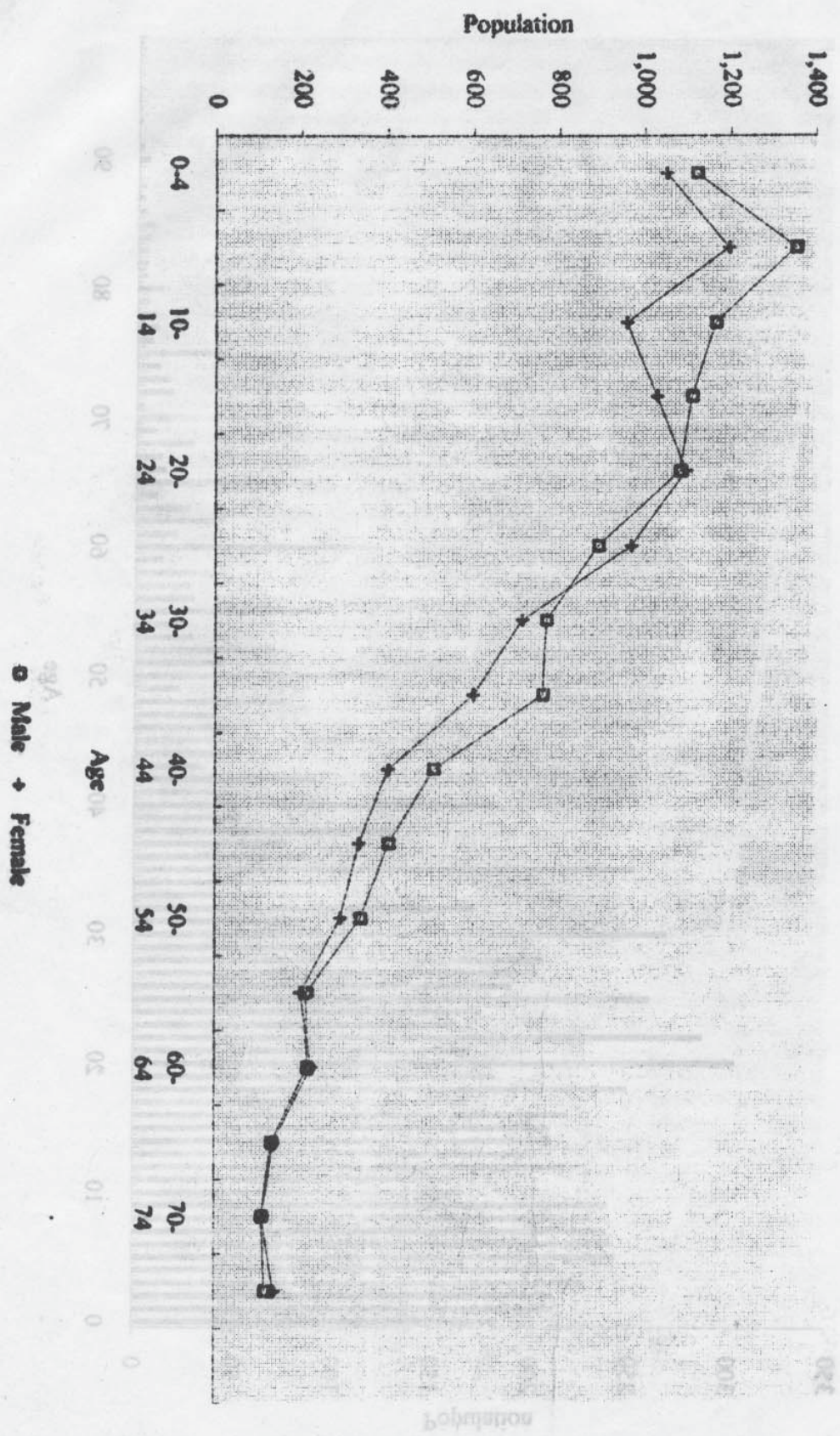


Figure 5

Population by Age and Sex

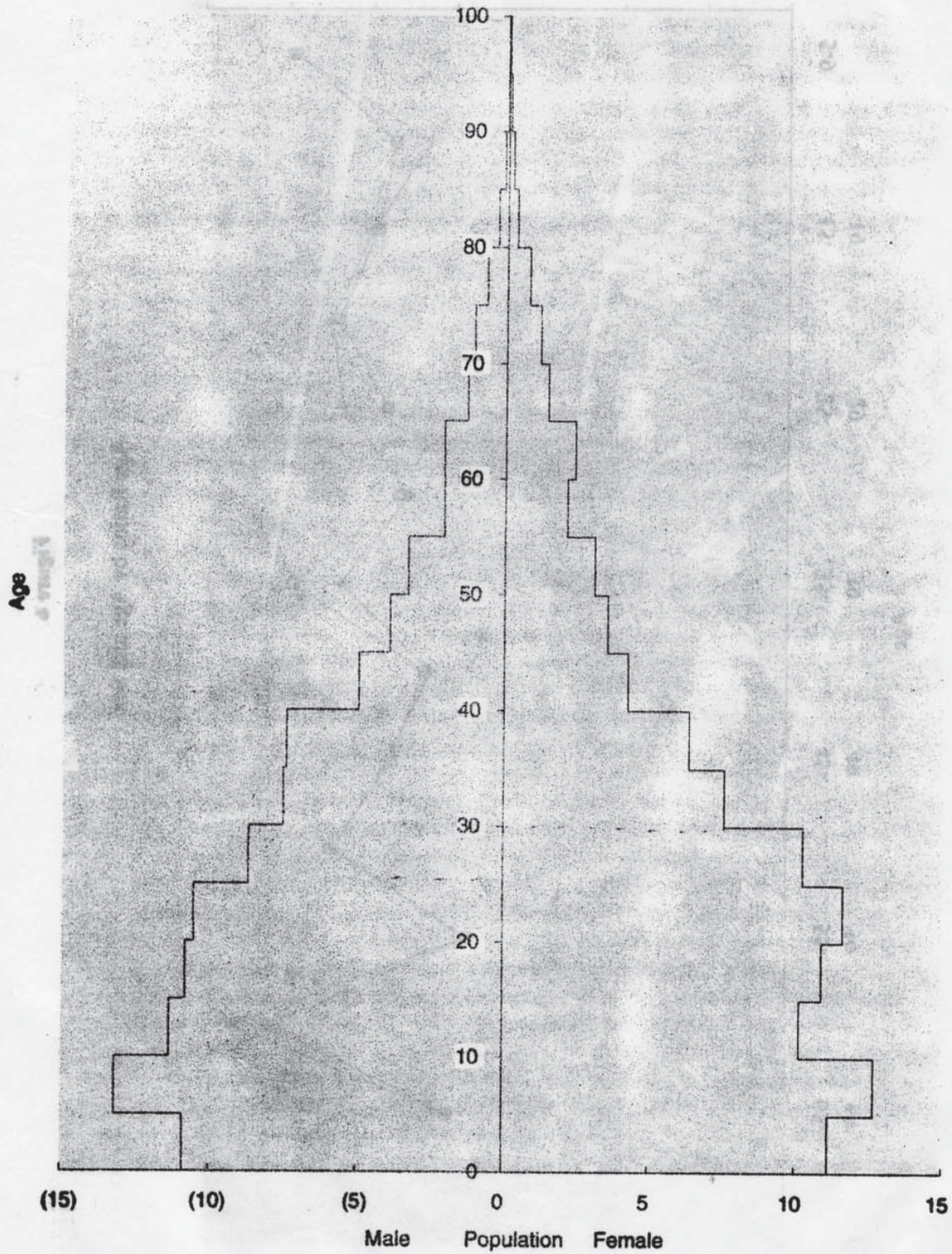
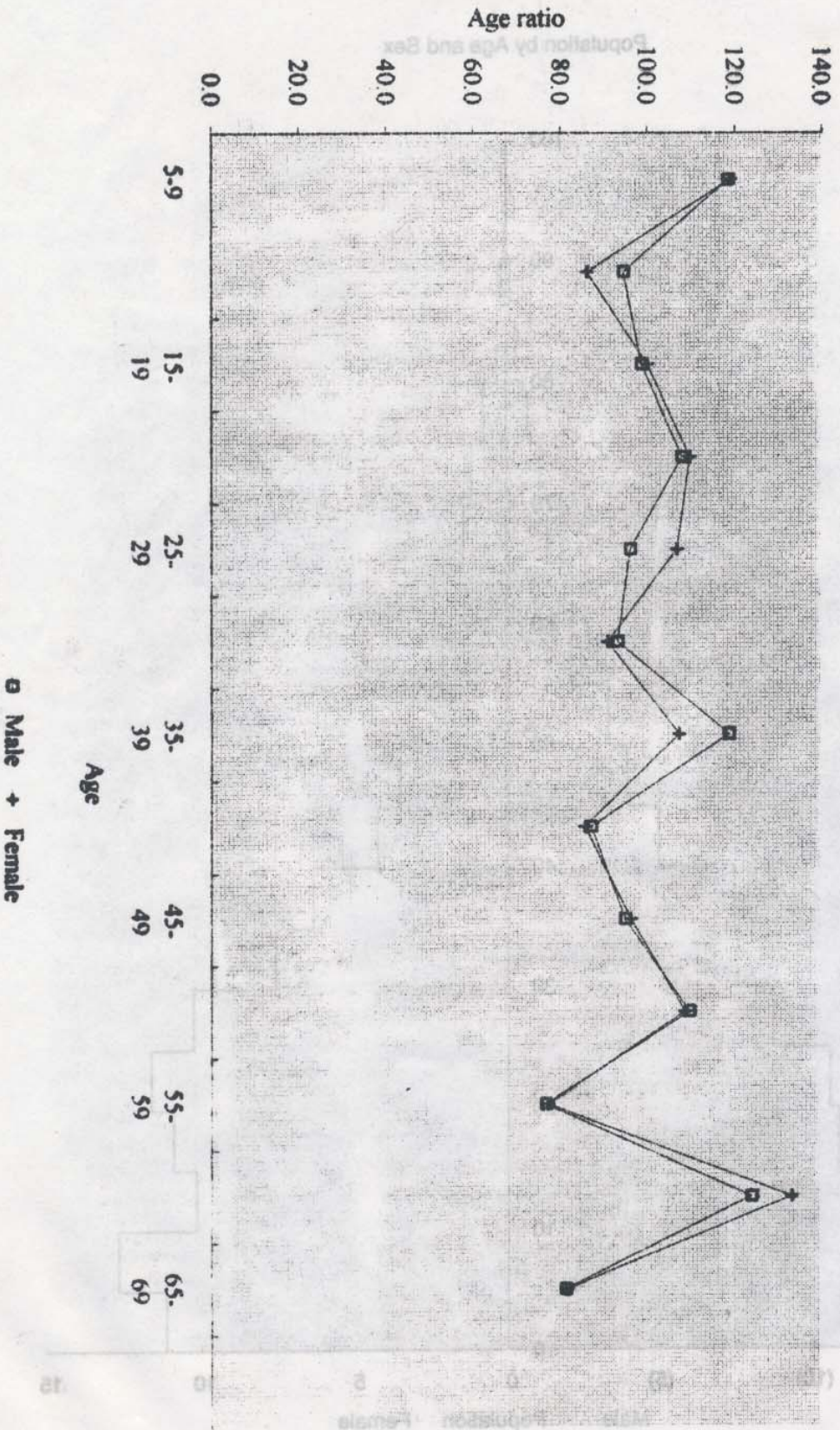


Figure 6

Age Ratios by Age and Sex

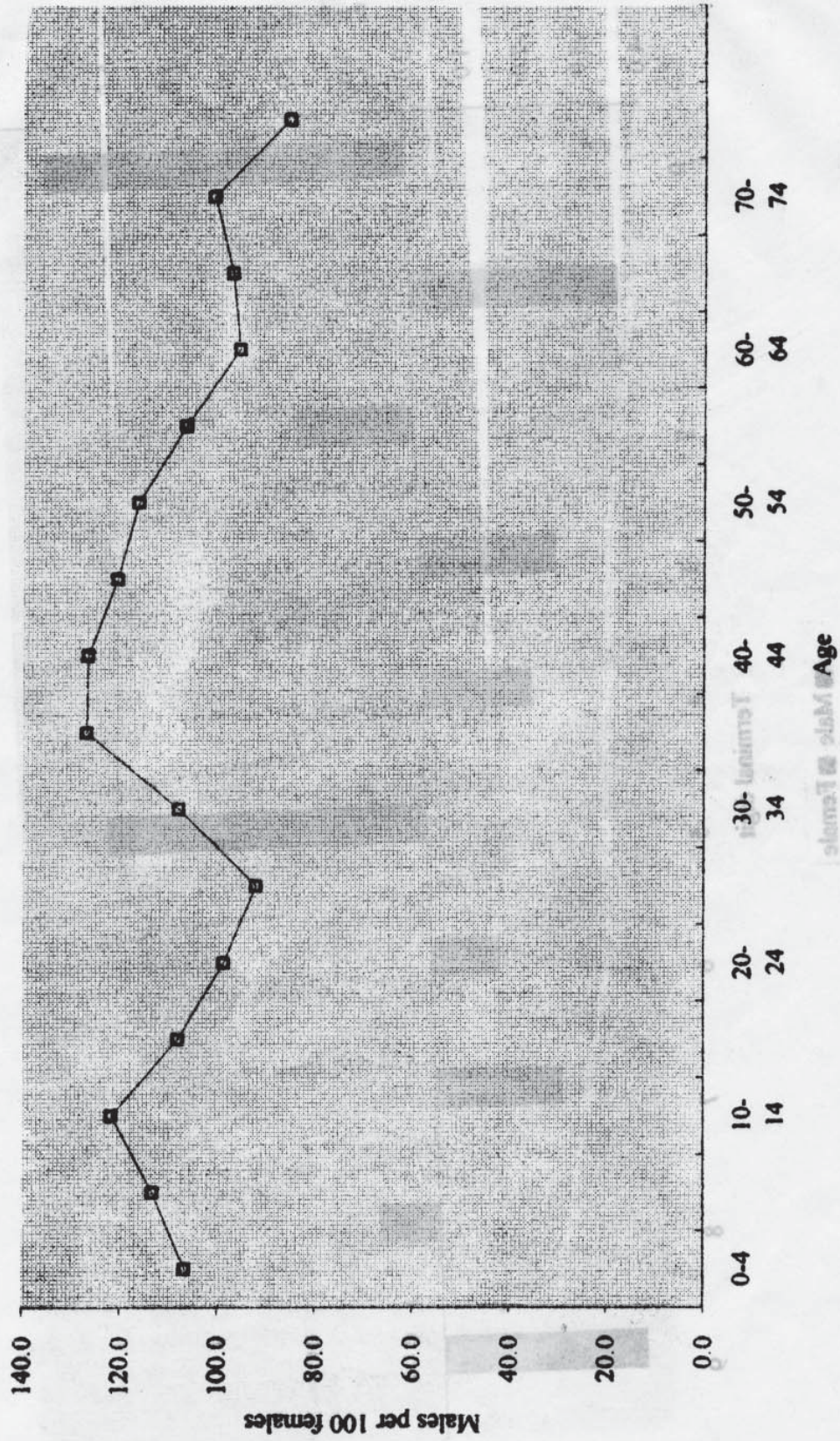


Age ratio

□ Male + Female

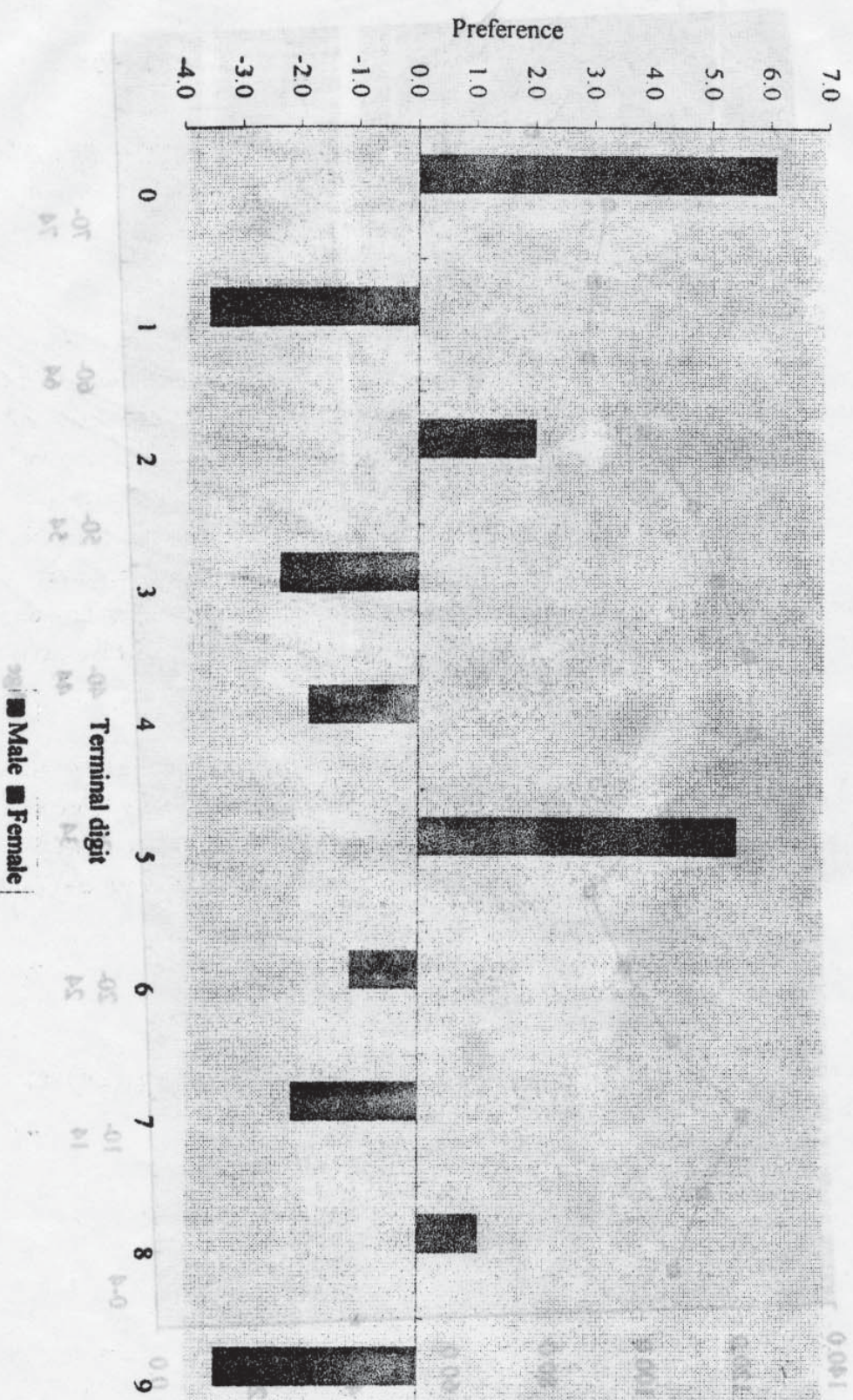
Figure 7

Sex Ratios by Age



Figure

Myers Preference by Digit



CHAPTER III

Nuptiality, Fertility and Mortality Status in Urban Nepal

- Radha Krishna Gharty Chhetry

Age Group	Urban Survey 1996			Urban Survey 1991		
	Single	Married	Widow	Single	Married	Widow
Male	41.91	52.61	1.56	40.67	6.30	0.30
Female	41.91	52.61	1.56	40.67	6.30	0.30
60+	1.93	47.79	47.22	3.14	46.21	47.82
55-59	2.11	70.20	24.90	3.81	68.28	28.30
50-54	2.09	77.66	17.93	1.22	72.46	24.33
45-49	1.97	82.17	11.14	1.37	92.61	6.02
40-44	2.17	70.04	6.73	1.13	60.21	1.00
35-39	2.22	62.96	3.02	0.98	52.92	0.30
30-34	3.76	63.47	1.39	0.81	63.87	0.44
25-29	7.97	69.93	0.67	0.61	89.11	0.33
20-24	24.63	73.29	0.29	0.42	80.08	0.09
15-19	66.37	31.82	0.11	0.21	74.22	0.00
10-14	94.86	4.60	0.00	0.00	94.86	0.00

1. Introduction

In Nepal the major sources of data on nuptiality, fertility and mortality are population censuses and intercensal demographic sample surveys. Vital registration do exist but due to their partial coverage and under reporting of the events it has become unable to fulfill the data needs on vital statistics. This has led to the need of frequent intercensal demographic surveys for producing some timely and reliable estimates of demographic parameters (Chhetry, 1995). The Urban (Municipality) Population Survey conducted in 1996 by the Central Bureau of Statistics is a step toward fulfilling this gap and its scope is limited to only the urban areas of the country. This chapter is mainly focused on nuptiality, fertility and mortality status in the urban area of Nepal during the period 1996 and wherever possible some comparisons and trends have been cited.

Fertility change is one of the possible response to a mortality change and marital status is one of the conditioning factors among many which influences their relationship (Preston, 1975). So, in order to look into the fertility behavior of women in the urban area it would be quiet interesting to know the nuptiality status of the population residing in the urban area as well.

2. Nuptiality

The age, sex and the marital status distribution of the urban population during the period 1991 and 1996 is highlighted in Table 1 shown below.

Note - The small figures on marital status not stated in 1996 has been projected.

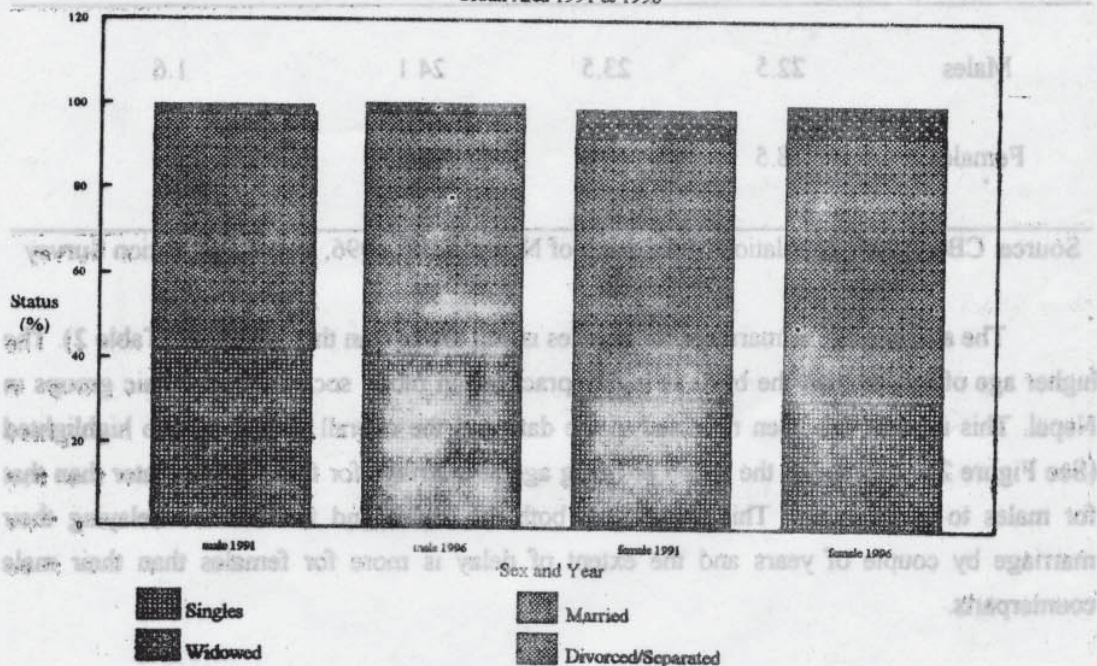
Table 1 : Marital Status Distribution by Age and Sex for Municipalities of Nepal, 1991 and 1996

Age Group	Population Census 1991				Urban Survey 1996			
	Single	Married	Widower/ Widow	Div/Sep	Single	Married	Widower /Widow	Div/Sep
Male	41.91	55.61	1.56	0.30	40.67	56.92	2.2	0.30
10-14	96.85	2.90	0.05	0.08	94.85	1.21	0.00	0.00
15-19	87.89	11.00	0.07	0.13	92.88	6.22	0.00	0.00
20-24	57.13	41.49	0.14	0.26	60.90	37.24	0.29	0.25
25-29	24.25	74.31	0.32	0.35	27.29	71.58	0.28	0.36
30-34	8.20	90.29	0.47	0.36	6.04	92.18	0.60	0.24
35-39	3.53	94.83	0.71	0.40	4.09	93.77	0.96	0.58
40-44	2.46	95.44	1.23	0.45	1.45	95.78	1.57	0.42
45-49	2.09	94.90	2.07	0.45	1.09	94.16	4.09	0.39
50-54	2.56	92.53	3.79	0.59	1.57	90.31	5.47	1.28
55-59	2.46	90.89	5.68	0.49	2.51	86.90	9.50	0.53
60+	2.75	81.98	14.11	0.43	0.40	84.72	14.06	0.35
Female	30.97	61.33	6.15	0.65	30.33	62.29	6.94	0.44
10-14	94.86	4.60	0.05	0.08	91.98	2.16	0.00	0.00
15-19	66.37	31.82	0.11	0.21	74.25	24.37	0.00	0.18
20-24	24.63	73.29	0.29	0.45	30.08	66.79	0.09	0.28
25-29	7.97	89.93	0.67	0.61	9.05	89.11	0.53	0.34
30-34	3.76	93.47	1.39	0.81	3.63	93.87	0.44	1.01
35-39	2.52	92.96	3.05	0.98	3.07	93.43	2.95	0.32
40-44	2.17	90.04	6.33	1.13	1.09	90.21	7.18	1.40
45-49	1.97	85.17	11.14	1.37	0.61	92.61	6.02	0.00
50-54	2.09	77.66	17.93	1.55	1.36	72.46	24.33	0.34
55-59	2.11	70.59	24.90	1.39	3.81	68.58	26.30	0.37
60+	1.93	47.79	47.25	1.20	3.14	46.21	47.85	1.00

Note: - The small figures on marital status not stated in 1996 has been prorated.

