CHAPTER 8
CONCEPTUAL FRAMEWORK FOR MEASUREMENT OF THE ECONOMIC ACTIVITY OF POPULATION FROM THE CENSUSES

-Badri P. Niroula*

8.1 Introduction

In Nepal population census is conducted every 10 years. The census or population count formally began in 1911 and the last census of 2001 is the tenth in the series. In a review of available census documents we find question to collect information on economic activity of population was included in the questionnaire since the first census but documentation and publishing of results are found only since 1952/54 census. The concept and definition used for collecting information on economic activity of population, number and types of questions administered, however, changed from time to time (CBS, 1995) limiting the value, uses and comparison of statistics generated by the census. In a census /survey, data on economic activity of population collected and classified by using standard concept and definition facilitate measurement, presentation and comparison of data within and across the country. We can also measure changes over time in the activity structure of human labour both by occupation and industry groups. Census data on a range of characteristics of population is not only a benchmark statistics, it provides distribution and structure of population in various sectors of economy. Such a statistical information based on some national or international standards would provide a strong base for establishing rational policy for human resource development, and formulate programs to generate employment in various sectors of economy.

In this chapter we will briefly review census questions on economic activity of population administered in past censuses, examine whether concept, definition used are in line with standard definition. The focus of discussion will be on economic activity data generated and published by the census 2001, examine the data along with standard definition and fit in ILO Framework. To create

* Badri P. Niroula is a Deputy Director of Central Bureau of Statistics.
interest of users on economic activity of population and make meaningful utilization of data, the classification goes beyond the Framework.

8.2 Background

In a census/survey, the problem of collecting statistics on economic activity of population starts from the beginning and cycles through the stage of presentation. For instance – understanding the concept of work, making a clear distinction between economic and non-economic activity/work, establishing a working definition for measuring participation of work force, formulating questions to be included in the schedule, training personnel at various levels, administering questions in the field, editing collected information, if necessary, recognizing and classifying collected information in various occupation and industry groups and then presentation of statistics to users has been a challenging task. On the part of data presentation, it has been difficult to ensure that data are based on standards, user friendly, comparable with the past both at the national and international levels. In a census or large scale survey, difficulty in explaining and properly implementing the concept of work/activity (economic and non-economic), particularly in the developing country, has been well recognized. In the context of collecting information on economic activity of population it has been difficult to explain and understand the concept of economic and non-economic work. Beginning from initial to the implementation stage, it becomes difficult to explain to census personnel and respondents about what constitutes a work to be economic and/or non-economic. This is because, in many instances, we find individuals work whole day in a farm field or elsewhere without economic gain; it takes hours to collect water and firewood for family consumption and to collect fodder to feed livestock in which they realise no economic gain. In the developing world, it is also true that work performed by most individuals is unpaid work. Work performed within the household, mostly by females, is either not recognized as economic (given economic value) and even if recognized as economic for national accounting purpose, the value of such work has not been fully acknowledged at the household level. Therefore, work performed by females (mostly within household and also elsewhere) are not properly reported during enumeration, or adequately captured in statistics. In many developing countries of the world, evidences have shown under reporting of economic work, particularly under valuation of women’s work.

Population censuses have been the major source of data on economic activity of population of Nepal. Censuses of Nepal have no doubt been collecting and presenting information on economic activity of
population, but have not yet followed a set of proper and standard definition for measurement, classification and presentation of population by economically active, not economically active, employed, unemployed and so forth. Moreover, presentation of data on the subject is, occasionally, in such a way that they deviate from the standard, and are likely to confuse the users resulting in under and/or improper use of data.

In the censuses, question on economic activity of population was asked to all persons of specified age. Table 8.1 presents census year, population and the size on which question on economic activity was administered. As it appears, in the table in each census, at least three fifths of the population had to respond to economic activity questions, except in 2001. Most of the population who had to respond to the census is the workforce of the nation. Once data is collected, measurement needs to be standardized so that the product statistics is properly presented, understood and used at various levels without confusion.

Table 8.1 : Total population and population of specified age and over by census year, Nepal, 1952/54 – 2001.