The overall trend in marital status from the above table for both males and females have been presented in Figure 1. No major changes in the marital status composition is seen for both the sexes during the period. As the proportion of divorced/separated is very small it is not very explicit in the figure and should be understood from the table. However, looking at the figures from the table by age and sex it is observed that the proportion singles in the age group 15 to 39 have increased over the years for both the males and females. This could be due to the increasing age at marriage for both males and females. The other reason could also be due to the change in urban lifestyle of the people having more opportunity and choices for entering into the economically productive labor market by postponing their marriage (Chhetry, 1993).

Figure 1
 Marital Status Distribution by Sex and Year
 Urban Area 1991 & 1996



In most societies an inverse relationship exists between age at first marriage and fertility of women (Henry et. al., 1979). Studies have also shown that the reduction in fertility is due to the combination of women's higher level of education as well as the attitude and practice towards late marriage (Cochrane, 1979). So, it would be interesting to see the age at first marriage in the urban area. A table depicting the singulate mean age at marriage by sex over the years from 1991 to 1996 shows that female age at marriage have gone up by 2 years.

Whereas, the age at marriage for males which was comparatively higher than females has also increased by one and half years. Taking into account of all these facts and figures it is evident that the rising age at marriage may not only reveal an immediate reduction in fertility. Various socio-economic and cultural factors play an important role in tuning up the female fertility. However, in a country like Nepal with low CPR (NFHS, 1996), it is a good indication and a key variable in the reduction of female fertility over the years in the long run in the future.

Table 2 : Singulate Mean Age at Marriage by Sex for Urban Municipality in Nepal, 1981-1996

Sex	Singulate Mean Age at Marriage			Difference 1981-1996
	1981	1991	1996	
Males	22.5	23.5	24.1	1.6
Females	18.5	19.6	20.4	1.9

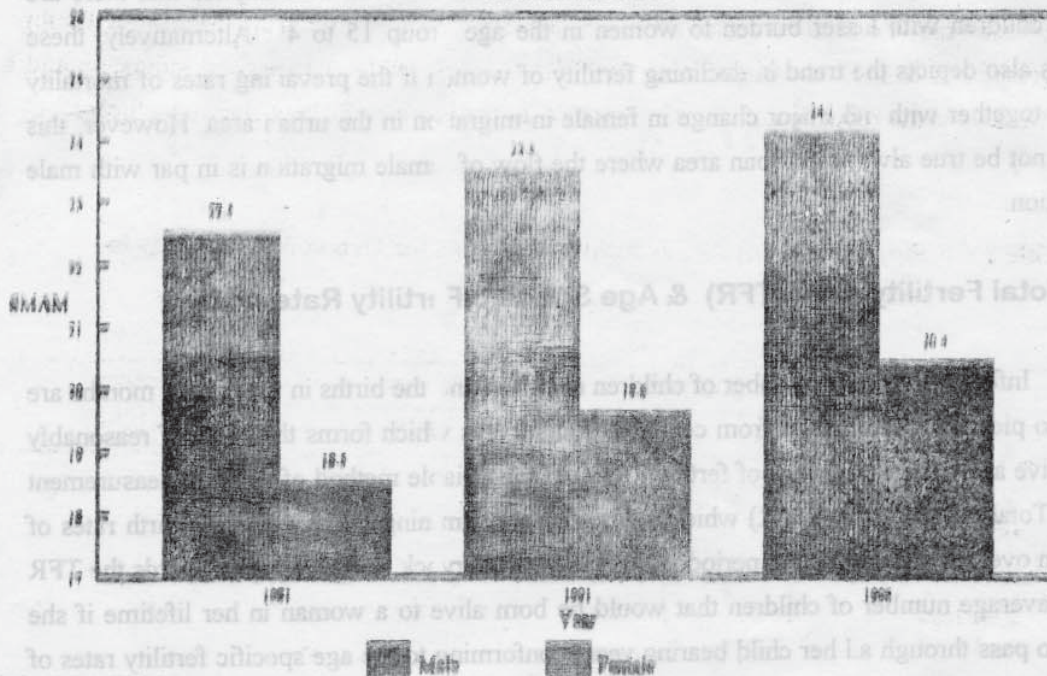
Source: CBS, 1995. Population Monograph of Nepal; CBS, 1996, Urban Population Survey

The average age at marriage for females is still lower than that for males (Table 2). The higher age of groom than the bride is highly practiced in most societies and ethnic groups in Nepal. This is what has been reflected in the data and the overall pattern is also highlighted (See Figure 2). Moreover, the speed of rising age at marriage for females is greater than that for males to some extent. This shows that both the males and females are delaying their marriage by couple of years and the extent of delay is more for females than their male counterparts.

Figure 2.

Singulate Mean Age at Marriage

Urban Area, 1991-1996



3. Fertility Estimates

In order to assess the reproductive behavior of women various fertility indicators could be looked into. One of such indicator giving a direct estimate of fertility is the **Child Woman Ratio (CWR)**. It is the ratio of children in the age group 0-4 years over women exposed to the risk of child bearing in the age group 15-49 (Shryoek, 1970). In a society where the incidence of mortality is low and the migration of population does not account for a substantial change, the measure obtained from CWR gives an approximation of the female fertility (Bareklay, 1970).

Table 3 : Child Woman Ratio in the Urban Municipality Area, Nepal 1981 - 1996

Fertility Indicator	Year		
	1981	1991	1996
CWR	0.606	0.478	0.421

According to the indices shown, the CWR has substantially declined over the period from 1981 to 1996 in Urban municipality (Table 3). Looking at these figures it is seen that the decline is continuous and has shown one third reduction in CWR. This implies that there are fewer children with lesser burden to women in the age group 15 to 49. Alternatively, these figures also depicts the trend in declining fertility of women if the prevailing rates of mortality is low together with no major change in female in-migration in the urban area. However, this might not be true always in urban area where the flow of female migration is in par with male migration.

4. Total Fertility Rate (TFR) & Age Specific Fertility Rate (ASFR)

Information on the number of children everborn and the births in the last 12 months are the two pieces of information from censuses and surveys which forms the basis of reasonably extensive and detailed analysis of fertility. One of the reliable method of fertility measurement is the Total Fertility Rate (TFR) which is obtained by summing the age specific birth rates of women over their reproductive period in a given year (Shryock, 1971). In other words the TFR is the average number of children that would be born alive to a woman in her lifetime if she were to pass through all her child bearing years conforming to the age specific fertility rates of a given year (PRB, 1980). In the absence of vital registration this measure gives an indirect measure of fertility from Population Census and Demographic Sample Surveys.

The estimates of TFR and ASFR are obtained by using different techniques and these rates show some degree of variation depending upon the assumptions in the various techniques employed. However, all the estimates of the Total Fertility Rate (TFR) for the Urban area in 1996 shows a unique figure around 3.3 and the set of Age Specific Fertility Rates (ASFR) generated also shows some similarity according to each of the techniques employed. Again, the direct estimate of fertility gives a TFR of 2.45 from all these methods.

The results from the 1991 census data showed a TFR of 3.5 for the Urban area. In a similar manner for 1996 the Arriaga method gave an estimate of TFR of 3.3. The results from the Trussel variant of PFRATIO method also produced an exact figure of 3.3 as TFR. Similarly, the Total Fertility Rate estimated using the Brass PF-RATIO method also generated an estimate of 3.3 (See Table 5).

Regarding the Crude Birth Rate (CBR), Brass P/F Ratio Method produced an adjusted CBR of 31‰. This figure is much lower than the estimated CBR of 41.6‰ for the country in 1991. With the same technique employed for the 1991 census data for the urban area produced a TFR of 4.9 and a CBR of 35 ‰. This has always opted to decide the level of fertility based on Demographic sample surveys and Fertility surveys which were more closer to actuality (Chhetry, 1995). This shows that both the rates of TFR and CBR were higher as produced by the 1991 census than the current Urban Population survey.

Table 5 : Estimates of Age specific Fertility Rates and Total Fertility Rate Based on Different Techniques for Urban Nepal, 1991 and 1996

Age Group	Age Specific Fertility Rates (ASFR)			
	Arriaga Method (1991) ^a	Arriaga Method (1996) ^b	Trussel PF Ratio Method (1996)	Brass PF Ratio Method (1996)
15-19	0.0822	0.0637	0.0676	0.0676
20-24	0.2247	0.2353	0.2363	0.2362
25-29	0.1875	0.1809	0.1790	0.1785
30-34	0.1110	0.1308	0.1303	0.1307
35-39	0.0622	0.0456	0.0453	0.0449
40-44	0.0269	0.0101	0.0101	0.0095
45-49	0.0125	0.0030	0.0031	0.0031
TFR	3.5	3.3	3.3	3.3

Note - a) Estimates obtained from Table 9, p.74 of Population Monograph of Nepal 1995

b) Estimates based on single year data for 1996 using Arriaga method.

The above estimates of ASFR and TFR were obtained using the Population Analysis Spreadsheet (PAS) software package by using the Arriaga method (ARFE-2) and the Trussel PF Ratio method (PF-Ratio). (Arriaga et al, 1992). The manually calculated ASFR and TFR generated from the Trussel refinement also gave the same estimates for 1996.

Figure 3.

URBAN AREA OF NEPAL: 1996

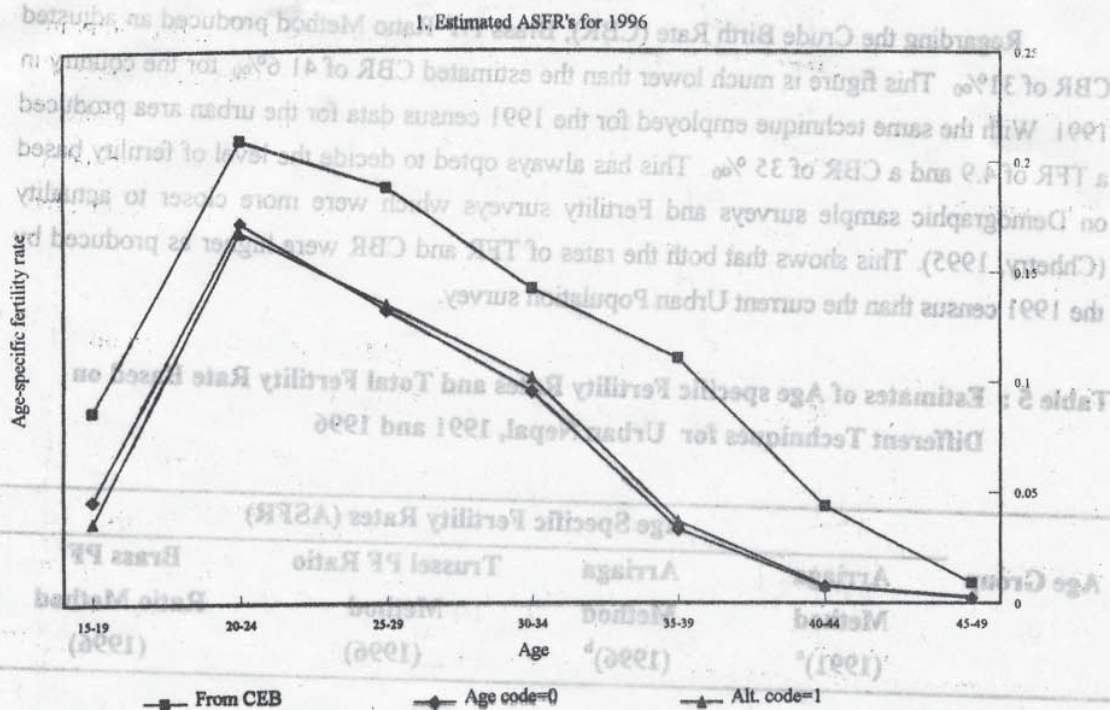


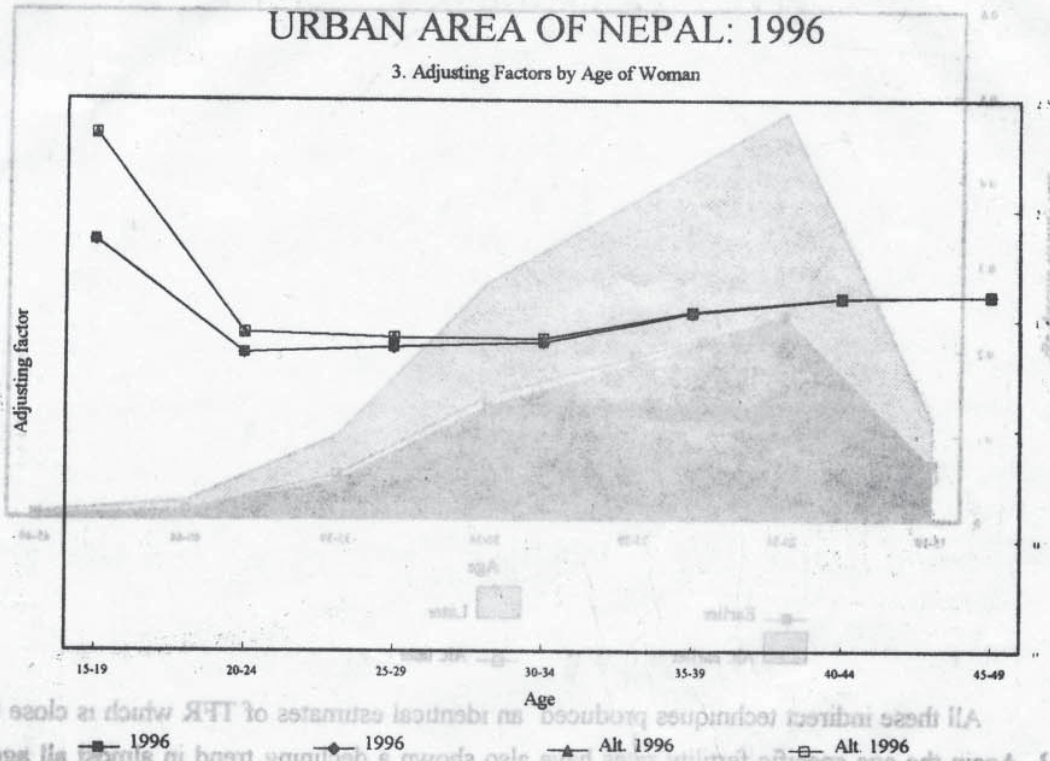
Figure 3 shows the estimated Age specific fertility rates for the Urban Area of Nepal in 1996 using the Arriaga method. In the same figure the estimated Age specific fertility rates obtained from the children everborn have also been delineated. This figure very nicely presents the estimates of Age specific fertility rates for the survey year 1996 for Urban Nepal. As exhibited in the figure the pattern of ASFR resembles to some extent to past trend (1991) of ASFR revealed in the above table. However, the age pattern of fertility is still higher in earlier and adult ages. The differences experienced in 1991 and 1996 could also be due to the difference in the coverage and methodology of data collection.

The above estimates of ASFR and TFR were obtained using the Population Analysts Spreadsheet (PAS) software package by using the Arriaga method (ARF-2) and the Trussel PF Ratio method (PF-Ratio). (Arriaga et al. 1992). The manually calculated ASFR and TFR generated from the Trussel refinement also gave the same estimates for 1996.

Figure 3

URBAN AREA OF NEPAL: 1996

Figure 4.



All these indirect techniques produce identical estimates of TFR which is close to 1.3. Again the age specific fertility rates also show a declining trend in almost all ages.

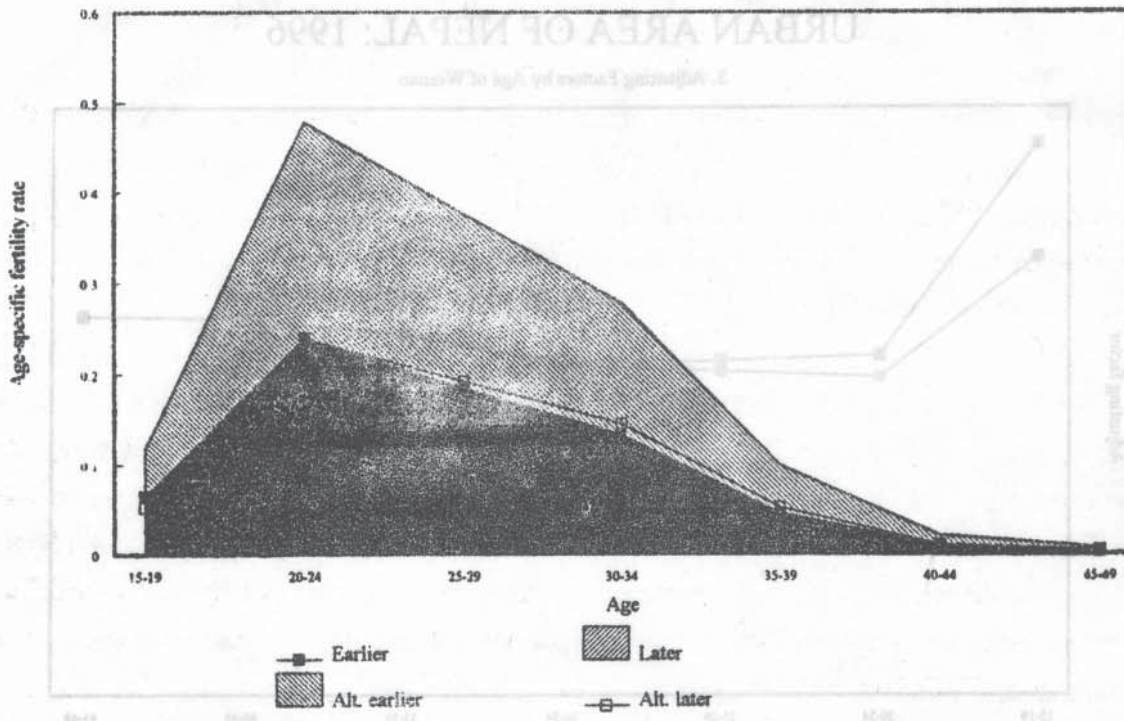
For the indirect estimation of fertility rates any estimation procedure employ adjustment factors. For all the age groups between 15-49 an adjustment factor is generated at a five year interval. In a similar manner this method also uses adjustment factors by age. The adjustment factors are clearly presented in the above Figure 4 derived using the same method. As the adjustment factors in this procedure for estimating ASFR's are based on the age group 20-29 is distinctly identified and evaluated (See Figure 4).

Another interesting graphical presentation generated from this method is the adjusted ASFR's based on the age group 25-34. These adjusted ASFR's are very nicely exhibited and almost resembles the one obtained from the adjustment factors that has been used for our estimation of urban fertility (Figure 5). Among all other options presented in the graph, the adjustment factors for our estimation are only based on 1996 shown in the legend (See Figure 4 & 5).

Figure 5.

URBAN AREA OF NEPAL: 1996

6. Adjusted ASFR's (25-34)



All these indirect techniques produced an identical estimates of TFR which is close to 3.3. Again the age specific fertility rates have also shown a declining trend in almost all ages during this period. With these age pattern of fertility the overall trend of Total Fertility Rate in the urban area of Nepal have exhibited a declining trend. However, the degree of reduction in fertility rate in urban area does not look sufficient to support only from this survey, this should also be verified with some other sources and supported by them. So other surveys should also be looked into to get into the probable level and trend of fertility in urban areas in recent years.

Retrospective surveys are the only kind of surveys which are conducted in Nepal but still not in a regular basis. However, up to now on the ages of the Central Bureau of Statistics two prospective rounds of surveys were also conducted - the Demographic Sample Survey of 1974/75 to 1977/78 and 1985/86 to 1986/87 (Chhetry, 1995). One of the other surveys recently conducted is the Nepal Family Health Survey of 1996. This survey has produced an urban estimate of TFR as 2.85 with the national estimate of TFR as 4.6. The estimate produced by this survey were mainly based on direct method of estimation.

5. Mortality Estimates

Just as birth is a one time event for a person in their lifetime, death or mortality is a similar event happening in the life cycle of human being. The study of mortality is not a new phenomena. However in Nepal mortality estimates have been generated from 1952/54 onwards. As the longevity of women is higher than men in most of the countries the study of mortality levels and differentials would also be an interesting part in mortality research (Simmons, 1986). The study of mortality and its differentials in Nepal is still lacking. The Demographic Sample Surveys shows that the urban mortality is considerably lower than the rural mortality (CBS, 1987).

In order to perform a detailed analysis of the data, the scope of the survey and the availability of the data can not be ignored completely. Taking this into account, the data generated from the Urban Population Survey is first of its kind and special care should be taken while handling the sample data. As the survey is only limited within the urban area with limited information in mortality, the study relating to mortality is confined within its limited boundary. This has impeded us to look into the levels, trends and differentials of mortality through a wider perspective.

The basic measures of mortality are crude death rates, age specific death rates, life expectancy at birth etc. Moreover, the risk of dying or probability of dying is a basis utilized for the construction of a life table. An attempt have been made here to look into some of the estimates of urban mortality.

Table 6 : Number and Percent Distribution of Deaths During a 24 Months Period, Urban Population Survey, 1996

Age Group	Deaths in 2051		Deaths in 2052		Average Deaths	
	Number	Percent	Number	Percent	Number	Percent
0	12	11	14	10.3	13	10.2
1 - 4	10	9.2	27	9.6	12	9.4
5 - 9	4	3.7	5	3.7	5	3.9
10-14	3	2.8	1	0.7	2	1.6
15-19	1	0.9	2	1.5	2	1.6
20-24	3	2.8	1	0.7	2	1.6
25-29	2	1.8	1	0.7	2	1.6
30-34	1	0.9	2	1.5	2	1.6
35-39	4	3.7	4	2.9	4	3.1
40-44	5	4.6	2	1.5	4	3.1
45-49	3	2.8	5	3.7	4	3.1
50-54	8	7.3	12	8.8	10	7.9
55-59	8	7.3	10	7.4	9	7.1
60-64	10	9.2	12	8.8	11	8.7
65 & +	35	32.1	52	38.2	45	35.5
Total	109	100.0	136	100.0	127	100.0

The distribution of deaths during the period 2051 and 2052 B.S. (Nepalese calendar) is shown in Table 6. According to the table, deaths are higher in the lower infant and child age groups and in the older ages 60 years and above. This pattern of age distribution of deaths is as expected. However, comparing the distribution of deaths over time shows the problem of recall lapse and under-reporting of deaths in the past. So, for the purpose of our study the average of deaths over a period of 24 months is taken. With this it is assumed that the effects of omissions and commissions is minimized to certain extent.

The median age at death in the urban area of Nepal as obtained from the above age distribution of deaths shows 55.83 years. This age is far above than the national average obtained for Nepal in 1991 as 39.08 years of median age at death. This shows that the median

age at death has increased over the years and this trend should also hold true in the urban area during the same period.

Table 7 : Central Death Rates (${}_n m_x$) and The Probability of Dying (${}_n q_x$) by Age for Urban Area, 1996

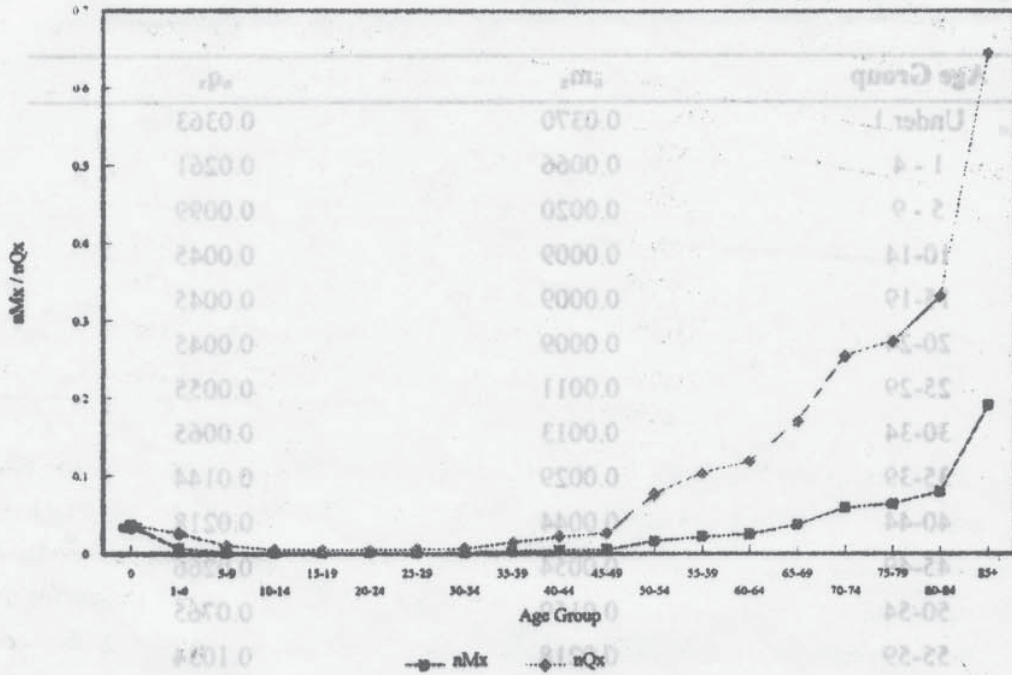
Age Group	${}_n m_x$	${}_n q_x$
Under 1	0.0370	0.0363
1 - 4	0.0066	0.0261
5 - 9	0.0020	0.0099
10-14	0.0009	0.0045
15-19	0.0009	0.0045
20-24	0.0009	0.0045
25-29	0.0011	0.0055
30-34	0.0013	0.0065
35-39	0.0029	0.0144
40-44	0.0044	0.0218
45-49	0.0054	0.0266
50-54	0.0159	0.0765
55-59	0.0218	0.1034
60-64	0.0251	0.1181
65-69	0.0370	0.1693
70-74	0.0583	0.2544
75-79	0.0634	0.2736
80-84	0.0794	0.3312
85 & over	0.1905	0.6452

The above table provides the age specific Central Death Rates (${}_n m_x$) and the Probability of Dying (${}_n q_x$) for the Urban area in 1996 (Table 7). Both the rates shows that deaths are higher in the earlier ages of infancy and then gradually declines thereafter and attains a minimum level at the age group 20-29 and then again rises up to age 65-69. Thereafter, the death rate increases sharply up to the terminal ages. However, slight distortion in different age groups have also been observed, which could be due to the problem of displacement or shifting the ages towards the adjoining age groups. These rates are also depicted in the graphical presentation (Figure 6). The figure also reveals the distribution of these rates by age and very

clearly indicates the likely distortions observed. This shows that some smoothing of these curve is necessary.

Figure 6.

Central Death Rates (nMx) and Probability of Dying (nQx) by Age
Urban Area, 1996



The average no of children ever born , children surviving and proportion dead from the Urban Survey 1996 and the Population Census 1991 is presented here for women aged 15-49 (Table 8). Looking at the table the proportion dead in 1996 is still higher compared to 1991. The difference in the two could be due to the differences in the coverage and methodology. Moreover, it is an accepted fact that the data and estimates obtained from the survey and censuses are not comparable most of the time and survey estimates are also taken as more realistic than that obtained from the censuses.

Table 8 : Average Number of Children Ever Born , Surviving and Proportion Dead by Age of Mother for Urban 1996 and 1991

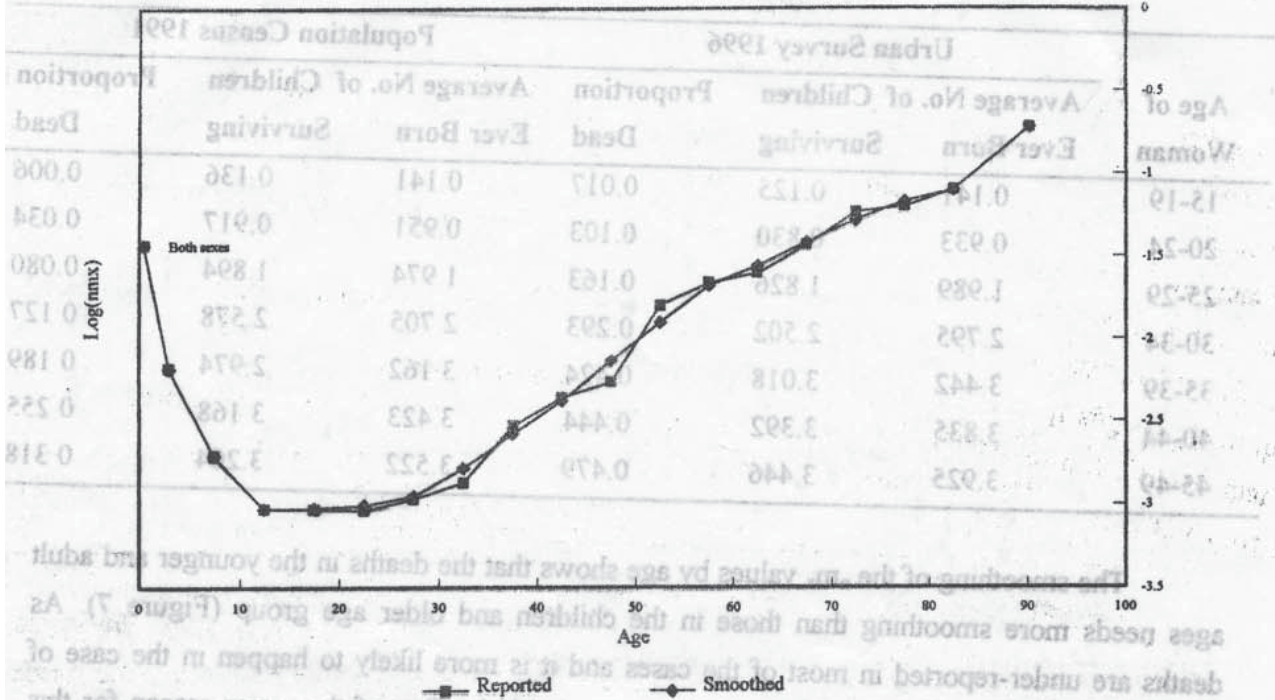
Age of Woman	Urban Survey 1996			Population Census 1991		
	Average No. of Children Ever Born	Proportion Surviving	Proportion Dead	Average No. of Children Ever Born	Proportion Surviving	Proportion Dead
15-19	0.141	0.125	0.017	0.141	0.136	0.006
20-24	0.933	0.830	0.103	0.951	0.917	0.034
25-29	1.989	1.826	0.163	1.974	1.894	0.080
30-34	2.795	2.502	0.293	2.705	2.578	0.127
35-39	3.442	3.018	0.424	3.162	2.974	0.189
40-44	3.835	3.392	0.444	3.423	3.168	0.255
45-49	3.925	3.446	0.479	3.522	3.204	0.318

The smoothing of the m_x values by age shows that the deaths in the younger and adult ages needs more smoothing than those in the children and older age group (Figure 7). As deaths are under-reported in most of the cases and it is more likely to happen in the case of infants, young and adults than those of children and elderly. One of the major reason for this could be the biases in proxy reporting of the deceased persons or it may be due to the recall lapse. Again, death being a very sensitive issue there is a big chance of under-reporting and non-reporting of such events.

The following table presents the Age Specific Death Rates (ASDR) and Crude Death Rate (CDR) for the Urban area in 1996 (Table 9). The age pattern of death shows that death are higher in infant ages and drops up to the young and adult ages. It again rises in the older ages and is highest in the oldest age group. Looking at this pattern it looks like the age curve mortality is transitioning from the U-shape to J-shape. This is most likely due to the high level of development in the urban area. Based on the same rate the Crude Death Rate is 6.9‰ which is lower than the CDR of 11.8‰ in the Urban area in 1986-87 obtained from the Demographic Sample Survey. Again the adjusted CDR is 6.6‰. In a similar manner the adjusted ASDR is also shown in the table. As these rates are based on the adjusted CDR, there are only slight discrepancy in the rates and no major changes noted.

Figure 7.
URBAN AREA OF NEPAL: 1996

1. Age-Specific Central Death Rates



6. Crude Death Rates (CDR) and Age Specific Death Rates (ASDR)

The following table presents the Age Specific Death Rates (ASDR) and Crude Death Rate (CDR) for the Urban area in 1996 (Table 9). The age pattern of death shows that deaths are higher in infant ages and drops up to the young and adult ages. It again rises in the older ages and is highest in the oldest age group. Looking at this pattern it looks like the age curve of mortality is transforming from the U-shape to J-shape. This is most likely due to the higher level of development in the urban area. Based on the same rate the Crude Death Rate is 6.9 ‰, which is lower than the CDR of 11.8 ‰ in the Urban area in 1986-87 obtained from the Demographic Sample Survey. Again the adjusted CDR is 6.6 ‰. In a similar manner the adjusted ASDR is also shown in the table. As these rates are based on the adjusted CDR there are only slight discrepancy in the rates and no major changes noted.

Table 9 : Age Specific Death Rates and The Crude Death Rate for Urban Area, 1996

Age Group	Age Specific Death Rate	Adjusted Age Specific Death Rate
0	39.9	38.2
1-4	7.2	6.9
5-14	1.3	1.2
15-24	0.7	0.7
25-34	0.9	0.9
35-44	2.6	2.5
45-64	17.6	16.8
65 & +	70.3	67.2
CDR	6.9	-
Adjusted CDR	-	6.6

The Crude Death Rate for the Urban area from 1974-75 to 1996 indicates the levels and trends of CBR during this period (See Table 10). According to the table the crude death rate varies in different years. No consistent pattern of crude death rate is observed during this period. However, ignoring the irregularities seen, an overall decline in the CDR have been observed during these period in the Urban area. The estimated adjusted CDR based on the Urban survey of 1996 is 6.6 %. Moreover, the estimate for 1991 is obtained as 8.5 % using the logistic interpolation of CDR of 1977-78, 1986-87 and 1996.

**Table 10 : Crude Death Rate (CDR) for Urban Area
1974-75 to 1996**

Year	CDR Urban
1774-75	9
1976	8.9
1977-78	12
1986-87	11.8
1991	8.5
1996	6.6

7. Infant Mortality Rates (IMR) and Child Mortality Rates (CMR)

The conventional Infant Mortality Rate (IMR) is defined as the number of infant deaths per year per 1000 live births during the year (Shryock, 1970). This rate also gives a close approximation of IMR, which is the chance of dying between birth and attainment of first birthday. According to the survey data the Infant Mortality Rate thus obtained is 42 % for the urban area. This rate is lower than the IMR of 69 % revealed from the NFHS 199 for the period 1989. This envisages us to look into the level of IMR using some indirect techniques. There is a good indication of a decline in the Infant Mortality Rate over the years from recent past up to the present.

Table 11 : Estimates of Infant Mortality, Child Mortality and Life Expectancy at Birth (Both Sexes) from the Children Ever-Born and Children Surviving Data, Urban 1996

Urban Survey 1996				
Age Group	Ref. Date	IMR	CMR	e0
15-19	Dec. 1994	0.124	0.067	49.5
20-24	Oct. 1993	0.096	0.047	54.7
25-29	Feb. 1992	0.065	0.026	61.2
30-34	Dec. 1989	0.076	0.032	58.9
35-39	Jun. 1987	0.082	0.036	57.6
40-44	Aug. 1984	0.073	0.030	59.6
45-49	Feb. 1981	0.070	0.029	60.1

The above table shows the Infant mortality, Child mortality and the Life expectancy for Urban Nepal. According to the survey, the Infant mortality rate of 96 is yielded for Oct. 1993. Similarly the survey shows a Child mortality rate of 47 and an life Expectancy at birth of 54.7 for the same period (See Annex Table 1).

Looking at the past trend of IMR from 1986 to 1989 the estimated IMR for the Urban Area in 1996 is 85 % . This shows that the IMR for the Urban Area obtained from the Survey results using an indirect method CEBCS is still higher (UN, 1988). In a similar manner,

looking at the past trend the life expectancy at birth of around 60 years is estimated for the period 1996 in the urban area with this method.

Again, the IMR estimated by the NFHS 1996 is 61.1, which is lower than the above estimates. This shows that, though mortality is declining over the years, the estimated figures are not consistent from one source to the other revealing some erratic trend. Looking at the past trend the estimate obtained from the NFHS 1996 is lower than the Urban survey and looks reasonable. However, these estimates are also obtained from the direct measurement of the survey information (NFHS, 1996).

8. Life Expectancy at Birth

Based on the observed $n m_x$ and $n q_x$ values the life table generated for both sexes is presented in the Annex Table 2. According to the smoothed abridged life table the expectation of life at birth e^0_0 for both sexes is 65.65 years for the urban area. These rates indicates that due to the improvement in the health conditions in the urban area mortality has declined considerably and the life expectancy have gone up.

As the information on mortality is always lacking at the national level, there is hardly any up-to-date information available for the urban area. However, an effort has been made here to assemble the bits and pieces of mortality information in the urban area. So, in order to arrive at a likely estimate of infant mortality, child mortality and life expectancy in the urban area verification from other sources is needed as well. Only then we could arrive at a likely mortality estimates and probable conclusion for the urban area.

9. Conclusion

The above analysis has tentatively shown some pattern and yielded likely estimates on nuptiality, fertility and mortality of urban areas. Limited information is used to shed light on the levels and trends in urban nuptiality, fertility and mortality. In the absence of vital registration and other urban surveys, the findings of these results would certainly be of help to policy makers and researchers. Still there is a big need of up-to-date information on these aspects which is always lacking for urban areas. In order to fulfill these deficiency, there is an urgent need of periodic representative surveys for generating timely and reliable urban estimates and make comparisons in the future.

**INDIRECT ESTIMATION OF EARLY AGE MORTALITY
FOR URBAN POPULATION SURVEY, 1996**

Age of Woman	Average No. of Children Born	Surviving	Dead	Proportion	Age X	Probability of Dying before Age X							
						United Nations Models (Palloni-Helgman Equations)			Coale-Demeny Models (Trussell Equations)				
					Lat Am	Chilean So	Asian east	Far east	General	West	North	East	South
15-20	141	.125	.113	1	.116	.128	.116	.116	.116	.124	.121	.125	.118
20-25	.933	.830	.110	2	.117	.120	.118	.115	.116	.116	.111	.116	.116
25-30	1.989	1.826	.082	3	.083	.084	.084	.082	.083	.082	.078	.082	.083
30-35	2.795	.502	.105	5	.106	.106	.107	.105	.105	.106	.103	.106	.107
35-40	3.442	.018	.123	10	.127	.124	.127	.124	.126	.126	.129	.127	.128
40-45	3.835	3.392	.116	15	.114	.115	.117	.114	.114	.117	.119	.117	.117
45-50	3.925	3.446	.122	20	.121	.121	.122	.120	.121	.123	.124	.122	.123

Annex - Table 1 (contd...)

MEAN AGE AT CHILDBEARING = 26.77

CORRESPONDING MORTALITY INDICES

Age of Woman	Preference		United Nations Models (Palloni-Heligman Equations)					Preference		West	North	East	South
	Date		Lat AM	Chile an	So Asian	Far east	Gener al	Date					
15-20	Dec	1994	.116	.128	.116	.116	.116	JAN	1995	124	121	125	118
20-25	Oct	1993	.093	.107	.094	.095	.095	Oct	1993	.096	.088	102	095
25-30	Feb	1992	.063	.074	.065	.065	.065	Oct	1991	.065	.058	.070	068
30-35	Dec	1989	.072	.088	.075	.075	.075	Jul	1989	.076	.066	083	079
35-40	Jun	1987	.078	.097	.082	.080	.081	Dec	1986	.082	.071	.092	087
40-45	Aug	1984	.069	.088	.075	.070	.071	Mar	1984	.073	.062	.083	080
45-50	Feb	1981	.070	.088	.075	.067	.071	Apr	1981	.070	.059	.081	080
PROBABILITY OF DYING BETWEEN AGES 1 AND 5													
15-20	Dec	1994	.083	.038	.074	.069	.072	Oct	1995	.067	.093	.046	074
20-25	Oct	1993	.056	.028	.052	.049	.050	Oct	1993	.047	.060	.034	045
25-30	Feb	1992	.029	.015	.027	.026	.026	Jul	1991	.026	.032	.018	021
30-35	Dec	1989	.037	.020	.035	.032	.033	Dec	1989	.032	.040	024	030
35-40	Jun	1987	.042	.024	.041	.036	.038	Mar	1986	.036	.044	.028	037
40-45	Aug	1984	.034	.020	.035	.029	.031	Apr	1984	.030	.036	.024	031
45-50	Feb	1981	.034	.020	.036	.027	.031	APR	1981	.029	.033	.023	030
LIFE EXPECTANCY AT BIRTH													
15-20	Dec	1994	50.2	52.6	54.5	43.3	48.8	Oct	1995	49.5	47.2	53.8	53.6
20-25	Oct	1993	56.4	56.8	59.4	48.8	54.3	Oct	1993	54.7	54.5	57.4	59.5
25-30	Feb	1992	64.4	63.9	66.3	57.0	62.2	Jul	1991	61.2	62.0	63.0	66.5
30-35	Dec	1989	61.8	60.9	63.8	54.3	59.6	Dec	1989	58.9	59.8	60.6	63.6
35-40	Jun	1987	60.3	58.9	62.2	52.9	58.0	Mar	1986	57.6	58.6	59.1	61.6
40-45	Aug	1984	62.7	60.9	63.9	55.5	60.4	Apr	1984	59.6	60.9	60.8	63.4
45-50	Feb	1981	62.6	61.0	63.7	56.3	60.5	APR	1981	60.1	61.7	61.1	63.5

Annex -Table 2

A. Abridged Life Table Based on Deaths and Population: Both sexes

Age, x	Width, n	nMx	max	ngx	lx	ndx	nLx	SPx	Tx	ex
0	1	0.03704	0.152	0.03591	100,000	3,591	96,953	0.95269	6,563,173	65.63
1	4	0.0066	1.506	0.02598	96,409	2,504	379,391	0.98087	6,466,219	67.07
5	5	0.00196	2.5	0.00977	93,905	918	467,231	0.99275	6,086,828	64.82
10	5	0.00094	2.5	0.00471	92,987	438	463,843	0.99531	5,619,598	60.43
15	5	0.00094	2.5	0.00468	92,550	433	461,667	0.99537	5,155,755	55.71
20	5	0.00092	2.5	0.00459	92,117	423	459,528	0.99502	4,694,088	50.96
25	5	0.00108	2.5	0.00538	91,694	493	457,239	0.99395	4,234,560	46.18
30	5	0.00135	2.5	0.00672	91,201	613	454,473	0.98934	3,777,320	41.42
35	5	0.00295	2.5	0.01462	90,588	1,324	449,629	0.98183	3,322,847	36.68
40	5	0.0044	2.5	0.02176	89,264	1,943	441,462	0.97572	2,873,218	32.19
45	5	0.00544	2.5	0.02685	87,321	2,344	430,744	0.94869	2,431,757	27.85
50	5	0.0159	2.5	0.07645	84,977	6,497	408,642	0.91053	2,001,012	23.55
55	5	0.02184	2.5	0.10357	78,480	8,128	372,081	0.88966	1,592,370	20.29
60	5	0.02506	2.5	0.1179	70,352	8,294	331,024	0.85792	1,220,289	17.35
65	5	0.03704	2.5	0.16949	62,058	10,518	283,993	0.79198	889,265	14.33
70	5	0.0583	2.5	0.2544	51,539	13,112	224,918	0.73742	605,272	11.74
75	5	0.06338	2.5	0.27356	38,428	10,512	165,858	0.70222	380,354	9.9
80	5	0.07937	2.5	0.33113	27,916	9,244	116,469	0.45701	214,497	7.68
85	+	0.19048	5.25	1	18,672	18,672	98,028		98,028	5.25

Annex - Table 2 (Contd..)

B. Smoothed Abridged Life Table Based on Deaths and Population: Both sexes

Age, x	n	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
Age, x		Width, n								
0	1	0.03704	0.152	0.03591	100,000	3,591	96,953	0.95269	6,565,011	65.65
1	4	0.0066	1.506	0.02598	96,409	2,504	379,391	0.98087	6,468,058	67.09
5	5	0.00196	2.5	0.00977	93,905	918	467,231	0.99275	6,088,666	64.84
10	5	0.00094	2.5	0.00471	92,987	438	463,843	0.99528	5,621,436	60.45
15	5	0.00095	2.5	0.00474	92,550	439	461,652	0.99515	5,157,593	55.73
20	5	0.00099	2.5	0.00496	92,111	457	459,413	0.99473	4,695,942	50.98
25	5	0.00112	2.5	0.0056	91,654	513	456,990	0.99309	4,236,528	46.22
30	5	0.00165	2.5	0.00824	91,142	751	453,831	0.98933	3,779,538	41.47
35	5	0.00264	2.5	0.01313	90,391	1,187	448,988	0.98305	3,325,707	36.79
40	5	0.00421	2.5	0.02082	89,204	1,857	441,379	0.97156	2,876,719	32.25
45	5	0.00738	2.5	0.03623	87,347	3,165	428,825	0.9516	2,435,340	27.88
50	5	0.01259	2.5	0.06103	84,183	5,137	408,070	0.92034	2,006,515	23.84
55	5	0.02094	2.5	0.09951	79,045	7,866	375,562	0.88613	1,598,446	20.22
60	5	0.02776	2.5	0.12981	71,180	9,240	332,799	0.84886	1,222,883	17.18
65	5	0.03851	2.5	0.17564	61,940	10,879	282,501	0.79892	890,084	14.37
70	5	0.05247	2.5	0.23193	51,061	11,843	225,697	0.74314	607,583	11.9
75	5	0.06765	2.5	0.28931	39,218	11,346	167,725	0.69332	381,886	9.74
80	5	0.07937	2.5	0.33113	27,872	9,229	116,287	0.45701	214,161	7.68
85	+	0.19048	5.25	1	18,643	18,643	97,875		97,875	5.25

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CHAPTER IV

Economically Active Urban Population

- Rabi Prasad Kayastha

1. Introduction

The information on labour force is most essential for successful economic development planning. Similarly, it is equally essential to policy makers for appropriate and effective manpower development planning, i.e., to identify the field of training requirement and educational policy. Labour statistics will also provide information about undesirable economic and social conditions such as child labour, sex differential in economic participation rate, and occupation as well as employment status, etc. Sources of these labour statistics are the decennial population censuses, periodic labour surveys, industrial surveys, etc. In the context of Nepal, decennial population censuses are the main source of labour force statistics. Again, some periodic surveys also provide some amount of labour statistics. But the survey data have their own limitations and these are not conducted regularly for the comparative analysis. Central Bureau of Statistics had conducted 'Urban Population Survey 1996' and it covered 36 Municipalities that were regarded as urban areas of Nepal during the period. One of the main objectives of the survey was the collection of information on labour force situation in urban population of the country.

The present study is based only on result of this Urban Population Survey 1996. This survey collected information on economic activity of population aged 10 years and above. In the survey, questions on economic activity were asked for two reference periods; prior to one week and one year preceding the field enumeration. So, the survey adopted both 'gainfully employed' as well as 'labour force' approaches. On the basis of the survey result, it will be tried to analyse age specific participation rate by sex, duration of work, unemployment and distribution of employed population by occupation and industry.

2. Concept and Approach

It is noted that employed population refers to all persons of specified age groups who are engaged in the production of goods and services during the reference period which are marketed and those will be included in estimation of national account. But Nepalese economy depends predominantly on agriculture that is subsistence oriented. Employment in agricultural

sector is highly influenced by seasonal variation. In such a situation, employment should be studied in the context of gainfully employed approach. This concept will avoid the effect of seasonal variation of employment. Therefore, population censuses in the country used this concept for the collection of economically active population data. The population census 1991 also used gainfully employed approach and all persons of age 10 years and above who usually worked in the production of economic goods and services for any length of time during the twelve months preceding the census enumeration was regarded as economically active population. This concept was also followed by Urban Population Survey 1996. It is pointed out that there are some differences in occupational and industrial distribution of economically active population between urban and rural. Generally, the proportion engaged in agricultural sector in urban economy will be less and there will be more employment opportunities outside this sector. So, the employment situation in urban areas will be less affected by the seasonal variation. In such a context, it is also suitable to study the distribution of economically active population using labour force approach rather than gainfully employed approach. As stated earlier, Urban Population Survey 1996 had collected data on economically active population in two reference periods suited to gainful as well as labour force approach. The gainful approach that used one year reference period prior to the survey field enumeration will help to observe the trend and changes in the employment structure compared to the population census. Whereas data using one week reference period prior to the survey interview will show the labour force structure and provide the picture of employment, unemployment and underemployment in urban areas of Nepal. According to the labour force approach, all persons of age 10 years and above who worked in the production of economic goods and services at least one hour during the reference week were regarded as employed or economically active. Again, persons who were not in work during the reference period due to leave, illness, strike, etc. but were not detached from their job, i.e., laid-off were also included in employed category. The term labour force refers to the population of specified age who were employed as well as unemployed. Unemployment refers to person who is not currently employed and willing to work as well as actively seeking job.

3. Participation Rate

The number of person employed in production of economic goods and services per 100 population of age 10 years and above during the specified reference period is called the participation rate. It is affected by various reasons such as higher rate of school enrolment, cultural factor, increasing frustration of people that stimulates to report as economically inactive, and so on. Table 1 shows participation rate at current and usual (gainful) activity

status by sex for 1991 and 1996. The 1991 population census provided only usual participation rate and current activity information was not collected, i.e., in one week reference period. The total participation rate for the national as a whole was 56.99 percent and it was only 40.76 percent in urban areas. The Urban Population Survey 1996 showed that the usual participation rate was 44.49 percent that was slightly higher than in 1991. Male participation rate was nearly the same in both census and survey. So, the increment in usual participation rate in urban areas was mainly contributed by more female participation rate. But, female participation was less than male due to exclusion of own domestic works such as cooking, child rearing, firewood collection, fetching water and all other household activities. These works are not regarded as economic activities which are not marketed and these activities are performed mostly by female in Nepalese context. Again, some social and cultural factors are also responsible for this low female participation rate. Being male dominated society, people do not want to report female economic contributions. However, the survey showed the increment of female participation at usual activity status, i.e., from 20.34 percent in 1991 to 28.66 percent in 1996. Questionnaire instruction to the Enumerators, training and other factors used in the field work might also affect the result. It is obvious that the survey used some probing questions about economic activity. Awareness of people and the effectiveness of income generating program launched for female may have also contributed to this increment in female participation rate (CBS,1995).