<table>
<thead>
<tr>
<th>Census Year</th>
<th>Total Population</th>
<th>Age for Eco. Activity Question</th>
<th>Population of Specified Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>10 years +</td>
<td>Number</td>
</tr>
<tr>
<td>1952/54</td>
<td>8,235,079</td>
<td>10 years +</td>
<td>6,003,359</td>
</tr>
<tr>
<td></td>
<td>---</td>
<td>15 years +</td>
<td>5,069,434</td>
</tr>
<tr>
<td>1961</td>
<td>9,412,996</td>
<td>10 years +</td>
<td>6,720,057</td>
</tr>
<tr>
<td></td>
<td>---</td>
<td>15 years +</td>
<td>5,659,931</td>
</tr>
<tr>
<td>1971</td>
<td>11,555,983</td>
<td>10 years +</td>
<td>8,178,620</td>
</tr>
<tr>
<td>1981</td>
<td>15,022,839</td>
<td>10 years +</td>
<td>10,517,888</td>
</tr>
<tr>
<td>1991</td>
<td>18,491,097</td>
<td>10 years +</td>
<td>12,977,612</td>
</tr>
<tr>
<td>2001</td>
<td>22,736,934</td>
<td>10 years + Estimated population in sample 33,61,730</td>
<td>14.8</td>
</tr>
</tbody>
</table>


In a country like Nepal, where labour force survey is only occasional undertaking, censuses have been the major source of economic activity data. It is very logical, therefore, to collect adequate statistics in the census and diagnose how workforce of the nation spend their time over the year, allocate them on standard classification, and make a realistic plan for utilizing national human resource.
8.3 Literature Review

8.3.1 Concepts of Economic Activity

Although all persons consume goods and services, only a part of the entire population of a country is engaged in producing such goods and services. Obviously, the youngest and the oldest and physically and mentally incapacitated do not engage in such economic activities because of the inability to do so. The manpower of a nation then is the totality of persons who could produce the goods and services if there were demand for their labours and they desired to participate in such activities. The Economically Active is that part of the manpower which actually engages or attempts to engage, in the production of economic goods and services (Shryock and Seigel, 1971).

The concept of economic activity for the measurement of the economically active population is defined in terms of production of goods and services as set forth by the UN System of National Accounts (SNA, 1993). Activities which produce goods and services are also described in the system. The production boundary has been widened over time. According to International Labour Office (ILO) guidelines, economically active persons are persons engaged or intent to engage in the production of goods and services included within the boundary of production of the system. In the census 2001, efforts have been made to define activities in line with the current ILO standards which in turn are based on the (SNA, 1993).

A clear understanding of the concept and boundary of economic activity is fundamental to the correct application of the definition of employment, unemployment, and economically active population in surveys of households or individuals. The exact boundary between economic and non-economic activities is a matter of convention, but unless a precise line is drawn the correct statistical treatment of many situations encountered in practice can not be determined, and in consequence, the resulting statistics are more likely to be subject to controversy and to higher response errors.

As described in the System of National Accounts (SNA, 1993), activities that fall within the production boundary of the system are summarized as -
1) The production of all individual or collective goods or services that are supplied to units other than their producers, or intended to be so supplied, including the production of goods or services used up in the process of producing such goods or services;

2) The own-account production of all goods that are retained by their producers for their own final consumption or gross capital formation.

3) The own-account production of housing services by owner-occupiers and of domestic and personal services produced by employing paid domestic staff.

Note that the SNA production boundary excludes the following types of production for own consumption, they are - the own-account production of domestic and personal services by member of the household for their own final consumption. Some examples of those domestic and personal services are -

a) The cleaning, decoration and maintenance of the dwelling occupied by the household, including small repairs of a kind usually carried out by tenants as well as owners;

b) The cleaning, servicing and repairs of household durables or other goods, including vehicles used for household purpose;

c) The preparation and serving of meals; the care, training and instruction of children; the care of sick, infirm and old people; the transportation of members of the household or their goods.

Based on the concept of economic and non-economic activity, production boundary as described in the SNA, and census information on economic activity, performed by individuals in the reference year, ILO recommends a framework for measuring Usual Activity of population.

8.4 ILO Framework for Measurement

For economic activity data collected in a census, the ILO recommends a framework for measuring usual activity of population (ILO, 1990). For the measurement, the framework make use of data collected during the reference period of one year and on the basis of specified definition, classifies total population of specified age in groups and sub-groups. The recommended framework for measurement of the Usually Active Population is presented in the Figure 8.1.
The framework is a fundamental base for classifying national workforce and could be used to arrange population in various groups and sub-groups. The framework is useful to standardizes the population statistics and also enables to compare with population of other nation(s) similarly classified.