Table 1 : Refined participation rates for population age 10 years and above by sex for urban Nepal, 1991-1996.

	Sex	Population Census 1991		Urban Pop.Survey
		National	Urban	1996
Current Activity	Both Sexes	-	-	38.51
	Male	-	-	55.7
	Female	-	-	19.75
Usual Activity	Both Sexes	56.99	40.76	44.49
	Male	68.71	59.44	58.92
	Female	45.53	20.34	28.66

Source: CBS, 1993. Population Census 1991, vol I, Part XIII, Table 30.

CBS, Urban Population Survey, 1996.

The current participation rate is lower than the usual participation rate. As stated earlier that current economic participation might be affected by seasonal variation. The survey field work

was conducted just before monsoon rain (28 May to 20 June, 1996). Agriculture work of summer crops was not started during the survey field work. Then it can be concluded that seasonal effect might be one of the reasons for lower current participation rate. Comparatively, male participation rate was less influenced by seasonal variation of employment. It is noted here that more female employed populations were concentrated in agriculture and related occupation (Table 5). So, there was more difference in female participation rate between current and usual activity.

3.1 Age specific participation rate

Age specific participation rate refers to the number of economically active population of the specified age per 100 population of that age. The age group 10-14 years may be indicative of the situation of child labour in urban areas of the country. The young group in population, generally, is in age group 15-39 years. Similarly, the age group 60 and above years is regarded as aged population. The current participation rate for age group 10-14 years is lower than usual participation rate of both survey and census. However, in the survey the usual participation rate was increased from 7.56 percent in 1991 census to 11.14 in 1996. This situation might show that child participation in economic activity in urban areas has been increasing though the current participation rate was low. In this age group, female current participation rate was lower than male and there were not remarkable difference between male and female in usual participation rate. In the case of youth labour participation (age group 15-39 years), female usual participation increased in 1996 though female participation rate was lower than male. The population of age group 15-59 year is, generally, considered as working age population. Participation rates for this age group were also found to be similar as in the total participation rates. Economic participation at age 60 and above years will be considered as old age participation rate. Usual participation rate of this age group increased to 30.61 percent in 1996 from 27.52 percent in 1991 population census. Similarly, old age female usual participation rate also remarkably increased in 1996, whereas male usual participation rate in this age group slightly decreased in the survey.

Usual Activity	Both Sexes	Male	Female
1996	11.14	10.71	11.44
1991	7.56	7.52	7.56

Source: CBS, 1993 Population Census 1991, vol I, Part XIII, Table 30.

CBS, Urban Population Survey, 1996

The current participation rate is lower than the usual participation rate. As stated earlier that current economic participation might be affected by seasonal variation. The survey field work

Table 2 : Age specific participation rate for population aged 10 years and above by sex for urban Nepal, 1991-1996.

Age Groups	Participation Rate		
	Population	Urban Population Survey 1996	
	Census 1991	Current	Usual
Both Sexes	40.76	38.51	44.49
10-14 Years	7.56	6.34	11.14
15-19 Years	23.26	18.26	24.67
20-24 Years	42.03	38.35	43.86
25-29 Years	55.02	49.85	55.62
30-34 Years	61.19	59.59	64.83
35-39 Years	63.13	62.38	68.43
15-39 Years	45.91	43.15	49.00
40-44 Years	62.62	60.66	66.42
45-49 Years	61.28	57.47	66.07
50-54 Years	55.98	46.52	52.53
55-59 Years	51.29	43.99	51.16
40-59 Years	58.97	53.93	60.74
60-64 Years	37.05	32.34	40.79
65+ Years	21.82	19.72	24.39
60 & Above Years	27.52	24.42	30.61
15-59 Years	47.22	45.64	51.73
Male	59.44	55.70	58.92
10-14 Years	8.02	7.10	11.09
15-19 Years	29.56	24.15	29.16
20-24 Years	60.86	55.96	56.81
25-29 Years	83.10	75.25	78.18
30-34 Years	90.43	86.15	87.98
35-39 Years	91.97	87.47	89.44
15-39 Years	66.58	62.39	65.01
40-44 Years	91.33	87.87	87.43
45-49 Years	89.56	81.52	86.49

Contd...

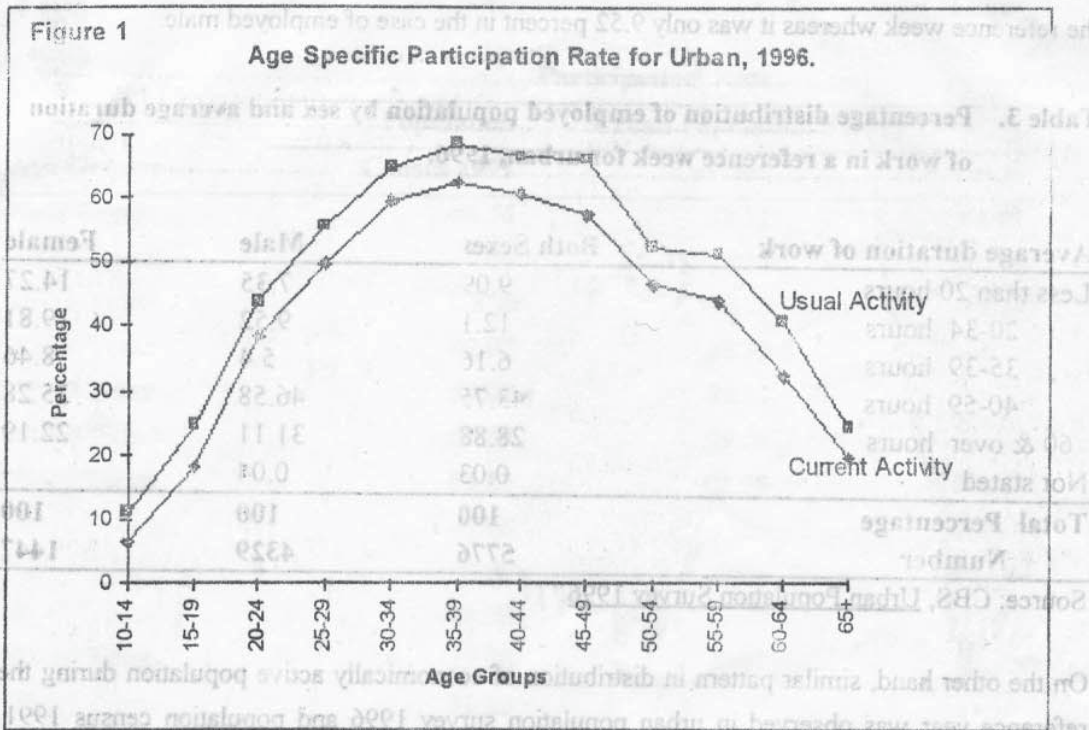
Table 2: Age specific participation rate for population aged 10 years and above by sex for urban Nepal, 1991-1996.

Age Groups	Participation Rate		
	Population	Urban Population Survey 1996	
	Census 1991	Current	Usual
50-54 Years	84.11	72.58	75.68
55-59 Years	78.66	65.64	73.04
40-59 Years	87.24	79.35	82.35
60-64 Years	61.17	53.26	59.57
65+ Years	37.82	30.86	34.51
60& Above Years	46.68	39.11	43.78
15-59 Years	69.63	66.49	69.28
Female	20.34	19.75	28.66
10-14 Years	7.04	5.39	11.19
15-19 Years	16.37	11.95	19.85
20-24 Years	22.60	21.03	31.00
25-29 Years	25.86	26.14	34.70
30-34 Years	28.85	30.74	39.74
35-39 Years	29.78	30.96	41.55
15-39 Years	23.65	22.98	32.11
40-44 Years	29.15	26.32	39.71
45-49 Years	27.30	28.87	41.45
50-54 Years	23.89	16.18	25.40
55-59 Years	19.79	20.99	27.19
40-59 Years	25.96	23.78	34.85
60-64 Years	13.11	12.35	22.48
65+ Years	6.59	8.61	14.34
60& Above Years	9.00	9.82	17.44
15-59 Years	22.89	23.15	32.72

Source: Same as in Table 1.

Table 2 shows that participation in economic activity is closely related to age of population. It is obvious that participation rate will be low at younger age and it will increase as age rises. Attaining the highest participation with rising it, the rate will start to decline with increase in

age of population. Figure 1 will clearly explain this fact. In both cases - current and usual participation rates, increased up to age 39 years and started to decline beyond this age.



4. Duration of Work

Urban Population Survey 1996 had also collected information on the average duration of work of those who were employed in the production of economic goods and services during the reference period. This will provide some help to identify the proportion of under-employed population. Table 3 shows the average duration of work of employed population by sex for the current status of employment, i.e., in one week reference period. Generally, a person is regarded as fully employed if he/she works about 40 to 59 hours in a week. It is noted here that the normal working hour in His Majesty's Government of Nepal is 40 hours a week. If this is taken as the indicator of full-employment, all persons having average duration of work below 40 hours in a week should be categorised as under-employed. But there is possibility that some of these employed persons might be newly recruited in the middle or end of the reference week and they do not have opportunity to work the full period. Then, their average duration of work might be, obviously, below the normal working hours. In the current employment situation,

43.75 percent worked for 40-59 hours during the reference week. The survey shows that about 27 percent were under-employed (worked less than 40 hours in a week). Females were more under-employed than male and 19.81 percent of employed female worked only 20-34 hours in the reference week whereas it was only 9.52 percent in the case of employed male.

Table 3. Percentage distribution of employed population by sex and average duration of work in a reference week for urban, 1996.

Average duration of work	Both Sexes	Male	Female
Less than 20 hours	9.09	7.35	14.27
20-34 hours	12.1	9.52	19.81
35-39 hours	6.16	5.4	8.46
40-59 hours	43.75	46.58	35.28
60 & over hours	28.88	31.11	22.19
Not stated	0.03	0.04	-
Total Percentage	100	100	100
Number	5776	4329	1447

Source: CBS, Urban Population Survey 1996.

On the other hand, similar pattern in distribution of economically active population during the reference year was observed in urban population survey 1996 and population census 1991. Table 4 shows that economically active population in both survey and census were mostly employed for eight and more months in the reference year. Both census and survey data show that female was comparatively under-employed. Again, the proportion of female whose average duration of work was reported below eight months was slightly higher in the survey.

Table 4. Percentage distribution of economically active population by sex and average duration of work in a reference year for urban areas, 1991-1996.

Average duration of work	Population Census			Urban Population Survey		
	1991	1991	1991	1996	1996	1996
	Total	Male	Female	Total	Male	Female
Less than 3 months	1.29	1.07	1.97	2.24	1.61	3.99
3-5 months	2.60	2.13	4.10	6.70	5.25	10.67
6-7 months	8.67	7.63	11.97	7.11	6.23	9.61
8 & over months	86.66	88.38	81.14	83.70	86.62	75.55
Not stated	0.78	0.78	0.80	0.25	0.29	0.18
Total Percentage	100.00	100.00	100.00	100.00	100.00	100.00
Number	514610	391844	122766	6079	4476	1603

Source: CBS (1994). Population Census 1991, unpublished urban table.
CBS Urban Population Survey 1996.

5. Occupational Distribution

The pattern of occupational distribution gives a general picture of the level of socio-economic development of the economy and it provides necessary guideline for future human resource development planning. In 1991 population census, about 81 percent of total economically active population was engaged in agricultural sector whereas it was only 23.80 percent in the case of urban areas (CBS, 1995). These facts clearly show that urban economy might be different and there were more economic sectors that were providing employment opportunities other than agriculture. Table 5 shows that more females were still engaged in agricultural occupation compared to male. In 1996 survey, same situations prevailed in the case of occupational distribution of employed population in current as well as usual status. It is noted that females were still not working outside traditional labour market, i.e., agricultural sector and it might be the influence of exiting socio-cultural behaviour though comparatively more job opportunities were available outside this sector in urban areas.

Table 5. Percentage distribution of employed population by sex and occupation for urban areas, Nepal, 1991-1996.

	Sex	Occupation Groups			Total	
		Agriculture	Non-Agriculture	Not Stated	Percent	Number
Population Census 1991	Total	23.80	75.58	0.62	100.00	514,610
	Male	19.37	80.01	0.62	100.00	391,844
	Female	37.96	61.42	0.62	100.00	122,766
Urban Population Survey 1996	Total	14.32	85.58	0.14	100.00	776
	Male	11.93	87.93	0.14	100.00	4,329
	Female	21.45	78.55	0.00	100.00	1,447
Usual employed	Total	17.52	82.38	0.10	100.00	6,079
	Male	13.84	86.03	0.13	100.00	4,476
	Female	27.80	72.20	0.00	100.00	1,603

Source: CBS (1993). Population Census 1991, vol II, table 14.

CBS, Urban Population Survey, 1996.

In 1991, agriculture occupied the highest percentage of employed population followed by production and services occupational categories. But there was slightly changes in the occupational distribution in currently as well as usually employed in the survey result. The survey result shown in Table 6 indicates that production sector constituted the highest percentage of employed population followed by sales, clerical, agriculture and services in current employment status. Whereas it was production, sales and agriculture in the first, second and third places respectively in usual activity status. In the case of female, agricultural occupation occupied the highest percentage in 1991 population census and the survey 1996 (current and usual status) followed by production and sales. On the other hand, production sector constituted the highest percentage in the case of male population. Sales and clerical works were the second and the third ranks respectively in 1996. It is interesting to note that the proportion of female population engaged in professional and technical works was higher in current and usual activity status in 1996 compared to 1991 census. Similarly, this proportion was higher than male engaged in this occupational category in 1991 census and the survey

result. Again, lower percentage of female workers was observed in administrative and related works as well as clerical works compared to male workers in both 1991 and 1996.

Table 6. Percentage distribution of employed population by sex and major occupation groups for current and usual employment, urban areas, 1991-1996.

Occupation Groups	Population Census 1991			Urban Population Survey 1996					
	Total	Male	Female	Currently Employed			Usually Employed		
				Total	Male	Female	Total	Male	Female
Professional & Technical	5.68	5.13	7.45	8.45	7.44	11.46	7.93	7.09	10.27
Administrative & Related	2.88	3.41	1.20	3.41	3.89	1.97	3.06	3.59	1.58
Clerical	6.72	7.45	4.37	14.40	16.99	6.64	13.76	16.50	6.10
Sales	16.19	17.64	11.57	21.76	22.76	18.77	20.57	21.69	17.43
Services	17.46	17.69	16.70	13.08	11.33	18.30	12.76	11.33	16.76
Agriculture	23.80	19.37	37.96	14.32	11.93	21.45	17.52	13.84	27.80
Production	18.35	19.49	14.70	22.76	23.48	20.60	22.36	23.55	19.05
Others	8.30	9.20	5.42	1.73	2.04	0.81	1.94	2.28	1.01
Not Stated	0.62	0.62	0.62	0.10	0.14	0.00	0.10	0.13	0.00
Total Percent	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Number	514610	391844	122766	5776	4329	1447	6079	4476	1603

Source: Same as in Table 5.

In agriculture sector, the highest percentage of population was engaged for less than 20 hours in the reference week. So, it could be concluded that underemployment was prevalent in this sector. Table 7 shows that very few percentages of employed population in agriculture sector were working for 40 and over hours in the reference week. On the contrary, a large percentage in non-agricultural occupations was found to have worked 40 hours or more. This type of percentage distribution was observed for male as well as female population. The percentage of female who worked for less than 20 hours in the reference period was higher than that of male in agricultural occupations.

Table 7. Distribution of employed population by average duration of work (in one week reference) and major occupation groups for urban areas, Nepal, 1996.

Average duration of work	Total	Agriculture	Non-Agriculture	Not stated
Both Sexes	5776	14.32	85.58	0.10
Less than 20 hours	525	56.76	43.24	0.00
20-34 hours	699	39.48	60.52	0.00
35-39 hours	356	15.45	84.55	0.00
40-59 hours	2526	5.74	94.26	0.24
60 & over hours	1668	3.06	96.94	0.00
Not stated	2	100.00	0.00	0.00
Male	4329	11.92	87.94	0.14
Less than 20 hours	318	53.46	46.54	0.00
20-34 hours	412	40.05	59.95	0.00
35-39 hours	234	16.24	83.76	0.00
40-59 hours	2016	5.26	94.74	0.30
60 & over hours	1347	2.67	97.33	0.00
Not stated	2	0.00	0.00	100.00
Female	1447	21.42	78.58	0.00
Less than 20 hours	206	62.14	37.86	0.00
20-34 hours	287	38.68	61.32	0.00
35-39 hours	122	13.93	86.07	0.00
40-59 hours	511	7.63	92.37	0.00
60 & over hours	321	4.67	95.33	0.00
Not stated	-	-	-	-

Source: CBS, Urban Population Survey 1996.

Table 8 shows the average duration of work of employed population by agricultural and non-agricultural occupations in usual activity status for 1991-1996. According to this, population engaged in agriculture worked mostly 3 to 7 months and the percentage of employed in agriculture who worked for 8 months and over in the reference year was found to be very low in 1996. It also reflected the existence of higher proportion of underemployment in this occupation. Further full-time (worked eight months and over) agricultural worker was found to be very low in 1996 survey compared to 1991 population census. The percentage of female full-time agriculture worker was observed almost double compared to male workers in both

1991 census and the survey result. The percentage of full-time agriculture worker was observed more than double in 1991 census compared to the survey 1996.

Table 8. Distribution of employed population by average duration of work (in one year reference) and major occupation groups for urban areas, Nepal, 1991-1991.

Average duration of work	Population Census 1991				Urban Population Survey 1996			
	Total N	Agricu- lture	Non- agricu- lture	Not stated	Total N	Agricu- lture	Non- agricu- lture	Not stated
Both sexes	514610	23.80	75.58	0.62	6079	17.52	82.38	0.10
Less than 3 months	6630	30.63	68.31	1.06	136	69.14	30.86	0.00
3-5 months	13384	53.80	45.74	0.46	407	69.25	30.75	0.00
6-7 months	44614	50.09	49.42	0.49	432	52.02	47.98	0.00
8 & over months	445948	20.28	79.15	0.57	5088	9.07	90.93	0.12
Not stated	4034	19.98	72.43	7.59	15	18.18	81.82	0.00
Male	391844	19.37	80.01	0.62	4476	13.83	86.04	0.13
Less than 3 months	4206	24.08	74.78	1.14	72	67.94	32.06	0.00
3-5 months	8347	47.63	51.93	0.44	235	64.67	35.33	0.00
6-7 months	29915	44.65	54.89	0.46	279	46.12	53.88	0.00
8 & over months	346330	16.54	82.89	0.57	3877	7.44	92.56	0.15
Not stated	3046	8.93	83.85	7.22	13	10.99	89.01	0.00
Female	122766	37.96	61.42	0.62	1603	27.80	72.20	0.00
Less than 3 months	2424	42.00	57.09	0.91	64	70.48	29.52	0.00
3-5 months	5037	64.01	35.49	0.50	171	75.54	24.46	0.00
6-7 months	14699	61.15	38.30	0.55	154	62.70	37.30	0.00
8 & over months	99618	33.28	66.17	0.55	1211	14.29	85.71	0.00
Not stated	988	22.06	69.24	8.70	3	52.55	47.45	0.00

Source: Same as in Table 4.

6. Industrial Distribution

Personal and community service is the major industry group that constituted the highest percentage of economically active urban population in 1991 and 1996. It occupied one third of employed population in one year reference period. Similarly, this industry group also holds the highest percentage in the current activity status, i.e., in one week reference period. In 1991,

agriculture was the second largest industry group followed by trade and commerce. Whereas trade and commerce industry group appeared in the second place after personal and community services group in usual activity status in 1996. This industry holds the same rank in current activity statistics in 1996. But, the percentage of agriculture industry group had gone down to third position. The survey result shows that the share of manufacturing industry had increased in current as well as usual activities compare to 1991 census. In the case of female employed population distribution, agriculture industry was in the third rank in both usual and current activities. But the percentage distribution of male employed population was found low in agriculture in 1996. In manufacturing industry group, the survey result shows that higher percentage of male was observed in current and usual activity status compared to the percentage of female. But it was reverse situation in 1991 census. Again, the male percentage was nearly doubled in the survey 1996 compared to 1991 census.

Table 10 shows the percentage distribution of employed population by agriculture and non-agriculture industry for duration of work in the reference week. Higher percentage of employed persons was concentrated mainly in non-agricultural industry in current activity status. As duration of work increased, the percentage of employed population was also higher in non-agriculture industry. As stated earlier, productions of household goods that are not marketed are considered as non-economic activity. These activities are generally performed by female. It might be the cause that the higher proportion of female compared to male worked for less than forty hours in the reference week. Similar pattern of distribution of economically active population was also found in usual activity status in survey result and census (Table 11).

Duration of work	1991	1996	1991	1996
Not stated	988	22.06	69.34	8.70
8 & over months	99618	33.28	66.17	0.22
6-7 months	14699	61.12	38.30	0.22
3-5 months	2037	64.01	32.49	0.20
Less than 3 months	2424	41.00	27.09	0.21
Total	2424	100.00	100.00	100.00

Source: Same as in Table 4

6. Industrial Distribution

Personal and community service is the major industry group that constituted the highest percentage of economically active urban population in 1991 and 1996. It occupied one third of employed population in one year reference period. Similarly, this industry group also holds the highest percentage in the current activity status, i.e., in one week reference period. In 1991

Table 9 : Percentage distribution of employed population by sex and major industry groups for current and usual employment, urban areas, Nepal, 1991-1996

Industry Groups	Population Census 1991			Urban Population Survey 1996					
	Total	Male	Female	Currently employed			Usually employed		
				Total	Male	Female	Total	Male	Female
Agriculture, Forestry & Fishing	24.07	19.67	38.12	14.29	11.91	21.41	17.59	13.90	27.89
Mining & Quarrying	0.13	0.13	0.12	0.07	0.09	0.00	0.06	0.07	0.02
Manufacturing	9.12	8.72	10.39	15.74	17.08	11.74	15.18	16.83	10.58
Electricity, Gas & Water	0.93	1.11	0.38	1.22	1.43	0.61	1.16	1.45	0.35
Construction	2.16	2.57	0.82	2.04	2.51	0.61	2.08	2.58	0.68
Trade & Commerce	19.34	20.81	14.67	26.81	26.46	27.86	25.38	25.27	25.69
Transport & Communication	3.84	4.83	0.65	3.57	4.47	0.87	3.29	4.18	0.81
Finance & Business Services	2.21	2.36	1.75	1.88	2.19	0.96	1.87	2.16	1.06
Personal & Community Services	34.54	35.80	30.57	32.35	31.78	34.07	31.45	31.53	31.23
Others	0.63	0.72	0.33	1.98	2.01	1.87	1.91	1.98	1.69
Industry Not Stated	3.04	3.29	2.25	0.05	0.06	0.00	0.05	0.06	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Percentage Number	514610	391844	122766	5773	4326	1447	6075	4473	1603

Source: CBS (1994). Population Census 1991, Urban Tables vol. Table 15.

CBS Urban Population Survey 1996.

Table 10 : Distribution of employed population by average duration of work (in the reference week) and major industry groups for urban areas, Nepal, 1996.

Average duration of work	Total		Agriculture		Non-agriculture		Not stated
	Number	Percentage	Number	Percentage	Number	Percentage	
Both Sexes	5773		14.29		85.66		0.05
Less than 20 hours	525		56.95		43.05		0.00
20-34 hours	698		39.54		60.46		0.00
35-39 hours	353		15.58		84.42		0.00
40-59 hours	2527		5.62		94.26		0.12
60 & over hours	1668		3.06		96.94		0.00
Not stated	2		100.00		0.00		0.00
Male	4326		11.91		88.03		0.06
Less than 20 hours	318		53.46		46.54		0.00
20-34 hours	411		40.15		59.85		0.00
35-39 hours	231		16.88		83.12		0.00
40-59 hours	2017		5.11		94.74		0.15
60 & over hours	1347		2.67		97.33		0.00
Not stated	2		100.00		-		0.00
Female	1447		21.41		78.59		
Less than 20 hours	206		62.62		37.38		0.00
20-34 hours	287		38.68		61.32		0.00
35-39 hours	122		13.11		86.89		0.00
40-59 hours	511		7.63		92.37		0.00
60 & over hours	321		4.67		95.33		0.00
Not stated	-		-		-		0.00

Source: Same as in Table 7.

Table 11 : Distribution of employed population by average duration of work (in the reference year) and major industry groups for urban areas, Nepal, 1991-1991.

Average duration of work	Population Census 1991				Urban Population Survey 1996			
	Total N	Agricu lture	Non- agricul ture	Not stated	Total N	Agricu lture	Non- agricul ture	Not stated
Both sexes	514610	24.07	72.89	3.04	6076	17.59	82.36	0.05
Less than 3 months	6630	30.83	66.14	3.03	136	69.12	30.88	0.00
3-5 months	13384	53.96	44.51	1.53	406	69.70	30.30	0.00
6-7 months	44614	50.32	47.58	2.10	433	52.42	47.58	0.00
8 & over months	445948	20.55	76.33	3.12	5086	9.08	90.86	0.06
Not stated	4034	12.39	77.15	10.46	15	20.00	80.00	0.00
Male	391844	19.67	77.04	3.29	4473	13.91	86.02	0.07
Less than 3 months	4206	24.20	72.50	3.30	72	68.06	31.94	0.00
3-5 months	8347	47.81	50.42	1.77	235	65.11	34.09	0.00
6-7 months	29915	44.92	52.67	2.41	279	46.59	53.41	0.00
8 & over months	346330	16.84	79.82	3.34	3875	7.48	92.44	0.08
Not stated	3046	9.16	80.66	10.18	12	7.69	92.31	0.00
Female	122766	38.12	59.63	2.25	1603	27.09	72.72	0.19
Less than 3 months	2424	42.33	55.11	2.56	64	70.31	29.69	0.00
3-5 months	5037	64.15	34.72	1.13	171	76.61	23.39	0.00
6-7 months	14699	61.31	37.23	1.46	154	62.99	37.01	0.00
8 & over months	99618	33.44	64.23	2.33	1211	14.20	85.80	0.00
Not stated	988	22.37	66.29	11.34	3	33.33	66.67	0.00

Source: Same as in Table 4.

7. Employment Status

The level of economic development of a country is reflected in the distribution pattern of population by their employment status. The lower proportion of own account workers and unpaid family workers as well as higher proportion employee indicates the characteristics of economic development (CBS, 1995). Remarkable change is not observed in the percentage of

own account worker among 1991 and 1996 in usual activity status. But the percentage of unpaid family worker was higher in 1996 than in 1991. It was mainly caused by increment in female percentage of this group. Whereas a slight decrement in the percentage of female in own account workers was observed during the period 1991-1996. Similarly, a decline was observed in both male and female of employee category. But, the percentage of employer in both male and female increased in the survey of 1996. These facts are discernible in Table 12

Table 12 : Percentage distribution of economically active population by employment status and sex for urban areas, Nepal, 1991-1996.

Employment Status	Urban Population Survey 1996			Population Census 1991		
	Total	Male	Female	Total	Male	Female
Employer	3.58	4.11	2.10	1.07	1.17	0.76
Employee	50.99	53.57	43.77	54.93	57.83	45.68
Own Account Worker	41.71	40.37	45.46	41.43	38.87	49.60
Unpaid Family Worker	3.72	1.95	8.68	1.72	1.29	3.08
Not Stated	-	-	-	0.85	0.84	0.88
Total Percentage	100.00	100.00	100.00	100.00	100.00	100.00
Number	6079	4476	1603	514610	391844	122766

Source: CBS (1994). Population Census 1991, urban tables vol. II, Table 16.

CBS, Urban Population Survey 1996.

8. Reason for Economically not being Active

In the case of usual activity status, student was the major reason for not being economically active in the reference year and it occupied 42.41 percent. As in current activity, female inactive population reported that household activities were the main reason for them and student was only the second reason. But, student was the main reason for male inactive population.

Table 13 : Percentage distribution of economically not active population by reason and sex for urban areas, Nepal, 1996.

Reason	Both Sexes	Male	Female
Home-Maker	39.74	11.12	56.65
Student	42.41	65.40	28.83
Aged	7.72	8.70	7.14
Physical/Mental Handicap.	1.69	2.38	1.28
Job Seekers	6.22	8.90	4.63
Others	2.22	3.50	1.47
Total	100.00	100.00	100.00
%			
N	8544	3173	5371

Source: CBS, Urban Population Survey 1996.

9. Labour Force Status

It was observed in the survey result that 41.73 percent of usually employed population had reported their employment status as own account worker (Table 12). In such a situation, it is hard to obtain the picture of unemployment and it will not be expected to be very high (Guru Gharana, 1997). But high proportion of employed labour force was under-employed. The table 14 shows 15.01 percent unemployment rate in urban areas of the country. This high percentage of unemployment rate is mainly contributed by the high rate of female unemployment which is the expected pattern. Such percentage of unemployment will be higher with urban areas than in the rural areas. Again, unemployment rate might be influence by seasonal variation of employment opportunities available in the economy. Females participation in labour force is very low and it is only 30.94 percent. Whereas it is 58.47 percent for male that is nearly double compared to female. The 1991 Population Census data reveals that only one-fifth of females are gainfully active in the urban Nepal. It is mainly attributed to most of females in the urban areas are house-wives without contributing any gainful activities. The picture may not be true in the rural areas where agriculture is the predominant sector and females generally have dual activities: household chore as well as agricultural work/cottage industry resulting more females active in the rural than in the urban areas. Besides these, identifying a labour among those women under such situation as prevailed in the urban areas, is very difficult and complicated. For example, if she is asked, "Did you seek a job in the last week ?", response will be mostly

"No". On the other hand if she is asked, "Do you like to work if available?", response will be very much affirmative. But it is very difficult to conform she will really work if available. So this type of identifying tool may not be appropriate to use. However in this analysis only those who are seeking job are included in the labour force category. This is the main reason which pull down the female labour force participation rate in the urban areas to as low as 31 percent.

Table 14 : Percentage distribution of population aged 10 years and above by labour force status and sex for urban areas, Nepal, 1996.

Labour force status	Both Sexes	Male	Female
Employed	38.34	55.62	19.48
Laid Off	0.17	0.08	0.27
Unemployed	6.80	2.77	11.19
Total labour force	45.31	58.47	30.94
Not in labour force	54.69	41.52	69.06
Unemployment rate	15.01	4.74	36.17

Source: CBS, Urban Population Survey 1996.

Table 15 refers to the percentage distribution of unemployed population by sex in 1996 in reference week. The age group 15-39 years is the most active part of human life and the percentage of unemployment was the highest in this group. So available human resources are yet to be fully utilised for economic development of the country. It is noted that 4.78 percent unemployment was observed even in age 60 and above years. In the productive age of human life, i.e., age 15-59 years, the unemployed population was 7.18 percent and it was remarkably higher for female than male. The female unemployment was observed to be higher than the male in all age groups. Among female population, the highest percentage of unemployed was in the age group 40-59 years, i.e., at the end of reproductive age. But, it was the lowest percentage in the case of male in this age group. It is noted that the highest percentage of unemployed was seen in the age group 10-14 years among male.

According to gainful employment approach, job seekers were regarded as economically not active and the percentage of it was 6.22 in 1996. The percentage of it was higher for male than female (Table 13).

Table 15 : Percentage distribution of unemployed population (in one week reference period) by age groups and sex for urban areas, Nepal, 1996.

Age group	Both Sexes	Male	Female
Total	6.80	2.77	11.19
10-14 Years	5.70	4.75	6.87
15-39 Years	7.30	2.81	12.03
40-59 Years	6.77	1.21	13.40
60 & above Yrs.	4.78	2.50	7.19
15-59 Years	7.18	2.42	12.33

Source: CBS, Urban Population Survey 1996.

10. Reason for not in Labour Force

Reasons not being in the current labour force are presented in Table 16. In a week reference period, home-maker and student were the major causes of not being in the labour force, i.e., not employed or not actively seeking job. The highest percentage of these female populations was concentrated in home-maker category. It is obvious that female will be mostly engaged in household activities due to socio-cultural factors. Student was the major reason for not being in the labour force for male whereas it was only the second reason for female population. So, female school enrolment might be still low even in urban Nepal.

Table 16 : Percentage of population who were not in labour force by sex for urban areas, Nepal, 1991.

Reason	Both Sexes	Male	Female
Home-Maker	44.20	13.86	61.35
Student	43.59	69.71	28.82
Aged	7.74	9.25	6.89
Physical/Mental Handicap.	1.95	2.69	1.53
Others	2.52	4.50	1.41
Total %	100.00	100.00	100.00
N	8279	2990	5289

Source: CBS, Urban Population Survey 1996.

11. Summary

The overall economic participation rate in gainfully employed or usual activity status was slightly higher in the survey result than the population census 1991. It might be contributed by the remarkable increment in female participation rate in the survey. The survey had also collected information on current status of economic activity, i.e., one week reference and the participation rate for this followed similar pattern as in a year reference period. But the level of participation rate at current activity status was lower than usual activity status and 1991 census.

In the current activity status, about 27 percent of employed population were under-employed. The proportion of under-employment was higher for female than male. In the case of one year reference period, most of the employed population worked for eight months and over in the survey and about 16 percent of population had worked for less than eight months. In current activity status, the percentage of under-employed population whose average duration of work was less than eight months was observed higher in female than male.

As far as the distribution of employed population by occupation is concerned, the production sector constituted the highest percentage in the case of male whereas higher percentage of female was engaged in agriculture. It is noted that a remarkable increment was seen in sales as well as clerical occupation in the survey compared to 1991 census.

The proportion of female unpaid family worker remarkably increased in the survey result compared to the 1991 census. Beside this, little or no changes were found in the distribution of employed population by employment status during 1991-1996.

The survey showed that the percentage of female unemployed was higher than male and it was found to be the highest in age group 40-59 years that is the end of reproductive age. On the contrary, the percentage of female job seekers was lower than male during the reference year. Home-maker and student were the major causes of not being economically active and reasons for not being in the labour force.

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CHAPTER V

Educational Status

1991 - Bishnu Dass Singh Dangol

Age Group	Male	Female	Total	Male	Female	Total
0-9	82.8	78.7	80.8	80.8	77.9	79.3
10-14	87.4	82.8	85.1	82.8	78.2	80.5

Education is a basic requirement of the people for social development. One can gain knowledge and skill and make himself/herself fit in a changing society through education. More-over education enhances access to information which may guide him or her to perform various activities in daily life and work with required changes in life style. Education also indicates quality of life in a country.

1. Literacy

UNESCO in 1965 has given the concept of functional literacy, "defining a person to be functionally literate if he or she could read and write enough to be effective in the normal activities of life". Its measurement is based on the qualitative approach rather than quantitative approach. It intends to measure knowledge and skill use of education. Measurement of the extent of knowledge and skills is a time consuming as well as difficult exercise. Censuses and surveys so far conducted have not yet aimed to measure literacy by that approach. However ability to read and write has been recognised as basic measure in defining a person literate in this study as adopted in the earlier censuses and surveys.

**Table 1 : Proportion of Literate Person by Age and Sex, Nepal, 1991 & 1996
(Urban Areas Only)**

Age Group	1996			1991		
	Male	Female	Total	Male	Female	Total
6 - 9	85.8	78.2	82.1	77.9	69.6	73.9
10 - 14	93.4	87.8	90.8	88.0	78.2	83.4
15 - 19	91.8	85.6	88.8	86.4	71.8	79.4
20 - 24	90.4	71.9	81.1	85.1	62.1	73.8
25 - 29	87.2	65.5	75.9	80.3	52.6	65.7
30 - 34	84.3	55.3	70.3	77.8	46.8	61.1
35 - 39	83.4	52.7	69.8	74.0	41.6	57.0
40 - 44	84.4	45.5	67.2	71.4	33.8	51.0
45 - 49	76.1	41.3	60.2	67.5	29.2	50.2
50 - 54	74.8	26.1	52.4	61.7	23.6	43.9
55 - 59	72.2	24.5	49.3	57.8	19.6	40.1
60+	59.5	17.2	37.8	51.0	14.3	32.4
Total	84.9	63.2	74.5	78.0	54.8	66.9

Table 1 presents literacy status classified by age and sex. The overall literacy rate indicates that about 75 out of 100 people (about 85 males out of 100 and 63 females out of 100) are literate in 1996 whereas the percentage was about 67 for both, 78 for males and 55 for females in 1991. Age - specific literacy rates reveal that in general more people are literate among the young generation compared to that among the old generation. But less people are literate among the people aged 6-9 compared to that of 10-14 and 15-19. However it can be justified that the people of younger age particularly 6 and 7 years have still time to get education as they grow. They are expected to be educated by the time 9 years of age. Total literacy rate and age-group wise literacy rates indicate that the rate is consistently high for males than for females. This pattern is true in 1996 as well as in 1991. However the literacy gap between males and females is getting gradually narrowed over the years. For example the gap between males and female was 23.2 percentage points in 1991, but only 21.7 in 1996.

2. Level of Attainment

Defining a person as literate does not reflect his or her educational attainment. Literates include those person who have been literate without undergoing any formal schooling and also those who have completed different levels of formal education. Hence level of educational attainment outlines the quality of literate person. Table 2 presents the distribution of population aged 6 years and above by level of education and by age/sex.

Table 2 : Distribution of Literate-Person by Level of Education Attended by Sex, Nepal, 1991 & 1996 (Urban Areas Only)

	Primary Level		Secondary Level		S.L.C. and Above Level	
	1996	1991	1996	1991	1996	1991
Male	27.1	27.3	28.3	27.7	33.5	27.9
Female	30.1	32.4	30.8	28.7	26.0	20.1
Total	28.3	29.3	29.3	28.1	30.5	24.9

Analysing the data categorically as mentioned above it is found more proportion of population (about 31 percent) have completed either S.L.C. or above in 1996. The proportion of population who have completed secondary level and primary level are about 29 percent and 28 percent respectively. In 1991, the situation was upside down : more population had completed primary level (29 %) as compared to those who completed the secondary level and S.L.C. or above. This is one indication of qualitative improvement of literates over the years in the urban area. Gender diaggregate data show that there is no substantial difference in proportion among the primary level completers as well as secondary level completers. But the difference is substantial among the S.L.C. or above level completers. For example 26 females out of 100 female as against 34 males out of 100 males have completed S.L.C. or above level education in 1996. This finding is consistently observed in 1991 and all age groups of 1996 (see table 3).

Table 3 : Literate Population 6 Years of Age and Over by Educational Attainment, Age & Sex, Nepal, 1996 (Urban Areas Only)

Age Group	No. Schooling						S.I.C. & Above						Total					
	Primary (1-5)		Secondary		T		F		M		T		F		M		T	
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
6-9	22.5	20.0	20.6	77.0	79.6	79.0	0.5	0.4	0.4				100	(913)	100	(744)	100	(1657)
10-14	1.5	2.5	2.1	64.6	58.4	61.8	33.9	39.1	36.1				100	(1086)	100	(839)	100	(1925)
15-19	1.3	4.0	2.6	11.8	13.5	12.6	60.4	60.7	60.6	26.5	21.8	24.2	100	(1016)	100	(880)	100	(1896)
20-24	4.6	8.2	5.6	9.8	12.3	10.9	29.6	31.1	30.3	56.0	48.4	53.2	100	(974)	100	(788)	100	(1762)
25-29	5.7	10.6	7.9	10.4	13.1	11.6	27.6	26.5	27.1	56.3	49.8	53.4	100	(774)	100	(633)	100	(1407)
30-34	8.7	14.4	10.8	12.3	13.6	12.8	30.0	23.7	27.6	49.0	48.3	48.8	100	(649)	100	(394)	100	(1043)
35-39	11.4	20.3	14.4	11.6	15.7	13.1	20.4	26.7	22.5	56.6	37.3	50.0	100	(633)	100	(316)	100	(949)
40-44	14.0	28.4	18.3	11.7	13.0	12.1	25.6	30.1	26.9	48.7	28.5	42.7	100	(429)	100	(182)	100	(611)
45-49	18.3	30.5	22.1	12.2	15.0	13.1	24.5	16.6	22.1	45.0	37.9	42.7	100	(306)	100	(138)	100	(444)
50-54	28.0	53.8	34.0	12.9	9.1	12.0	17.0	22.0	18.1	42.1	15.1	35.9	100	(253)	100	(76)	100	(329)
55-59	32.9	42.4	35.2	13.3	11.3	12.8	17.0	32.4	20.8	36.8	13.9	31.2	100	(154)	100	(50)	100	(204)
60+	43.8	70.6	53.4	12.9	11.5	12.5	18.5	12.5	17.0	24.8	5.4	17.0	100	(343)	100	(104)	100	(447)
Total	11.1	13.1	11.9	27.1	30.1	28.3	28.3	30.8	29.3	33.5	26.0	30.5	(7530)	(5144)	(12674)			

3. Literate Population by Current Status of Schooling

Table 4 present status of currently attending school/campus in the time of the survey. Data reveal that lower proportion of literate population currently attending school at older age and it is much more lower for females than for males showing females give up their schooling earlier as compared to males.

Table 4 : Proportion of Literate Population Currently Attending School, Nepal, 1996 (Urban Areas Only)

Age	Both Sexes	Male	Female	Total
6		73.4	84.5	78.7
7		79.0	84.2	81.4
8		90.0	88.0	88.9
9		86.9	89.1	87.9
10		93.0	94.1	93.1
11		96.2	90.5	94.0
12		92.7	89.7	91.5
13		86.6	87.6	87.4
14		90.6	91.8	91.2
15		84.5	85.4	84.7
16		81.6	71.1	76.8
17		69.8	65.1	67.7
18		66.4	61.8	64.4
19		66.8	55.4	61.6
20		55.9	38.8	47.7
...	
...	
30		12.4	5.5	9.7
Total (6-30)		63.5	57.8	61.0

The proportion of literates who are currently attending schools peaks at 96 % at age 11 in the case of males and 94 % at age 10 in the case of females. Thereafter the proportion gradually decreases by the age. This substantial decline is noted from 81.6 % at the age of 16 to 69.8 % at the age 17 for males and similarly from 85.4 % at the age 15 to 71.1 % at the age 16 for females. However it is to be noted that the overall percentage point decline is rapid for females than for males.

4. Reasons

Social, economic condition and family background varies widely among households. Accordingly reasons for not currently attending school could be different. The reasons are presented in table 5. The data shows that slightly more than half of male students and two third of female students mentioned household work as their major reason. This pattern can not be expected in the urban areas as it is highly associated with characteristics of rural areas. Excluding the household work, difficult to study emerges as the second reason which accounts for about 17 % for males and 8 % for females. However it is not known why they feel difficult to study, whether it is due to busy in the household work or education system is not accessible to the student. Monetary constraint followed by acquisition of desired level are the third and fourth reasons of not currently attending school.

Table 5 : Literate Population 6 to 30 Years of Age by Reasons of Not Currently Attending School/Campus and Sex, Nepal, 1996 (Urban Areas Only)

Reasons	Male	Female	Both
Desired Level reached	9.8	4.9	7.4
Busy in household work	52.1	75.1	63.2
Monetary constraint	15.2	5.5	10.6
Difficult to study	16.5	7.6	12.1
No access to school/campus	0.5	0.2	0.4
Others	5.9	6.7	6.3
Total	100	100	100
	(1448)	(1300)	(2748)

5. Conclusion

Education is a basic need to the people for social and economic development. In spite of growing increase of public institutes to facilitate schooling, there is an emerging private sector particularly in school education, which is very effective and active in the urban areas. As a result the increase in the proportion of literate population in the urban areas is very much encouragingly noted over the years. The attended levels, which is also a proxy measure of quality of literate population, indicates that higher proportion of literate population aged 20 years and above have completed either S.L.C. or above with compared to those who have completed primary level and secondary levels respectively. Among the literate population aged 6-19, most of them ranging the percentage from 66 at the older ages to about 80 at the younger ages have still attending school and they will acquire their best level of education during the years of their lives. It is very interesting to note even in urban areas that most of the peoples who are not attending schools, report " busy in their household work " as the major reason of not attending schools. Less than one percent of the people mentions " no access to schooling institutes " as the reason.

CHAPTER VI

Urban Migration

- Badri P. Niroula

1. Introduction

Population mobility has been one of the major concern of planners and policy makers. Shifting of population from place to place over time affects both the population they leave and population they enter. However, the magnitude of effects may differ depending on size and personal attributes of movers. Population mobility is not a new phenomena in Nepal. However, the concern gathered momentum when reports of last three censuses revealed persistently increasing number of people born in the Mountain and the Hill regions of the country residing in the Tarai and in Urban centers (CBS, 1987; CBS, 1995). Urban population grew at the rate of 5.9 percent per annum during 1980s. Rapidly growing number of people in the capital and peripheral cities of Kathmandu and other growing urban centers, increasing population pressure on inadequately planned infrastructure and services, deteriorating environment and unprecedentedly increasing level of pollution has been the subject of major concern in the past few years. Even then there is little attention paid to gather statistics and measure multi-dimensional impact of migration. Precise information is lacking to measure the size, impact and types of migration and nature of flow. No doubt there are number of studies conducted in the past, largely based on census information, mainly concentrated to assess the magnitude and direction of flow of migrants across ecological regions (New Era, 1981; Conway, 1981; NCP, 1984; CBS, 1987; Gurung, 1989; CBS, 1995); paradoxically, little is known about quantum and nature of rural-urban flow. The survey of 1986/87 conducted by the Central Bureau of Statistics (CBS) estimated that lifetime migrants, internal, in the urban area were 28 per cent of the urban native born; among those who moved into the urban areas, over 80 per cent were from rural areas (CBS, 1988; pp 1-2). Realising the importance of the issue, the 1991 population census incorporated a question to assess rural-urban migration, but, the census being a massive operation, could not succeed in this attempt.

Because heavy rural/urban migration is associated with a host of urban and rural problems, there had been growing concern about the issue and the interest in collecting information that would help in devising realistic policy and programs to manage and control migration flows. An endeavor to this direction was the Demographic Sample Survey, 1986/87 conducted by CBS. Results of the survey might have been useful to chalkout population policy in the 8th plan (1992-97). To understand population dynamics and its redistribution, Central Department of Population Studies, Tribhuvan

University; conducted similar survey of Migration, Employment, Birth, Death and Contraception (MEBDC) in 1996; however, final report of the survey is yet to be published. Subsequently, the 1996 Urban Population Survey was conducted by the CBS. The Survey collected information on household utilities, fertility, mortality, migration and labour force aspects of urban population. This paper attempts to analyse migration data collected by CBS in the 1996 survey.

2. Migration Policy

Population policy stated in the 5th five-year plan (1975-80) incorporated very general objective to regulate internal and international migration to maintain proper regional balance in population distribution. The subsequent plans introduced policy in this respect to manage and control population migration for balanced development of ecological and urban-rural regions. The programs were very general to support population policies, for example - to collect data to know magnitude and causes of migration, provide job opportunity in the hill region, issue citizenship certificate and strengthen vital registration system. In the absence of effective programs and supportive measures, regulating migration process seems to be a difficult task.

3. Literature Review

The migration phenomena has been viewed in many ways at different time. It is thought as a catalyst to reduce population and labour pressure at the place of origin and supply labour at the destination (Lewis, 1954). The process is considered demographic, because of its selectivity with respect to age, sex, education, marriage (UN, 1970; Zelinsky, 1971) etc. Most of the studies focus to explain population mobility by means of explanatory variables such as urbanization, income difference, education, employment, distance, population size etc.

In Nepal, since the last four decades or so, with the implementation of controlling measures for major epidemic diseases such as malaria, smallpox etc., improvement and expansion of health services, mortality declined persistently. However, there are sign of declining trend in fertility it remained at high level, use of contraceptive measures could not improve to a marked extent (Pradhan et al., 1997), contributing to a high rate of population growth. Employment opportunity available, particularly in the rural areas, is more often inadequate to absorb increased labour force and thus influences migration. Internal mobility of population seems to be increasing with the increase of urbanization associated with developmental activities but information pertaining to rural-Urban mobility are very limited.

Migration data, in Nepal, has been generated from both censuses and surveys since four decades or so. These data are largely analysed to measure internal mobility, its volume and direction of flow at the regional level (New ERA, 1981; NCP, 1984; CBS, 1987; Gurung, 1989; CBS, 1995). Apart from census data some studies were conducted to crystalize knowledge on rural-urban flow volume and characteristics of migrants (Thapa and Tiwari, 1977; Shrestha et al., 1984; CBS, 1988; Sharma, 1989). However, information explicitly dealing on rural-urban mobility, causes and consequence of migration is lacking in a great deal. There are number of pocket studies too but they fail to capture total migration situation in the country. The MEBDC Survey of 1996, appears to be a comprehensive survey for studying population dynamics of Nepal, including computation of population redistribution, its cause and possible effect at the origin and destination. For details of studies on migration in Nepal see K.C. Bal Kumar, 1995 (UN, 1995 pp. 68-69)

4. Definition and Measurement

There are number of ways for collecting information to measure population mobility. To measure the flow, usually recommended questions that are asked to individuals are : a. Where is your place of birth, b. where is your place of prior residence, c. where is the place of residence 'n' year(s) ago and d. how long have you been living at this place, i.e. the place of enumeration. The question on place of birth is relatively easy to administer and responses are expected to be more accurate, however, it provides information only for one move over the lifetime. The advantages and limitations of the information collected by administering these questions are described in literatures (UN Manual VI, Shyrock and Siegel, 1970). Thus, in this survey, a simple question on place of birth was asked to distinguish migrants from non-migrant population in urban areas. That is an individual whose place of birth was other than the area of enumerated Municipality was termed as "Lifetime Migrant" while others, whose place of birth was the Municipality of enumeration, were "Non-migrants". Accordingly, among 19,708 individuals enumerated in the survey 40.6 per cent (7,999 person) were lifetime migrants.

However, the measures are very crude. Attempt is made to examine proportion of lifetime migrants among urban residents, demographic and social characteristics of migrants, reason for migration, direction of flow and other features allowed by the survey data.