### 8.5 Census Data on Economic Activity

From a review of available questionnaire administered in population censuses of Nepal, we find data collection on economic activity of population began since the first census of 1911. But documentation and presentation of results is found only since 1952/54 census. Until census 1941, we have only census questionnaire available. The type of questions administered in those censuses reflect that effort was made to apply standard definition and collect data on economic activity, but neither questions used were adequate nor terms used were clearly defined. Similarly, reference period for which data...
refer to, minimum age for asking question is not found clearly stated in the questionnaire. Besides, some of economic activity questions were asked only to male population, females were not bothered. In census 1952/54 and after, there is a gradual progress. Attempt has been made to collect comprehensive information on economic activity of population, improvement has been made to define and explain economic, gainful and non-economic work. But again types of questions asked, the duration respondent worked in the reference year, and minimum age for respondent differ from census to census. In the past censuses, even though effort was made to define economic, non economic activity/work in line with the ILO standard, but questions administered were inadequate to collect complete information required by the standard measurement. Economically active and not economically active population was loosely defined for the tabulation and presentation of past census data.

Regarding implementation of conceptual aspect of economic non-economic activity/work, reference period used, types of questions administered, and documentation of results, census development could be arranged in four stages –

1. 1911 through 1941
2. 1952/54
3. 1961 through 1981
4. 1991 and 2001

A review of census questions, since census 1952/54, on economic activity of population, presented in the annex 8.2, we find questions administered in the census 2001 of Nepal resemble, to a large extent, with the questions of census 1991. Questions of 2001 are further elaborated to separately capture extended economic activities described in SNA as extended boundary of production and also separate question is set for those seeking job. Questions for 2001 are designed to allow more flexibility to classify population under economically active, not economically active, employed and unemployed categories, and also to allow comparison, if any possible, with economic activity data of the past.

8.6 Reference Period

In a census/survey, generally, there are two types of reference period used for collecting and measuring economic activity of population. One is the long and the other the short reference period. Long reference period is normally of one year (12 months). Short reference period is of one month or
one week or even of one day, depending on the situation and the objective of measurement. If the long reference period is used, the activity mostly performed during the reference year is termed as – Usual Activity. If short reference period is used it is termed as – Current Activity and data is used to measure “labour force participation” of population. Both long and short periods have merits and limitations. Population censuses of Nepal have mostly been collecting economic activity data by using long reference period. That means, census data on economic activity of population is collected on 12 months reference period preceding the census and, therefore, data have been largely used to measure “usual activity” of population of Nepal. Occasionally, data was collected also on short period basis (in 1952/54 and 1981) but they were not published for use. Nepal Labour Force Survey, 1998/99 used both short and long reference period for measuring activity of the workforce.

8.7 Census 2001

In the preparatory stage and during formulation of census questions, series of discussion were held among experts within and outside of CBS. The focus of discussion was primarily to simplify question on social and economic activity aspects of population. On economic activity, intention was to capture all types of activities performed by individuals, particularly performed by female(s) within and outside home during the reference period. Finally, a consensus was reached to fix questions and make it a gender responsive census. Accordingly, the census manual made possible attempt to explain, with examples in Nepalese context, economic, extended economic and non-economic activity as recommended by the SNA, 1993. Questions and response categories were formulated in such a way that the data on economic activity could be classified in accordance with the ILO definition on usual activity and allow flexibility for comparing data with the past census. Questions on economic activity were placed in Form - 2 (designed and prescribed for enumeration in sample households).

8.7.1 Census Questions on Economic Activity

To measure economic activity of population, classify them on economically active, not active, occupation, industry, status of work and reasons for not being usually active, there are 6 questions in the Form 2, for all person 10 years and over in sample households. The following two main questions (Q. 15 and 16) were used to answer the remaining 4 questions (Q. 17,18, 19 and 20). The main questions are –
**Q 15. In the last 12 months, what was the …… (person) usually doing?**

Enumerator was instructed to ask and confirm usual activity performed as described in census manual, and mark only one activity, among eight response categories listed in the schedule. Response categories provided are –

1. Own agricultural activity
2. Wage/salary earning
3. Own non-agricultural activity
4. Extended economic activity
5. Seeking economic job
6. Household chores/duties
7. Study/Training
8. Did not do any of the above

The marked activity would be the activity the person was usually doing during the reference year.