5. Data Quality and Limitation

The 1996 Urban Population Survey collected information from a nationally representative urban sample of 3,980 households selected from 100 clusters of 36 Municipal areas, on an average 40

households were enumerated from each cluster. In total, 19,708 individuals were interviewed in the survey and of them 9,433 were females (for detail see chapter one). To distinguish migrants from non-migrant population, and to make an assessment of size and study characteristics of migrants, the survey, in its Household Schedule, included a conventional question - where is your place of birth? and response was marked on either of the two categories - 1. Same Municipality or 2. Else where. If the place of birth was else where, i.e. other than the municipality of enumeration, further question was - what was the reason for migrating to this place? If the reason for migration was other than "marital relation" or "dependent" among eight categories, schedule no. 5 had to be completed for all persons, whose area of birth was other than the area of the municipality of enumeration. Schedule 5 consists of 11 major questions related to characteristics of individuals enquired in that schedule. Therefore, group of individuals recorded in the schedule 5 of the survey may be said to be specially selected group for migration study, characteristics of such a group would more likely be different from those migrants in general. Characteristics of similarly conditioned group of migrants was also studied by DSS, 1986/87; but enquiry made in DSS was for the time of first move. Enquiry in schedule 5 was mostly related to the time of entry to the new place, the urban area, which could be the first move for some migrants. These distinction will allow us for comparing, wherever possible, characteristic of two groups of migrants at two points of time.

For enumeration purpose, the survey used census definition of usual place of residence to enumerate each household and individual in the selected cluster. This definition is most likely to omit those who report themselves as temporary resident and, hence, most probably under enumerate migrants in the urban areas. The quality of migration data could be improved by devising inquiry to include both usual and temporary residents of urban area. Further, the survey did not enquire about out-flow of population from enumerated households of municipal areas limiting the analysis for rural-urban and urban-urban flow only.

6. Discussion

Place of Birth

As noted in above, the survey enumerated 19,708 persons (9 were place of birth unknown) composed of 10,275 males and 9,433 females from 3,980 households distributed in 36 Municipalities existing at the time of the survey. Findings of the survey show that birth place was reported for almost all (99.95%) persons and indicated that among every five residents of municipality two persons are likely to be born outside of municipal area (born else where) and known as lifetime migrants. That means, in urban population, 40.6 per cent are lifetime migrants and

59.4 per cent are born in municipal area, the natives. Since, the characteristics of urban areas at different places markedly differ, proportion of migrants could be higher as well as characteristics of migrants in the capital and other major cities. Migrants were female dominated (4,292 females; 3,707 males) while there was predominance of males among non-migrants (5,136 females; 6,564 males), i.e. sex ratio (127.8) of non-migrant population was much higher than the ratio (86.3) of migrant population. The gap between sex ratio of two groups was very wide. High proportion of females among migrants was due to marriage-related migration. One among reasons of high sex ratio of non-migrant population may be due to misreporting of birth place by males. The sex composition and place of birth of enumerated population are presented in Table 6.1.

Table 6.1 : Population in Municipality by Place of Birth and Sex, 1996

Place of Birth	Male	Female	Total	Sex Ratio
Same Municipality	63.89	54.45	59.37	127.8
elsewhere	36.07	45.50	40.59	86.3
Not Stated	0.04	0.05	0.05	80.0
Total %	100.00	100.00	100.00	—
N	10,275	9,433	19,708	108.9

A review of findings of the past indicate considerable increase in size of migration in urban areas over time. Lifetime internal migrants to urban areas constituted 16.3 and 17.2 per cent in 1981 and 1991 respectively (K. C. 1995, p. 90).

If we compute rate of lifetime migration as number of lifetime migrants per 100 Urban born population, then 68.4 per cent are lifetime migrants of the urban born population, rate for females and males being 83.6 and 56.4 per cent, respectively. But, if rate is computed in terms of total urban residents of the country, there were 40.6 per cent lifetime migrants, native and foreign born, proportion of foreign born being very small (Table 6.4). Among lifetime migrants, 54 percents were females and 46 per cent were males. Urban migration rate estimated by the 1996 MEBDC Survey was 32 per cent; females and males being 37.4 and 26.1 per cent respectively (MEBDC Survey, 1996, Draft Report, P. 140).

Age-Sex Composition

It is widely observed that migrants are selective, they are more likely to be young adult males and educated compared to population they leave at the origin. Domination of females among lifetime migrants is understandable and reflected in the classification of reasons for migration (Table 6.3).

Table 6.2: Population in Municipality by Place of Birth, Sex and Age at the time of Enumeration, 1996.

Age Group	Place of birth					
	Same Municipality			Elsewhere		
	Male	Female	Total	Male	Female	Total
0-4	15.62	18.00	16.66	2.42	2.85	2.63
5-9	17.27	19.67	18.32	5.91	4.29	5.04
10-14	13.42	14.23	13.77	7.62	5.27	6.36
15-19	10.89	12.94	11.79	10.59	8.44	9.43
20-24	9.15	9.41	9.26	12.89	14.22	13.60
25-29	7.41	6.39	6.96	10.84	14.87	13.00
30-34	5.56	3.91	4.84	10.93	11.93	11.47
35-39	5.56	3.76	4.77	10.63	9.45	10.00
40-44	3.81	2.06	3.04	6.96	6.88	6.92
45-49	2.83	1.78	2.37	5.85	5.64	5.74
50-54	2.32	1.80	2.09	5.00	4.63	4.80
55-59	1.64	1.42	1.54	2.82	2.96	2.89
60-64	1.63	1.65	1.64	2.89	3.28	3.10
65 and +	2.88	2.97	2.92	4.66	5.29	5.00
Total %	100.00	100.00	100.00	100.00	100.00	100.00
N	6,564	5,136	11,700	3,707	4,292	7,999

Fig 1. Non-Migrant Urban Population by Sex and Age Groups, Nepal, 1996

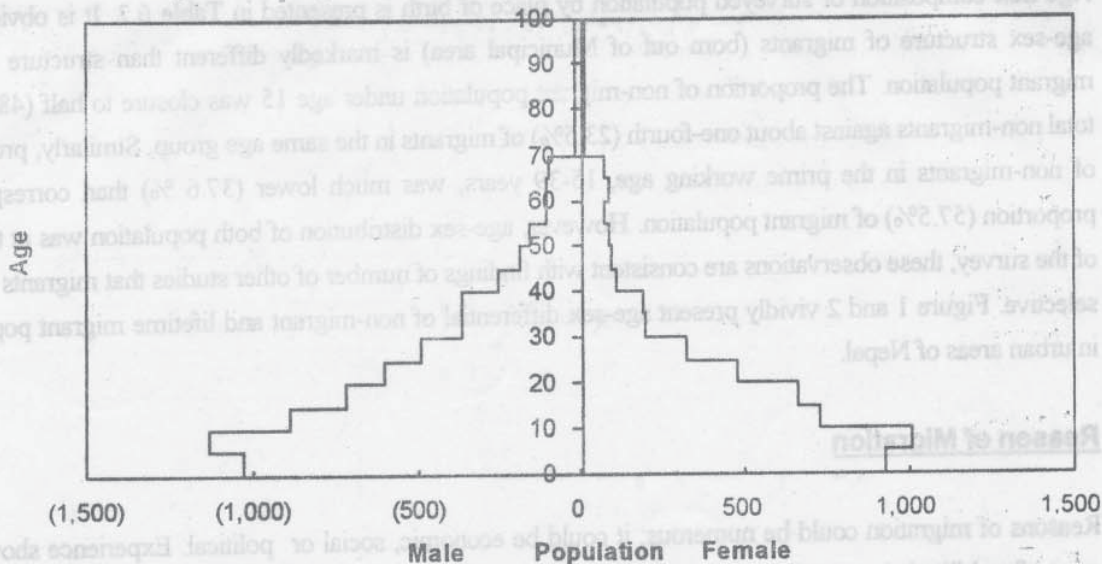
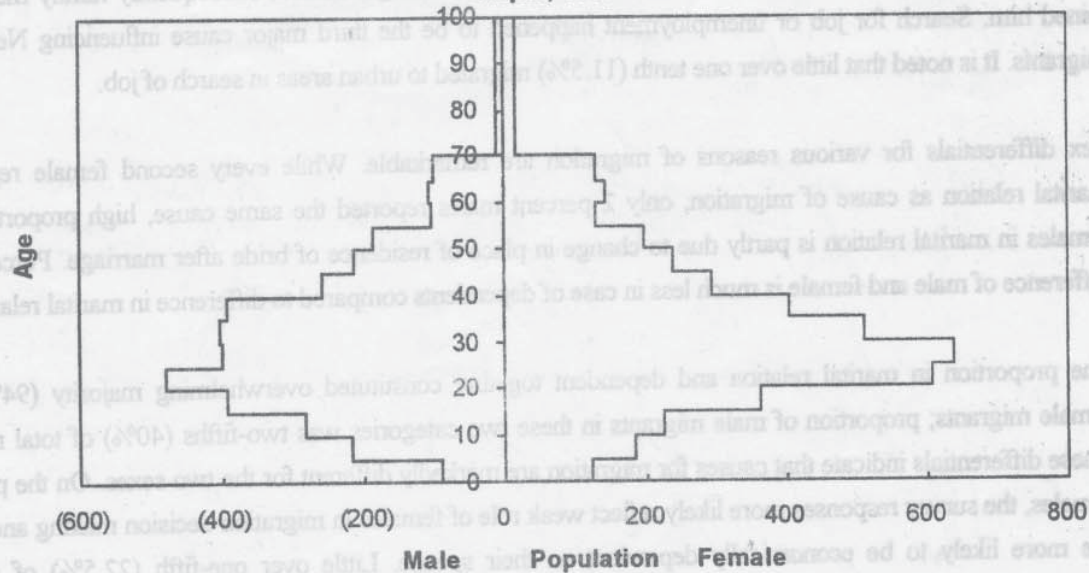


Fig. 2 Lifetime Migrant in the Urban Population by Sex and Age Groups, Nepal, 1996



Age-Sex composition of surveyed population by place of birth is presented in Table 6.2. It is obvious that age-sex structure of migrants (born out of Municipal area) is markedly different than structure of non-migrant population. The proportion of non-migrant population under age 15 was closure to half (48.7%) of total non-migrants against about one-fourth (23.5%) of migrants in the same age group. Similarly, proportion of non-migrants in the prime working age, 15-39 years, was much lower (37.6 %) than corresponding proportion (57.5%) of migrant population. However, age-sex distribution of both population was at the time of the survey, these observations are consistent with findings of number of other studies that migrants are age selective. Figure 1 and 2 vividly present age-sex differential of non-migrant and lifetime migrant population in urban areas of Nepal.

Reason of Migration

Reasons of migration could be numerous; it could be economic, social or political. Experience shows that most of mobility is largely due to economic reasons. If people are not satisfied at the place they live, they are more prone to move to a new place. Reported reasons of migration also reflect influence of push and pull factors. Among urban migrants showing different reasons of migration (Table 6.3), dependents accounted largest proportion (41%) followed by proportion reporting marital relation (28%). These two groups constituted 69 percent and may largely reflect family type of move. However, such a speculation is very weak unless confirmed by other information, such as age, duration of residence. It may be otherwise that an adult member of the household moved first to a new place and got settled, subsequently family members joined him. Search for job or unemployment happened to be the third major cause influencing Nepalese migrants. It is noted that little over one tenth (11.5%) migrated to urban areas in search of job.

Sex differentials for various reasons of migration are remarkable. While every second female reported marital relation as cause of migration, only 2 percent males reported the same cause, high proportion of females in marital relation is partly due to change in place of residence of bride after marriage. Percentage difference of male and female is much less in case of dependents compared to difference in marital relation.

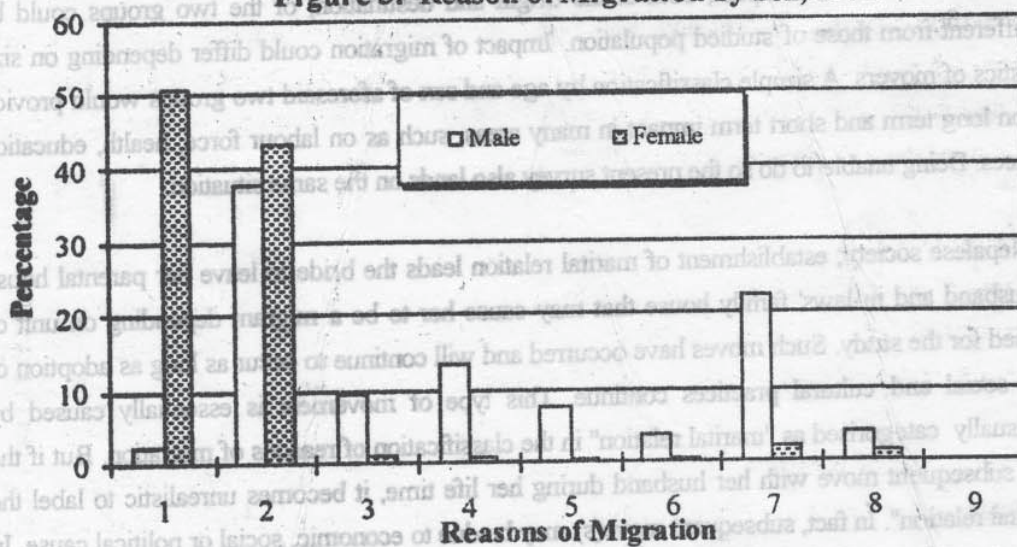
The proportion in marital relation and dependent together constituted overwhelming majority (94%) of female migrants; proportion of male migrants in these two categories was two-fifths (40%) of total males. These differentials indicate that causes for migration are markedly different for the two sexes. On the part of females, the survey responses more likely reflect weak role of females in migration decision making and they are more likely to be economically dependent on their spouse. Little over one-fifth (22.5%) of males

migrated to urban areas for search of job (Table 6.3). Sex differentials of migration could be distinctly observed in the Figure 3.

Table 6.3 : Lifetime Migrants by Reasons of Migration to the Place (urban) of Residence and Sex, 1996

Reasons of Migration	Male	Female	Total
1. Marriage	2.23	50.76	28.28
2. Dependent	37.71	43.22	40.66
3. Study	9.34	1.03	4.88
4. Service/Job	13.17	0.75	6.51
5. Business	7.39	0.25	3.56
6. Agriculture	3.50	0.48	1.88
7. For search of job	22.48	2.09	1.54
8. Other reasons	4.18	1.33	.65
9. Not Stated	0.00	0.08	.04
Total %	100.00	100.00	100.00
N	3,707	4,292	7,999

Figure 3. Reason of Migration by Sex, 1996



To study nature of flow and characteristics of lifetime migrants the interview was continued on to the individual schedule on the basis of reported reason for migration in the household schedule of the survey. That is, who reported marital relation or dependent as reason of migration, their interview was terminated. Others were interviewed in the individual schedule 5, which attempted to make further investigation about socioeconomic characteristics of migrants. Unfortunately, overwhelming majority (94 %) of females enumerated in the survey reported marital relation and dependent as reason of their migration. Proportion of males in the corresponding group was relatively low (40 % only) compared to females. The percentage of both sexes in the two groups combined was 69; that is over two thirds of migrants reported dependent and marital relation as cause of migration. Exclusion of migrants, reporting either of the two reason, from further inquiry has limited our knowledge on vivid aspects of female migration.

Weakness of migration surveys conducted in Nepal in the past lies on the fact that they usually fail to make proper enquiry on reasons of migration and leave majority of migrants aside for further study on the ground that reporter of "marital relation" and "dependent" as reason of their migration are not very important for migration analysis. For a frequent mover reason for migration could change from time to time. Married women often report "marital relation" as reason of migration which may not always be the case. Similarly, economically active women are likely to report "dependent" as the reason of migration. Past experience also suggest that large proportion of, mostly females, internal migrants in Nepal report in these two categories, among classified reasons of migration. And these two groups are more often excluded from further enquiry but in fact overwhelming majority of females reported these two regions as region of their migration. Social and economic characteristics and impact, both at the origin and destination, of the two groups could be significantly different from those of studied population. Impact of migration could differ depending on size and characteristics of movers. A simple classification by age and sex of aforesaid two groups would provide much insight on long term and short term impact in many areas, such as on labour force, health, education and other services. Being unable to do so the present survey also lands on the same situation.

In almost all Nepalese society, establishment of marital relation leads the bride to leave her parental house and join her husband and in-laws' family house that may cause her to be a migrant depending on unit of migration defined for the study. Such moves have occurred and will continue to occur as long as adoption of long observed social and cultural practices continue. This type of movement is essentially caused by marriage and usually categorised as "marital relation" in the classification of reasons of migration. But if the woman makes subsequent move with her husband during her life time, it becomes unrealistic to label the reason as "marital relation". In fact, subsequent move(s) may be due to economic, social or political cause. In migration studies, unless probing is rigorously advanced at the time of survey enquiry, response for reasons of migration, particularly for a currently married woman, would most likely be "marital relation". Similar

reporting was observed in study of the past (CBS, 1988). Due to lack of understanding of survey questions, female migrants may also have reported themselves as dependent, even if they were economically active. Quality of migration data can be improved by making inquiry on stepwise cause of migration.

The point is already raised that exclusion of the two groups from detail study has reduced the value of further analysis; opinion may come up in favor of further analysis of information collected in the schedule 5 stating that those who reported other than marital relation and dependent as reason of migration were the real decision maker for migrating, and hence, further study on them has a valid ground. A careful designing of the survey that makes provision to study both groups is expected to enhance usefulness of survey data.

Migration Stream

One of the main objective of the survey was to estimate proportion of migrants among urban population, its stream and direction of flow. Even though the survey recorded 40.6 per cent (7,999 persons with sex ratio¹ 86.3) lifetime migrants among surveyed population of the urban areas; the size, unfortunately, drops down to 28 per cent (2,252 migrants, both native and foreign born) and then to 25 per cent (2,004 native born only), to study the flow and individual attributes. This is due to truncation of enquiry for those who reported "marital relation" or "dependent" as reason of migration.

Further, among 2,252 lifetime migrants, 89 percent were native born and 11 per cent foreign born of whom almost all (97%) were males; while among the native born migrants, male/female composition was 90 and 10 per cent respectively (Table 6.4). Low proportion of females in the reduced size is obvious because 94 per cent of females were excluded from the purview of extended study. The proportion of male migrants similarly excluded is also considerable (40 per cent) but much lower than that of females. Since the proportion of females in the truncated size is very low, it would be of little value to examine sex differentials of attributes of migrants. As the subsequent analysis is based on reduced size (to one fourth of urban migrants of both sexes) the findings are related to specific group only and less likely to represent migrants in general. In the distribution of reduced sample value of some of the cases are less than 25, results should, therefore, be used very cautiously.

Place of Birth	Total (%)	Male	Female
All Places	40.6	36.3	44.9
Rural	18.7	17.1	20.0
Urban	21.9	19.2	24.9

¹. Number of Males per 100 Female population.

Table 6.4 : Distribution of Lifetime Migrants by Place of Birth and Sex, 1996

Place of Birth	Total (N)	Male	Female	Total(%)
Total	2,252	100.00	100.00	100.00
Native born	2,004	88.23	96.52	88.98
Foreign born	248	11.77	3.48	11.02
Total	2,252	90.93	9.07	100.00
Native born	2,004	90.16	9.84	100.00
Foreign born	248	97.13	2.87	100.00

The migration stream is normally observed from the labour surplus to the labour deficit areas. In developing countries, flow of migrants is generally found from rural to urban areas. Population growth in rural areas are usually higher and employment opportunities are low, agricultural labours are usually underemployed. Hence, surplus of rural labours often migrate to urban areas (Todaro, 1971; 1976). In addition, information about expected destination, presence of relatives, rural/urban wage differences are influential for migration decision. The survey results show that among every 10 lifetime migrants residing in the urban areas, 9 are more likely to be from the rural areas, i.e. 91 per cent of migrants in urban areas were from the rural areas (Table 6.5). Only 9 per cent migrants were from urban to urban.

Table 6.5 : Distribution of Native Born Lifetime Migrants by types of Place of Birth and Sex, 1996

Place of Birth	Total(N)	Male	Female	Total(%)
All Places	2,004	100.00	100.00	100.00
Rural	1,817	90.45	92.63	90.66
Urban	187	9.55	7.37	9.34
All Places	2,004	90.16	9.84	100.00
Rural	1,817	89.94	10.06	100.00
Urban	187	92.23	7.77	100.00

Rural to urban migration constitutes one of the major migration streams in the developing world. Nepalese conditions are not different. Until recently, this process of urbanization was thought to provide a stimulus for

economic development. There is now, however, growing consensus that the transfer of labour from rural to urban areas is outstripping the ability of many developing countries to generate urban employment. Increasing number of migrants from rural to urban areas have produced significant impact on infrastructure, basic needs and environment.

Unless information collected is suitable to put in a form of matrix of origin and destination, it will be difficult to understand the distance of move, from which rural area they moved to which urban destination. General observation is that distance acts as a serious deterrent to migration - perhaps the single most deterrent that migration decreases substantially with increased distance. It is attributed to the fact that distance serves as a proxy for both the transportation and psychic cost of movement as well as for the availability of information. In case of inter-regional migrants, movement was largely from the Hill and Mountain to the near by region of the Tarai and to the nearby urban centers (Niroula, 1995).

Characteristics of Migrants

The study on various characteristics of lifetime migrants at the time of migrating to urban residence is very much limited by truncation of inquiry in the schedule 5. Thus the subsequent analyse is based only on sample of 2,004 (Male 1,807 and Female 197) native born lifetime migrants. Size of foreign born being small (Table 6.4), they are also excluded from the study.

i. Age and Sex Composition

Table 6.6 presents sex and age composition of selected group of native born lifetime migrants at the time of migration to urban areas. It is clearly discernible that migrants are age-sex selective, i.e. large proportion of young age males. It is noted that half of male migrants were between ages 20 to 39, children (under age 15) were very few (2%). Old age (age 60 and above) migrants constituted about one-tenth of the total.

Table 6.6: Distribution of Lifetime Urban Migrants by Age at the Time of Migration and Sex, 1996.

Age Group	Male	Female	Total	(in percent)		
				Male	Female	Total
<15 years	26	21	47	1.44	10.66	2.34
15-19	136	37	173	7.58	18.78	8.67
20-24	243	28	271	13.50	14.21	13.56
25-29	216	14	230	11.95	6.60	11.42
30-34	219	15	234	12.11	7.61	11.67
35-39	250	20	270	13.88	10.15	13.52
40-44	181	16	197	10.01	7.61	9.77
45-49	151	10	161	8.35	5.07	8.03
50-54	124	8	132	6.86	4.06	6.58
55-59	72	5	77	3.98	2.53	3.84
60-64	77	10	87	4.26	5.07	4.34
65 years +	110	15	125	6.08	7.61	6.24
Total	1,807	197	2,004	100.00	100.00	100.00

ii. Duration of Residence

Duration of residence at the current place is an important indicator to measure stability of migrants at the new place of residence. In other words, the principal value of the data is in the information it gives on the timing of the last moves of lifetime migrants. This type of data furnish useful information about the recent migration history of the area.

Table 6.7 presents duration of residence of lifetime migrants at the urban places. Proportion of migrants residing less than one year in the urban area may be used to compute annual rate of migration if migration is evenly distributed over time. The proportion grouped in five years duration indicate that there was gradual increase of flow of migrants to the urban areas in the past decades. Among 2,004 migrants under study, overwhelming majority (90%) of whom were males, 37.6 percent migrated to the urban places during 1990/95, 17.9 percent during 1985/90 and so on. However, reporting error on duration of residence (digital preference, telescoping etc.) cannot be denied; nevertheless, there is a clear indication of increasing trend of lifetime migration from rural to urban areas.

Table 6.7 : Life Time Migrants by Duration of stay at the Place of Residence, Age at the Time of Migration, 1996.

Age Group	Total(N)	< than 1 Year	1 to 5 Years	6 to 10 Years	11 to 15 Years	16 + Years	Total %
Both sexes	2004	6.27	37.57	17.89	12.08	26.18	100.00
< 15 Year	47	32.22	62.91	4.86	0.00	0.00	100.00
15-19	173	18.89	73.85	6.14	1.12	0.00	100.00
20-24	271	8.31	71.31	15.82	2.60	1.95	100.00
25-29	230	7.90	46.02	28.74	10.84	6.51	100.00
30-34	234	3.19	37.36	27.08	22.00	10.30	100.00
35-39	270	4.95	30.49	24.13	16.46	23.97	100.00
40-44	197	2.82	28.05	22.07	13.22	33.83	100.00
45-49	161	1.74	17.16	14.44	13.41	53.24	100.00
50-54	132	2.37	14.11	10.68	16.25	56.60	100.00
55-59	77	1.44	13.65	5.82	22.76	56.33	100.00
60-64	87	3.66	7.96	7.45	5.80	75.13	100.00
65 + Year	125	0.36	6.22	13.16	16.43	63.83	100.00

Migrants are usually selected from young adult groups. As expected, Table 6.7 shows that proportion of migrants increases by age with the increase in duration of residence. In general, large number of migrants tend to move at the prime of their working age. Data presented in Table 6.7 strongly supports the general observation, migrants are larger in number between 20 to 39 age groups compared to numbers in other ages. Number of migrants increases from young age under 15 to age 20 to 24, and then seems to be around the similar level up to age 40; the size declines gradually as the age advances.

Number of urban centers are gradually increasing. Sixteen urban areas in 1971 increased to 23 in 1981 and then to 33 in 1991. There were 36 municipalities at the time of survey in 1996. Including 22 municipal areas recently declared by the government, now there are 58 urban centers in the country. Not only number of urban centers are increasing there has been expansion of area of existing center(s). During 15 years period (1980-95), 13 new municipalities came into existence. In such a growing tendency of urban centers information presented in Table 6.7 that about one fourth (26%) migrants were living in urban areas for more than 16 years, means they moved to current urban places before 1980. It is true that some of the urban areas

of today were not declared as urban at that time, however, those areas could more likely be prosperous and advancing towards urbanization. This means, all migration of the time was not rural-urban, it was partly rural-rural flow and turned out to be rural-urban as the area is declared urban.

DSS 1986/87 indicated that about half of migrants moved to the urban places within 10 years period prior to the survey, and little over one-fourth (28%) migrated during five years period before the survey. Comparison of two sets of data suggests that large number of migrants are recent compared to the past, i.e. rural-urban migration is increasing over time.

iii. Literacy Status and Educational Attainment

Literacy/education is one of the main indicator of exposure to the media of communication. A literate person is more likely to seek information about the place of expected destination and calculates cost/benefits options of migrating and hence may be assumed to take rational decision relative to an illiterate person. Several studies have shown that migrants are better literate /educated compared to those who remain at the origin (Goldstein et al, 1974). Table 6.8 presents literacy status of urban migrants by age at the time of migration.

Table 6.8 : Native Born Lifetime Migrants by Literacy Status and Age at the Time of Migration to Urban Places, 1996.

Age Group	Total(N)	Literate	Illiterate	Total (%)
Both Sexes	2004	76.07	23.93	100.00
< 15 Years	47	48.71	51.29	100.00
15-19	173	78.45	21.55	100.00
20-24	271	88.79	11.21	100.00
25-29	230	84.09	15.91	100.00
30-34	234	87.22	12.78	100.00
35-39	270	72.82	27.18	100.00
40-44	197	76.50	23.50	100.00
45-49	161	72.07	27.93	100.00
50-54	132	69.53	30.47	100.00
55-59	77	60.35	39.65	100.00
60-64	87	62.05	37.95	100.00
65 + Years	125	57.89	42.11	100.00

It is apparent that over three-fourths (76%) of lifetime migrants to the urban places were literate at the time of entry. Proportion of literate was highest among those at the age range of 20 to 34 years and declined very slowly as migrants get older. About half (49%) of migrants at the younger ages (less than 15 years of age)

were literate. At this stage, it is not possible to compare literacy of migrants and population at the origin, however, literacy rate of total population of the country was close to 40 per cent and urban literacy rate was 67 per cent in 1991, literacy rate of mostly rural migrants seems to be relatively higher. The survey revealed that over three-fourths (76%) of migrants in urban area were literate, while literacy rate of urban population was 74.5 per cent (see chapter five). About one fourth illiterate migrants indicate, among others, passive response to conditions which push the migrant into moving, perhaps without a rational weighing of alternatives.

Regarding educational attainment of lifetime migrants, about one fourth had secondary level of education, nearly another quarter had School Leaving Certificate (SLC) and equivalent level. These two groups combined constituted half of migrants and that they had 6 to 10 years of schooling (Table 6.9). It is also noted that every sixth migrant in the group had higher education (Intermediate and above). It is obvious that level of education of lifetime migrants entering urban areas was most likely higher than population they leave at the rural origin; the population census 1991 recorded that 16 per cent rural population had primary level of education, 8 per cent had secondary level, 2 per cent had SLC and Intermediate level in 1991 (CBS, 1995 p. 392). These findings are consistent with Lee's theory of migrant selectivity. The survey findings also indicated that literacy status of non-migrant urban population was higher (literacy rate of male and female was 87 and 75 % respectively, not shown in the Table) than those of lifetime migrants in the area. Accordingly, proportion of non-migrants was high at various levels of education; 35 per cent had primary level, 30 per cent the secondary, 13 per cent had SLC and 14 per cent had intermediate level of education. One should keep in mind that the group of lifetime migrants under study were specially selected (mostly rural males and non-dependent) and more likely be educated compared to migrants in general.

Table 6.9 : Native Born Literate Migrants by Educational Attainment and Age at the Time of Migration, 1996

Age Group	Total(N)	No Schooling	Primary (1-5)	Secondary (6-10)	S.L.C & Equiv.	Intermediate & Above
Both Sexes	1525	16.26	17.30	26.65	23.20	15.61
< 15 Year	23	23.78	72.13	4.09	0.00	0.00
15-19	136	0.84	19.01	40.61	37.71	1.83
20-24	241	8.76	12.17	23.57	43.21	11.65
25-29	193	10.33	23.71	22.87	23.78	15.27
30-34	204	13.04	14.19	33.37	18.52	20.54
35-39	197	16.52	17.45	19.40	17.21	29.15
40-44	150	15.71	17.16	31.58	13.66	20.67
45-49	116	13.59	20.09	29.01	22.23	15.08
50-54	92	28.92	11.29	23.39	20.77	15.63
55-59	47	39.08	14.32	29.96	4.53	8.71
60-64	54	42.28	10.04	23.41	12.54	9.85
65 + Year	73	47.06	15.86	19.08	9.05	8.94

iv. Marital status

Life cycle changes have long been known to be major causes of spatial mobility (Rossi, 1955; Foley, 1960; Spears, 1970). While life-cycle is associated with age, most important life-cycle event for mobility are changes in marital status, marriage and its dissolution. Marriage is an important event in life, it brings individuals of opposite sex into family tie and more likely to control them from free movements. In Nepal, nevertheless, age at marriage increasing rather very slowly is low for both sexes (mean age at marriage for Males 21.4, for Females 18.1; in 1991) and it is almost universal. By the age 29, over 95 per cent of females get married; males get married at older ages than females, by that age 87 per cent of male were found married (CBS, 1995). It is found that majority (57%) of lifetime migrants in urban areas were married before coming to the area, 42 percent were single.

Table 6.10: Native Born Lifetime Migrants by Marital Status and Age at the Time of Migration, 1996

Age Group	Total(N)	Never Married	Married	Others	Total(%)
All Ages	2004	42.25	57.17	0.58	100.00
10-14 years	47	95.02	2.72	2.26	100.00
15-19	173	98.04	1.96	0.00	100.00
20-24	271	71.21	28.29	0.50	100.00
25-29	229	48.34	51.34	0.32	100.00
30-34	234	39.96	60.04	0.00	100.00
35-39	270	25.97	73.45	0.58	100.00
40-44	197	24.18	75.82	0.00	100.00
45-49	161	27.47	71.48	1.04	100.00
50-54	132	22.38	76.22	1.40	100.00
55-59	77	18.54	77.59	3.87	100.00
60-64	87	13.02	86.98	0.00	100.00
65 + Years	125	13.97	85.72	0.31	100.00

Comparison of marital status of migrants with the 1991 total population shows that far less proportion of migrants were married, i.e. 51 per cent of male migrants were married against 87 per cent recorded by the census.

Classification of migrants by age and marital status presented in Table 6.10 shows that high proportion of younger migrants were unmarried and proportion married increases as they get older. Structure of age and marital status of lifetime urban migrants markedly differ compared to the structure of population in 1991. For example - the proportion of never married males declined from 5.1 to 1.3 per cent by the age 30-34 to 60 and over in 1991 while the proportions remained much high (40 to 13 %) for those lifetime urban migrants in the same age range and for the same sex, male (CBS, 1995 p. 173). These findings indicate differentials in the characteristics of migrants compared to the population at large (Table 6.10). Female migrants who were excluded, due to reported cause of "Marital Relation" as reason of migration from the purview of analysis, were most likely currently married females.

Similarly, comparison of marital status of urban migrants presented in Table 6.10 with similar data obtained by DSS 1986/87, indicates changing pattern in marital status of migrants over time. The DSS reported that 62 per cent of urban migrants were at currently married status at the time of first move and 37 per cent were never married (CBS, 1988). Increase in never married group is expected in view of increasing age at

marriage, increased socio-economic responsibility associated with married life both at the origin and destination.

v. Major Job Prior to Migration

Job of migrants prior to migrating to the new place may be an indicator of push/pull factor or causes of migration. Distribution of migrants by major job prior to migrating to the urban places, is presented in Table 6.11. It shows that majority (46 %) of them had job in agricultural activities and one-fifth were students. As over 80 per cent of economically active population of Nepal were reported in agricultural occupation in 1991, survey reporting seems to be consistent with the prevailing situation. Large proportion of students among movers may be due to two main reasons, one they were more likely to seek opportunity for further education and the second - seeking job for employment after completion of education.

Table 6.11 : Native Born Lifetime Migrant Migrants by Main Job Prior to Migration to the Urban places and Sex, 1996.

Main Job	Coln. %	Total, N	Male %	Female %
All Jobs	100	2004	90.16	9.84
Agriculture	45.6	915	90.78	9.22
Service	15.3	306	98.45	1.55
Wage Earners	4.5	91	92.11	7.89
Own Family Enterprise	4.7	95	86.32	13.68
House Work	5.1	103	61.44	38.56
Student	19.6	392	91.02	8.98
Seeking Jobs	2.1	42	90.79	9.21
Others	3	60	84.91	15.09

The third largest group (15 %) of movers was, most probably, employed personnel who had employment in government or non-government organization. Change in place of residence of service holder could be due to transfer of job. These three large groups together constituted four-fifths of lifetime migrants in urban areas. Proportion of migrants who had job other than the three categories referred to above were each five per cent or less (Table 6.11). Migrants who were seeking job at the prior residence and moved to urban areas, may be in the same context, were 2 per cent.

vi. Causes of Migration from the Birth Place

Table 6.12 presents distribution of migrants by causes of migration from the birth place. The causes presented in the Table 6.13, however, different from those of major jobs prior to migration in Table 6.12, there must be inherent linkage between the two. It is not clear, whether the place of prior job was the place of birth, however, these two places should be the same for the first time movers. About one third (32%) of lifetime migrants reported "No good job or income" at the birth place, had to migrate (Table 6.12). For a developing country like Nepal where job opportunity are limited, productivity, particularly in agriculture, is relatively low, majority of work force have dissatisfaction with job. Facility for basic and higher education are either not available or very limited at many places.

Table 6.12 : Native Born Lifetime Migrant by Major Causes of Migration from the Birth Place and Sex, 1996

Major Causes	Col. %	Total(N)	Male	Female
All Causes	100.00	2004	90.16	9.84
Not Enough from Agriculture	12.60	252	89.95	10.05
No Good Job/Income	31.70	636	91.62	8.38
No Education Facilities	18.60	372	90.12	9.88
Social/Household Disputes	1.90	38	93.52	6.48
No Friends / Relatives	0.50	9	91.99	8.01
Transfer of Job	9.10	183	97.22	2.78
Seeking Jobs / No Jobs	17.40	349	84.44	15.56
Others	8.20	166	88.32	11.68

Therefore, migration decision are made either by desire for advancement or by compulsion in the absence of alternative opportunity at the birth place. For example - 19 per cent stated no educational facility, 9 per cent migrated due to transfer of job. Similarly, seventeen per cent reported that they were seeking or had no job i.e. there was no opportunity for employment. Most of the reasons stated were valid and related to economic reasons, for example - dissatisfaction from agricultural output, other job(s) they were doing, unemployment, transfer of job etc. are indicator of economic reason. Proportion of migrants showing social dispute no friends and relatives at the origin were less than 3 per cent (Table 6.12).

vii. Holding of Land at the Place of Birth

Occupancy of land at the place of birth could be an indicator of strong linkage of migrants with the origin, i.e. the place of birth. If a migrant has his/her property at the origin, s/he is likely to go often to the place for the management of property, remit income if s/he has family or relative(s) at the origin. It is interesting to note that three fourths of migrants had land occupancy at the place of birth and one fourth did not have such property linkage at the place (Table 6.13).

Table 6.13 : Native Born Life Time Migrants by Land Holding Status at the Place of Birth, 1996

	Have own/family Land at place of birth			Total(%)
	Total(N)	Yes	No	
Both Sexes	2,000	74.59	25.41	100.00
Male	1,803	74.72	25.28	100.00
Female	197	73.35	26.65	100.00

It is generally found that migrants are skilled labour force, they often take with them new ideas, skills and productive knowledge. In case when migrants return to the place of birth they also may bring with them new ideas and improved skills they had acquired before. Though information on returning of migrants to the place of origin is rarely available, the land holding at the origin provides strong affiliation and possibility of regular contact. It is expected that exchange of ideas among residents at the origin and use of acquired knowledge would contribute to bring social and economic changes at many rural places. In Nepal such a process may be operating but at a slow pace.

7. Conclusion

Data collected by 1996 Urban Population Survey presents valuable information on the size, streams, demographic composition and causes of migration. In addition, it provides information on specific characteristics of selected group of migrants which are useful indicators for formulation of population policy and control population mobility.

The survey indicated that among urban residents, 41 per cent were lifetime migrants and about three-fourths were native, born in urban area. Majority of lifetime migrants in urban areas were females, the sex ratio being 86.3, while the survey indicates unexpected domination of males among urban natives (sex ratio 127.8). The sex ratio of urban natives was very high (above 120) for age 20 and above contrary to the low ratio of migrants in the same ages. There is marked difference in the age-sex structure of migrant and non-migrant population. The structure is consistent with findings of several studies, migrants had few children and large proportion in working age while opposite was the case among urban natives.

In the reason for migration, over two-fifths (40.7%) reported dependent, 28.3 per cent reported marital relation. Sex differential in the reason for migration is worth noting - over half of female migrants reported marital relation as cause of migration and 43 per cent reported dependent, the percentage of male migrants in the same category was 2.2 and 37.7 respectively. Other major reasons for male migration were search of job (22.5%), who had service/job or transfer of job (13.2%), education/ study (9.3%) and Business (7.4%). About a quarter of male migrants reported that they moved to urban areas in search of employment, the corresponding figure for females was 2 per cent only.

Urban migrants were composed of natives and alien, the survey reported that 11 per cent were alien among selected group of migrants. Among native born, 91 per cent were rural and 9 per cent were urban. That is majority of migration was rural to urban and about one tenth was urban to urban. Analysis of age-sex composition of selected group of native born migrants revealed consistency with generally observed pattern that migrants are largely males and age selective. Duration of residence of migrants indicate number of migrants increasing as the time advances. Most of migrants were literate/educated compared to non-migrants at the rural origin. As the age at marriage of Nepalese population is low, and large proportion of migrants were of age 20 and over, over half (57%) of migrants were married and little over two-fifths were unmarried.

Most of migrants (45.6%) were agricultural worker followed by students (19.6%) and service holder (employed, 15%) prior to moving to urban places. Those involved in household duties, wage earner, job seeker etc. were each 5 per cent or less. These figures most likely indicate underemployment in agricultural activities, mobility of students due to desire for further study and search for employment in urban areas.

Reporting of most of migrants about major cause of migration from the birth place indicated economic dissatisfaction at the place of birth, for example - no good job or income, seeking job or no job, not enough from agriculture were some of the common causes. However the distance of move is not known, it is interesting to note that three-fourths of urban migrants had land holding at the place of birth. Though, no

enquiry was made for area of land holding at the place of birth, migrants often look for better opportunity and better place to live

Consequences of migration and associated flows of capital, occupational skill for the households, community and the region which receive or lose migrants can be profound. The importance of these impacts is naturally dependent on the magnitude of net-migration and the extent to which net-migration is selective of particular sex, age and occupational groups. The survey remains silent about the issue.

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CHAPTER VII

HOUSEHOLD PHYSICAL FACILITIES

Tunga S. Bastola

This section presents a description of the housing characteristics and other information pertaining to households. Schedule-1 of the questionnaires used in the "Urban Population Survey 1996" (UPS) contained questions to collect information on: type of dwelling or housing unit, household's tenure status, access to basic services, fuel for cooking, possession of durable goods, perception towards environment of the locality, and death of household member. Schedule-1 was filled in for 3980 urban households selected from all 36 municipalities of the country. Most of the questions were related to household. Topics like drinking water supply, type of toilet, electric light, type of outer walls and roofing, and tenure status basically referred to housing unit. Answer to the question concerning the local environmental problem was based on respondent's subjective judgment. These information have been discussed in the light of household physical facilities in the urban areas of Nepal. Some of the results from the survey have also been compared with the results of the 1996 Nepal Living Standards Survey (NLSS)¹.

The primary respondent in the survey was head of the household; if s/he was not available then the next best informed member was interviewed. The definition of household was followed in accordance with the standard definition recommended by the United Nations. In other words, the concept of household was based on the "arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living." A housing unit, on the other hand, was defined as a "separate and independent place of abode basically intended for habitation by one household, or one not intended for habitation but occupied as living quarters by a household at the time of the survey."

Category	Urban Population Survey	Nepal Living Standards Survey
All urban areas	63.28	62.72
Kathmandu	34.76	28.67
Other urban areas	1.98	7.04

¹ The NLSS is a multi-topic household survey (conducted by the Central Bureau of Statistics over a period of 12 months between June 1995 to 15 June 1996) covering a wide array of social and economic data pertaining to the "levels and determinants of living standards" in Nepal. The survey was based on a nation wide sample of 3373 households of which 716 were urban households.

1. Housing

Table 1 reports the percentage distribution of households living in housing units by their tenure status. Tenure status refers to the extent to which households own or rent the living quarters or housing units which they occupy. In the survey, tenure status was divided into three categories owner, renter and under other types of arrangements. Owner household possessed ownership title or had legal possession of the housing unit. If the household did not own the housing unit but actually paid rent either in cash or in kind to the owner for its use then the tenure status was defined as a renter. Occupied housing units which were neither owned nor rented were classified under "other" tenure status. According to the survey, a majority of households were the owner, 63 percent of households owned their residents. One household in each three households, on the other hand, was a renter.

A comparison of the UPS results with the tenure status as obtained in the NLSS is also presented in Table 1. Tenure status in the NLSS was classified into the following groups owner, renter, rent free, squatter and under other tenure arrangements. The definitions of the terms "owner" and "renter" were similar in the two surveys. The percentage of owner households in the NLSS is seen higher compared to the UPS survey. The results from this survey are, however, comparable to the results of urban areas in the Katmandu valley in the NLSS. The proportion of renter households in other urban areas in the NLSS are lower compared to the UPS results. Except for some enumeration problems, no specific reasons could be pointed out for the differences at this juncture; some more in-depth analyses might reveal the causes. It should be noted that the results in the NLSS were based on 716 households whereas 3980 households were interviewed in the UPS. Besides, some of the reasons for the differences might be due to the objectives, sample selection and data collection procedures in the two surveys.

Table 1 : Tenure of Households in Housing Units, UPS and NLSS

	Owner	Renter	Others
Urban Population Survey			
All urban areas	63.28	34.76	1.96
Nepal Living Standards Survey			
Kathmandu	65.75	28.67	5.58
Other urban areas	87.15	7.04	5.81
All urban areas	78.54	15.74	5.72

Table 2 presents the percentage distribution of households by construction materials of outer walls and roof of buildings. More than half (53 percent) of occupied housing units were made of bricks or stones joined by cement. Some 23 percent households were residing in the housing units made of mud bonded bricks and stones. Other households were residing in structurally poor housing units walled with mud and bamboo or un-baked bricks or wood.

Table 2: Type of Wall and Roof of Housing Units, 1996

Main material used in outer walls	Percent of households	Type of roofing material					Total
		RBC/ RCC	Galvanized sheet	Tile/ slate	Straw/ thatch	Others	
Cement bonded bricks/stone	52.79	77.82	17.41	4.54	0.01	0.21	100.00
Mud bonded bricks/stone	22.51	15.69	63.08	16.89	2.54	1.80	100.00
Unbaked bricks	5.88	1.85	42.22	29.66	19.29	6.98	100.00
Wood	6.18	0.21	61.98	32.53	4.88	0.39	100.00
Mud and bamboo	10.33	0.14	4.67	51.18	44.40	0.21	100.00
Others	2.31	1.40	32.87	20.67	20.55	24.51	100.00
Total	100.00	44.79	30.88	15.71	7.08	1.54	100.00

Nearly 45 percent of households were residing in buildings roofed with RBC (iron rods, bricks and cement) or RCC (iron rods, concrete and cement) materials. Galvanized iron sheets or corrugated iron sheets were the next most commonly used roofing materials; about 31 percent of households occupied housing roofed with these materials. About 16 percent of households were living in buildings roofed over with either Jhingati or tiles or Khapada or slate. Other 9 percent households were living in structures roofed over with straw, thatch or other inferior roofing materials. Table 3 presents a comparison of data from this survey with those obtained from the NLSS. In spite of the differences in the categories used, the results are similar in these two surveys.

	1996	1991
Total	100	100
Other materials	18.24	13.31
Mud, brick, stone, and wood	28.87	31.36

² Diverse construction materials include: stone, brick, cement, sand, gravel, concrete, concrete brick, iron rod, corrugated sheet, mangle. (See also, CBS (1997))

Table 3 : Percent of Households in Housing Units by Type of Outer Walls and Roof, UPS and NLSS

	Outer Walls			Roof	
	Cement, brick, stone	Mud, bricks, stone	RBC/RCC [*]	Galvanized iron sheet	Tile/slate ^{**}
Urban Population Survey	52.3	22.5	44.8	30.9	15.7
Nepal Living Standards Survey	47.3	29.7	37.1	29.6	17.5

* In the NLSS, the corresponding category was "Concrete"

** In the UPS, the category included Jhingati, tile, Khapada and slate.

More than three-fourths of buildings with cement bonded bricks or stones outer walls were roofed over with RBC or RCC roofing materials. About 17 percent of housing units using cement bonded stones or bricks were roofed over with galvanized iron sheets (Table 2). Table 4 reports the percentage distribution of households in housing units classified by construction materials used in the outer walls and the roof. Construction materials² used in the building determine the structural acceptability of housing units. Structurally acceptable housing units are those built of durable materials that will "safeguard" the households occupants from "adverse" conditions. Classified on the basis of the construction materials, about 50 percent of the households were housed in structurally acceptable housing units.

Table 4 : Percentage Distribution of Households in Housing Units by Type of Outer Walls and Roof

Construction Material of Outer Walls	Construction Material of Roof			Total
	RBC, RCC, galvanized sheet	Jhingati, tile, Khapada, slate	Other materials	
Cement, brick, stone	50.28	2.39	0.12	52.79
Mud, brick, stone, and wood	21.56	5.80	1.31	28.67
Other materials	3.82	7.51	7.21	18.54
Total	75.66	15.70	8.64	100

² Durable construction materials include: stone, brick, cement, sand, gravel, concrete, concrete brick, iron rod, corrugated sheet, marble. [See also, CBS (1993)].

2. Water Supply

The overall situation of drinking water in urban areas is shown in Table 5. On the whole, 67 percent of households had access to piped water. Among these households (having access to piped water supply) some 84 percent households had connections within the premises. Piped water in the survey referred to water provided for housing units by pipe from public systems or from "individual installations". Another major source of drinking water supply was tube well in which ground water is obtained through perforations in the metal tube placed in the ground. Nearly 26 percent of the households depended on tube wells. Five percent of the total urban households was dependent upon open or dug wells and Kuwa. Open wells are generally not acceptable from a health point of view. Another two percent of households depended on largely unreliable sources of water like spring, stream, canal and spring.

Table 5 : Source and Sufficiency of Drinking Water in Occupied Housing Units, 1996

Source	Percent of households	Distance from the housing unit			Total	Sufficiency of water for households			Total
		Within premise	Nearby	Far away		Adequat	Adequate in wet season	No adequate	
Piped water	66.99	84.32	12.80	2.88	100	52.41	25.26	22.33	100
Tubewell	26.01	71.98	23.63	4.39	100	93.17	3.90	2.93	100
Well	5.07	36.89	58.89	4.22	100	83.39	6.74	9.88	100
Spring	1.06	0	74.40	25.60	100	26.77	44.25	28.98	100
River	0.23	0	37.33	62.66	100	35.81	53.71	10.48	100
Other	0.66	0	72.80	27.20	100	16.26	11.08	72.66	100
Total	100.00	77.10	19.03	3.87	100	64.03	18.94	17.03	100
	(3980)								

The percentage of households reporting the source of water supply to their housing units by pipe is somewhat higher in this survey compared with the corresponding figures in the NLSS. A comparison of the results from the two sources is presented in Table 6.

Table 6 : Proportion of Households by Sources of Water Supply, UPS and NLSS

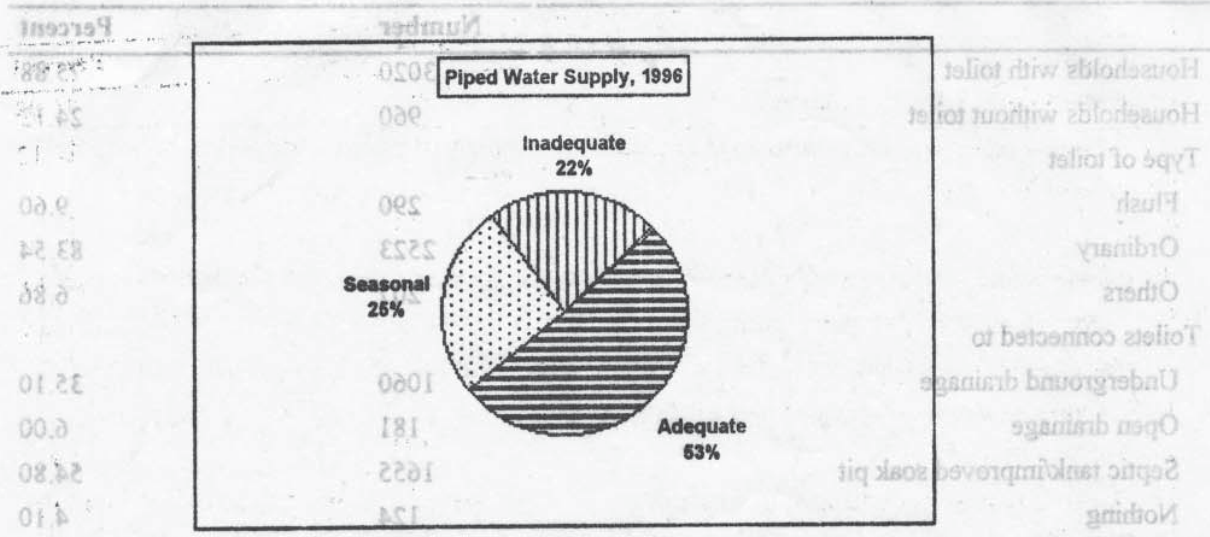
Survey	Piped water	Well water*	Other sources
Urban Population Survey	67.00	31.05	1.95
Nepal Living Standards Survey	58.07	39.99	1.94

* Well water included tube wells and other wells in the survey whereas it consisted of covered and open wells in the NLSS.

On the whole, 77 percent of households had water supply within the premises (including piped water and wells). Nearly 3 percent urban households had to go far away from their dwelling places to fetch drinking water. One-fifth of the total households had water supply outside the premises of the housing units they occupied.

Water supply is not adequate in urban areas. Some 36 percent of the total urban households faced scarcity of water at one or more times during 12 months period preceding the survey. Nearly one-sixth (17 percent) of total households were faced with inadequate supply all the year round. Other 19 percent of households had intermittent water supply and faced inadequacy especially during the dry season. Only 64 percent of households reported that they had adequate water supply at all times of the year. Continuous piped water supply all the year round is also rare and intermittent supplies have been developed as the standard. Figure 1 shows the status of piped water in the urban areas. 53 percent of the households served with piped water said that they had water shortages at one or mores time during 12 months period preceding the survey. 22 percent of households with piped water supply faced water shortages all the year round.

Figure 1
Sufficiency of Piped Water Supply to Urban Households,
Nepal, 1996



3. Toilet Facilities

Table 7 reports household's access to toilet facilities. About 76 percent of the urban households had access to toilets while others had no fixed latrines. Hence, it is implied that, nearly one-fourth of the urban households used open spaces for defecation. Most of the toilets used by urban households (83 percent) were ordinary type without any modern flush system; wastes were washed down by pouring water manually using a bucket or pitcher. Only 10 percent of toilets were flush type. Flush toilet is an "installation connected with piped water" and human wastes are flushed by water under pressure. About 7 percent of toilets were nothing but simple pit type latrines. Figure 2 presents the distribution of total households according to toilet facilities.

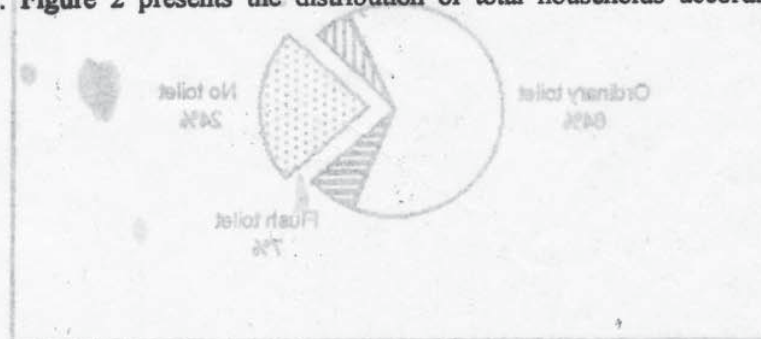


Table 7 : Toilet Facility in Housing Unit, 1996

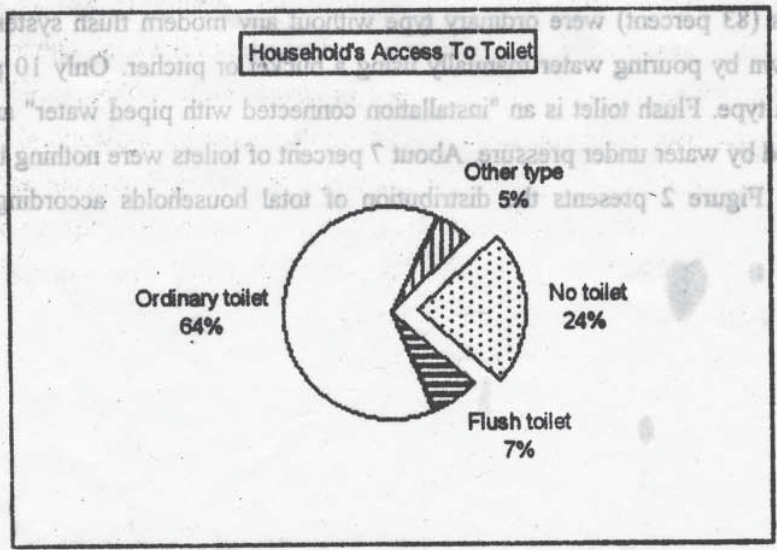
	Number	Percent
Households with toilet	3020	75.88
Households without toilet	960	24.12
Type of toilet		
Flush	290	9.60
Ordinary	2523	83.54
Others	207	6.86
Toilets connected to		
Underground drainage	1060	35.10
Open drainage	181	6.00
Septic tank/improved soak pit	1655	54.80
Nothing	124	4.10

3. Toilet Facilities

Figure 2

Urban Household's Access to Toilet Facilities, Nepal, 1996

Table 7 reports household's access to toilet facilities. It is implied that nearly one-fourth of the urban households used open spaces for defecation. Most of the toilets used by urban households (83 percent) were ordinary type without any modern flush system. Wastes were washed down by pouring water into a bucket. Only 10 percent of toilets were flush type. Flush toilet is an installation connected with piped water, and human wastes are flushed by water under pressure. About 7 percent of toilets were nothing but simple pit latrines. Figure 2 presents distribution of total households according to toilet facilities.



4. Sewerage Facilities

Table 7 also presents the status of toilet outlets. About 41 percent of urban households had access to sanitation facilities (for wastes connected to either underground drains or open drains or soak pits or leaching pits). Only 35 percent of toilets were connected to municipality underground drainage system. 55 percent of toilets were connected to private septic tanks in which wastes are drained into tanks (where they are accumulated to be disintegrated by bacteria). Other 10 percent of household's toilet wastes were discharged directly into either uncovered canals, or open drains and ditches or other similar unmanaged toilet outlets. Open drains and unmanaged discharges are the major causes of environmental pollution in urban areas of Nepal. In the absence of appropriate disposal facilities, streams, canals and even muddy roads receive much of human wastes.

8. Environmental Problems

5. Solid Waste Disposal

Household's solid waste in the survey referred to "the hard, compact, unbroken mass of used, decayed or useless household material". Solid waste management system in urban areas seems defective. About 22 percent of households threw their wastes generated in the public places which accumulated on streets and open spaces between houses (Table 8). Only 23 percent of households disposed generated solid waste in proper places for the purpose. Households served by the systematic garbage collection system was only 17 percent of the total. Other 17 percent of households either buried or burned the solid wastes generated in the household. About 15 percent of households used solid wastes to make it into compost for agricultural cultivation. There was a significant difference between the households' with and without toilets in the sanitary manner of the household wastes disposal. Most of the households without toilets disposed their household solid wastes either by dumping it into public places or making it into composts for agricultural use.

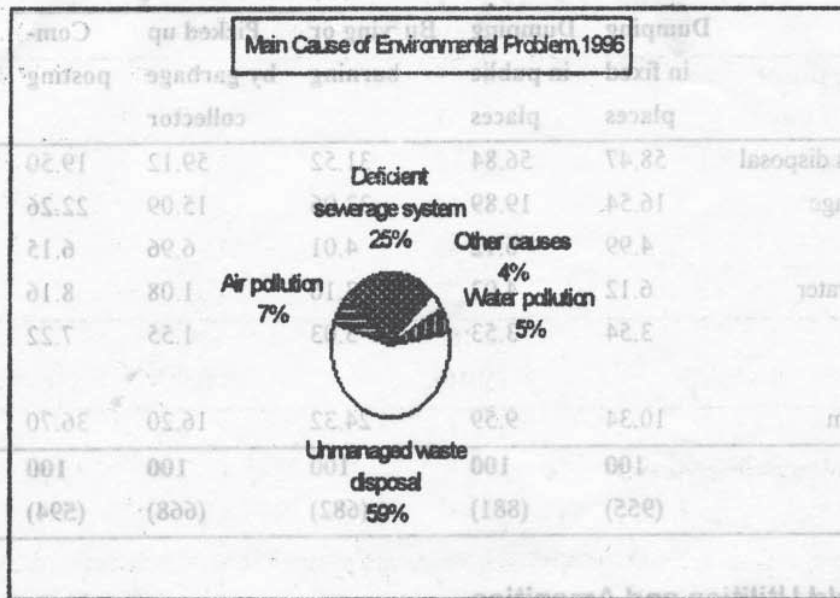
Table 8 : Usual Method of Household Wastes Disposal

Usual method of wastes disposal	Households with toilets	Households without toilets	All households
Dumping in public places	21.19	24.95	22.10
Dumping in fixed places	28.52	9.64	23.97
Picked up by garbage collector	21.33	2.36	16.76
Burying or burning	18.25	13.58	17.12
Composting	8.43	35.32	14.92
Others	2.27	14.14	5.13
Total	100	100	100
	(3020)	(960)	(3980)

6. Environmental Problems

In the survey there was an opinion question about the main cause of environmental conditions or problems as seen in the urban areas (Annex A). The question was: "What might be the main cause of environmental problem (if any) of this locality?" The answer categories were polluted or unclean water, unmanaged waste disposal, polluted air, unmanaged drainage systems, other causes and no environmental problem. Response to this question was based on the subjective judgment of the respondent. Results indicated that the majority of urban population was worried about the environmental degradation. A majority (67 percent) of them opined that the main cause of environmental problems in their locality was either unmanaged wastes disposal or deficient sewerage disposal systems (Table 9). One out of each 5 respondents said that the main cause of urban pollution was the deficient sewerage system. Nearly 10 percent of the respondents attributed the main cause to either polluted water or polluted air in the locality.

Figure 3
Main Cause of Environmental Problems in Urban Areas,
Nepal, 1996



It is interesting that there were significant differences in the opinion of the respondents towards environmental condition by usual manner of wastes disposal by households (Table 9). A higher proportion of households disposing their household wastes by means other than dumping in the public places or in the fixed places opined that there was no environmental problem in their locality. Except for the households that disposed their household wastes by composting, the most common cause reported was the unmanaged waste disposal. Figure 3 reports the main cause of environmental problem as perceived by the respondent who felt that there was an environmental problem in his locality.

Table 10 : Presence of Household Conveniences, 1996

Percentage of households	Electric lighting	Telephone	Refrigerator	Water filter	Television receiver	One or more these facilities
With	82.12	14.31	11.64	21.17	41.36	82.82
Without	14.88	82.69	88.36	78.83	58.64	14.12
Total	100.00	100.00	100.00	100.00	100.00	100.00

Table 9 : Main Cause of Environmental Problem

	Households by Usual Method of Waste Disposal					All households
	Dumping in fixed places	Dumping in public places	Burying or burning	Picked up by garbage collector	Composting	
Unmanaged wastes disposal	58.47	56.84	31.52	59.12	19.50	47.20
Unmanaged sewerage	16.54	19.89	33.96	15.09	22.26	20.51
Polluted air	4.99	6.12	4.01	6.96	6.15	4.43
Polluted/unclean water	6.12	4.02	3.16	1.08	8.16	5.49
Others	3.54	3.53	3.03	1.55	7.22	3.60
There is no problem	10.34	9.59	24.32	16.20	36.70	18.77
Total	100	100	100	100	100	100
	(955)	(881)	(682)	(668)	(594)	(3980)

7. Household Utilities and Amenities

Table 10 reports the presence of household conveniences. On the whole about 85 percent of urban households had access to electric light in their housing units. Telephone facility is very limited in Nepal. According to the survey results, only 14 percent of the total urban households had access to telephone facility. About 12 percent of households owned refrigerators. 21 percent households had water filters. Other 14 percent households had access to none of these facilities. A higher proportion of households had television receivers compared with other conveniences in the household; 41 percent of households possessed televisions.

Table 10 : Presence of Household Conveniences, 1996

Percentage of households	Electric lighting	Telephone	Refrigerator	Water filter	Television receiver	One or more these facilities
With	85.12	14.31	11.64	21.17	41.36	85.85
Without	14.88	85.69	88.36	78.83	58.64	14.15
Total	100.00	100.00	100.00	100.00	100.00	100.00
						(3980)

A comparison of some of these results with those obtained from the Nepal Living Standards Survey (NLSS) is presented in Table 11. The results from the UPS are slightly higher than those from the NLSS.

Table 11 : Percentage of Households With Selected Facilities, UPS and NLSS

	Electric light	Telephone	Toilets
Urban Population Survey	85.12	14.31	75.88
Nepal Living Standard Survey	80.35	12.02	67.06

8. Transport Facilities

Table 12 reports the presence of different vehicles for private transportation facilities. Motorization is limited in the country. Very few (less than 5 percent) households owned car or jeep in 1996. Motorbikes and scooters were also not common; nearly 10 percent of the households had motorbikes or scooters. Bicycles were by far the most used mode of personal non motorized transport in urban areas; 34 percent of urban households used bicycles for personal trips. 57 percent of the households did not possess any of the private means of transportation.

Table 12 : Access to Private Transportation to Household, 1996

Percentage of households	Car/Jeep	Motorbike-Scooter	Bicycle	Other	One or more of these
With	2.42	9.68	34.46	0.48	42.60
Without	97.58	90.32	65.54	99.52	57.40
Total	100.00	100.00	100.00	100.00	100.00

9. Fuel for Cooking

In urban areas there is a heavy reliance on kerosene as a cooking fuel. 46 percent of urban households used kerosene as the main fuel for cooking in 1996. Wood, which is the primary source of energy for cooking in the country was used by nearly 29 percent of urban households. Nearly one in five households used gas (LPG) for cooking. Use of electricity and bio-gas was very limited or negligible.

Table 13 : Main Fuel Used for Cooking, 1996

	Electricity	Gas (LPG)	Bio-gas (Gobar gas)	Kerosene	Wood	Others	Total
Percent of households	0.75	19.51	1.18	45.88	28.71	3.97	100 (3980)

A comparison of the results with the Nepal Living Standards Survey (NLSS) is presented in Table 14. There is not much difference in the percent of households using kerosene and wood. There is, however, a notable difference in the use of LPG.

Table 14 : Main Fuel used for Cooking, UPS and NLSS

	Kerosene	Wood	LPG	Others
Urban Population Survey	45.88	28.71	19.51	5.90
Nepal Living Standards Survey	42.01	31.34	10.84	15.81

10. Deaths During Two Years

About 6 percent of the total urban households reported deaths either in 2051 BS (April 14, 1994 - April 13, 1995) or in 2052 BS (April 14, 1995 - April 12, 1996). Deaths reported in 2052 is 1.27 times higher than those reported in the previous year (2051). The highest proportion of deaths reported is in the age group 0-4 years. Ages above 49 years also have had comparatively higher proportions of death rates.

Table 15 : Number of Deaths Reported During Past 24 Months, 2051 - 2052

Number of deaths in a household	Number of households reporting		
	2051	2052	Total (2051-52)
None			
One	99	129	210
Two	5	2	16
Three	0	1	1

About 11 percent of the total deceased during 24 months (belonged) were under 1 year (or were dead before reaching first birth day); 9 percent were at age group 1-4 years, 5 percent in the age group 5-14 years and 79 percent were above 14 years.

11. Household Facilities by Construction Materials

Table 16 presents a summary of household physical facilities available cross tabulated with the construction materials of buildings. It is seen that most of the facilities are available to structurally more acceptable households. For example, 92 percent of the households residing in the housing units constructed with cement, bricks or stones, had toilet facilities. Whereas, only 23 households constructed with non durable materials like mud, bamboo et cetera contained the toilet facilities. This phenomena is observed for most of all other variables on facilities and amenities included in the survey. Use of wood was more common to the households occupying substandard housing units. Ownership of bicycle, however, was more or less equally distributed.

Facility	With cement, bricks or stones	With mud, bamboo et cetera	With wood
Reporting deaths	2.12	2.31	8.79
Renting the housing unit	40.82	32.74	12.99
Owning the housing unit	27.19	62.89	81.18
With bicycle	32.42	34.48	31.47
With motorcycle, scooter	14.88	6.49	0.39
With car, jeep	3.22	2.20	0
Percent of households (1980)	22.79	28.69	18.22
	100		

Table 16 : Household Facilities by Construction Materials of the Outer Walls of Housing Unit, 1996

	Cement, brick, stone	Mud, brick, stone and wood	Others	Total
Percent of households				
With piped water	76.81	69.55	50.33	66.69
With piped water connected to the house	91.00	75.61	39.81	77.10
With sufficient water round the year	63.99	53.72	80.08	64.03
With toilets	92.21	80.34	22.55	75.89
With flush toilet	12.82	4.33	1.11	9.60
With private septic tank or improved soak pit	62.78	38.13	54.46	54.81
Dependent on open drains	3.62	8.41	20.76	6.02
With under ground sewer facility	31.17	48.32	7.71	35.08
With electric light	96.81	88.98	45.86	85.12
With telephone	22.32	7.59	1.34	14.31
With refrigerator	17.98	7.37	0.31	11.64
With water filter	31.60	15.32	0.50	21.17
With television receivers	57.09	34.73	6.84	41.36
Using LPG as the main cooking fuel	32.04	8.21	1.29	19.51
Using kerosene as the main cooking fuel	51.80	53.55	17.06	45.85
Using wood as the main cooking fuel	12.08	33.04	69.21	28.69
With car, jeep	3.22	2.50	0	2.42
With motorcycle, scooter	14.68	6.49	0.39	9.68
With bicycle	35.45	34.48	31.47	34.46
Owning the housing unit	57.19	62.89	81.13	63.27
Renting the housing unit	40.82	35.74	15.99	34.76
Reporting deaths	5.15	5.31	8.79	5.87
Percent of households	52.79	28.69	18.52	100 (3980)

12. Women-headed Households

Women-headed households constituted about 13 percent of the total surveyed households. For some of the characteristics related to the household physical facilities, results for women-headed and men-headed households were similar. For other characteristics, however, women-headed households differed from the households headed by men. These differences are reported in Table 17. A lower proportion of women-headed households (26 percent) compared with men-headed households (36 percent) were renter. Cases for women-headed households, on the other hand, were more unfavorable than those for men-headed households. These included proportion households living in housing units constructed with durable materials, access to toilets and other sanitation facilities; access to electricity, telephone, possession of water filter and television; ownership of car, motorbike, and bicycle. A higher proportion of women-headed households used wood as the main fuel for cooking compared to the proportion of men-headed households that used wood as a main fuel for cooking. A higher proportion of women-headed households, about 10 percent compared with 5 percent headed by men reported deaths in the household in the last two years preceding the survey

	Women-headed (242)	Men-headed (242)	Total (484)
Deaths in the household	10	5	15
Bicycle	27	34	61
Motor cycle	10	10	20
Car, jeep	3	5	8
Wood	31	29	60
Kerosene	46	46	92
Gas (LPG)	17	20	37
Television receiver	47	41	88
Water filter	21	21	42
Refrigerator	10	12	22
Telephone	11	12	23
Electric light	84	82	166
Dumping in a fixed place	21	24	45
Dumping waste in public places	24	22	46

Table 17 : Selected Household Characteristics For Men and Women Headed Households

	Women headed households	Men headed households	All households
Percent of households:			
Owner	72	62	63
Renter	26	36	35
Durable materials in outer walls	48	54	53
Piped water	74	66	67
Toilet	74	76	76
Toilet connected to underground sewer	37	35	35
Toilet connected to private septic tank	52	55	55
Dumping waste in public places	24	22	22
Dumping in a fixed place	21	24	24
Electric light	84	85	85
Telephone	11	15	14
Refrigerator	10	12	12
Water filter	21	21	21
Television receiver	41	42	41
Gas (LPG)	17	20	20
Kerosene	46	46	46
Wood	31	28	29
Car, jeep	1	3	2
Motor cycle	5	10	10
Bicycle	20	37	34
Deaths in the household	10	5	6
Total	13	87	100
	(505)	(3475)	(3980)

13. Conclusion

Urban households suffered from shortages of basic infrastructure services such as water supply, sanitation, solid waste disposal and transport facilities. One third of the households did not have access to piped water supply and one fourth of the households did not have proper toilet facilities. Extremely poor sanitation characterized a number of urban households. Transportation was deficient; private means of road vehicles were limited to few households. Telephone facility (communication condition) was poor. Nearly one-tenth the households possessed telephone facility. Although the overwhelming majority of the households of the country were owner of the housing units they occupied, about 35 percent of the households were renter in urban areas of the country. In general it can be said that the urban areas of the country were better endowed with basic infrastructure services but the condition of urban population was not satisfactory. Insanitation beset the environmental degradation problem of the country. Sewerage systems and solid waste management deficiency were considered as the two most prominent causes of the environmental problem.

Whereas 67 percent of the urban population were provided with piped water only 35 percent of urban households had access to sanitation services like access to the underground sewers system. Continuous water supply was rare; intermittent water supply was the common phenomenon. About 35 percent of the households were dependent for water needs on wells and other unreliable sources like rivers, canals and spring. About 50 percent of the population lived in structurally sub-standard housing units.

Almost one-fourth of the urban households dumped their household's wastes on the public places. Only 17 percent of the urban households had access to garbage collection services. Another 17 percent household either buried or burnt their household's wastes. Burning or rubbish created air pollution and other insanitation and wastes dumped along the roadside has made the city unattractive to passers by as well as to tourists.

Most of the household physical facilities were enjoyed by the households residing in structurally more acceptable or standard households. Households residing in structurally sub standard housing units were comparatively more disadvantaged in respect to household amenities and utilities. Similarly, women headed households were comparatively more

disadvantaged in respect of many household physical facilities. Nearly 30 percent of the household used wood as the main fuel for cooking which is considered as the main indoor air pollutant in households.

Ownership of the means of private transportation was limited. Bicycle was the most common means of private transportation; about 34 percent of households owned bicycle in 1995/96.

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ANNEX A: QUESTIONNAIRE

URBAN POPULATION SURVEY 1996

(Household's Access to Physical Facilities and Other Information)

SCHEDULE - 1

1. Where does your drinking water mainly come from?

1. Tap (piped water supply)
2. Tube well / rower pump
3. Well / kuwa
4. Stone spout (dhunge dhara)
5. River / stream / canal
6. Other

2. Where is the drinking water collecting place located?

1. Within the premises of housing unit
2. Outside the premises but not far
3. Far from the housing unit

3. Does your household get sufficient drinking water from the source mentioned in Q-1?

1. Sufficient all the year round
2. Sufficient except during the dry season
3. Not sufficient all the year round

4. Is there a toilet in this housing unit for the use of your household?

1. Yes (↓)
2. No (→ Q 7)

5. What is the type of the toilet in use for your household?

1. Flush (piped water flow)
2. Non-flush (water to be poured manually)
3. Other

6. What is the type of outlet to dispose of the waste from the toilet in use for your household?

1. Underground sewer
2. Open drain
3. Septic tank/improved soak pit
4. No outlet

7. How do you dispose of your household solid waste/trash?

1. Dump in public places
2. Dump in a fixed place
3. Give to private waste/trash collector
4. Bury/burn
5. Use for fertilizer
6. Other

8. What might be the main cause of environmental problem (if any) of this locality?

1. Polluted/unclean water
2. Unmanaged waste disposal
3. Polluted air
4. Unmanaged drainage systems
5. No problem
6. Other

9. Which of the following utilities and amenities are available to your household?

1. Electric light
2. Telephone
3. Refrigerator

4. Water filter
 5. Television receiver
 6. None of the above
- 10. What kind of fuel is most often used by your household for cooking?**
1. Electricity
 2. Gas (LPG)
 3. Gobar (bio) gas
 4. Kerosene
 5. Wood
 6. Other
- 11. Does your household own any of the following items?**
1. Motor car / jeep
 2. Motorcycle / scooter
 3. Bicycle
 4. Other type of road vehicle
 5. None of the above
- 12. What is the tenure of the housing unit occupied by your household?**
1. Owner
 2. Renter
 3. Other
- 13. What is the main construction material of outside wall of the housing unit occupied by your household?**
1. Cement, brick, stone
 2. Mud, baked brick, stone
 3. Mud, unbaked brick, stone
 4. Wood
 5. Mud, bamboo
 6. Other

- 14. What is the main construction material of roof of the housing unit occupied by your household?**
1. RBC / RCC
 2. Galvanized iron, corrugated sheet
 3. Jhingati / tile / Khapada / slate
 4. Thatch / straw / stalk
 5. Other
- 15. Did any death occur during the last two years period between Baishakh 2051 and Chaitra 2052 last?**
1. Yes
 2. No → Next Schedule
- 16. When did the death occur and how old was the person when s/he died? (In cases of more than one deaths, check sex, and write age and date of death for each of the deceased).**
- | | | | |
|---------|-----------|-----|---------------|
| 1. Male | 2. Female | Age | Date of death |
| 1. Male | 2. Female | Age | Date of death |