**Q 16. In the last 12 months, how many month(s) did ……. (person) do/performed the following types of work/activity?**

Category of activities are ---

1. Economic activity (response categories 1, 2 and 3 in Q. 15) …… month
2. Extended economic activity (response category 4 in Q. 15) …… month
3. Looking for /seeking economic job (response category 5 in Q. 15) …… month
4. Did not do any economic work (response categories 6, 7 and 8 in Q. 15) …… month

Total 12 months

Note : To simplify the presentation four response categories, numbered 1, 2, 3 and 4 in question 16, are presented as response a, b, c and d respectively in boxes of figure 8.2, figure 8.3 and the annex 8.1.

Instruction to enumerators was to compute total time, in month, spent in doing any of activity during the reference period of 12 months and then write number of month(s) in the respective category. Total month(s) declared in each of the four response categories, added together must equal 12 months, the reference period preceding the census.
Now, by definition of economic and non-economic activity/work, number of month(s) spent in performing activities of economic value declared in response category 1 and 2 (economic activity and extended economic activity), in question 16, during the reference period of 12 months preceding the census, constitute total months spent in doing economic activity/work. Similarly, number of month(s) declared in 3 constitute time spent in seeking economic job/work, and month(s) declared in 4 constitute time spent in doing non-economic activity, such as study/training, household work and/or non of any activity at all declared in 1, 2 and 3, during the reference year.

8.7.2 Census 2001 Data Within and Beyond the Framework

Number of month(s) stated in each of the four response categories, in question 16, by an individual of age 10 years and over, provides us empirical information on how workforce of the nation spent their time during the reference year. It would, therefore, be a rational approach to arrange all possible combination of months declared in four response categories, in question 16, in such a way that each individual enumerated in the census fits in the classification of ILO Framework, given in Figure 8.1.

Such an arrangement of four response categories and all possible combination of month(s) likely to be reported in corresponding responses is presented in the Annex 8.1 and economic activity data obtained from the census has been logically fitted in the framework. As the data for economic activity of population come from sample households of the census 2001, estimates of population are, accordingly, presented in various classification of the Framework in the Figure 8.2. The arrangement, presentation of the response categories and combination of stated time (in month) is made in such a way that the fitted 2001 economic activity data in the framework can easily be understood.

The presentation is the only initial classification according to the standard definition. Further classifications, such as – occupation, industry, status of employment of economically active, and reason for not being usually active for those not usually economically active by sex, age etc. can readily be made on this standard base. Fitting of population data of 2001 in the framework has also enabled us to compute rates for conventional measurement, such as - economically active, not economically active, employed, unemployed and so forth.
Figure 8.2
Census 2001 data fitted in the ILO framework

<table>
<thead>
<tr>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>(10 years of age and above)</td>
</tr>
<tr>
<td>(1,677,0279) 100.00 %</td>
</tr>
</tbody>
</table>

Population **Economically Active** at some time during the year
{in this case time in response category (a+b+c) > 0 month}
Population (1,063,7239) 63.4 %

Population **Not Economically Active** at all during the year
{in this case time in response category (a+b+c) = 0 month or category d = 12 months}
Population (613,3040) 36.6 %

Number of months of employment or unemployment > specified minimum duration (in this case 6 months)
{or time in response category (a+b+c) ≥ 6 months}
**Usually Active**
Population (97,61,476) 58.2 %

Number of months of employment or unemployment < specified minimum duration (in this case 6 months)
{or time in response category (a+b+c) < 6 months}
**Not Usually Active**
Population (8,75,762) 5.2 %

Number of months of employment ≥ Number of months of unemployment
{time in category (a+b) ≥ time in category c}
**Employed**
Population (89,01,391) 53.1 %

Number of months of employment < Number of months of unemployment
{(time in category (a+b) < time in category c)}
**Unemployed**
Population (8,60,086) 5.1 %

Note: Population number is given in parenthesis, percentages are per cent of the total population 10 years and over. To simplify the presentation response categories 1, 2, 3 and 4 in question 16 are presented as a, b, c and d respectively in figures 8.2 and 8.3.

The arrangement of response categories and computation of all possible combination of months reported in those categories not only facilitated to fit the economic activity data in the framework but also legitimately allows us to go beyond for a logical classification. For each set of classification of the framework, the beyond classification tells us how individuals spend their time – whether worked for some time, looked for job or remained economically idle and for how long. The value of beyond classification will be realised more when we go for resource planning at the micro levels, such as – rural, urban, region, districts etc. One such beyond classification is presented in the figure 8.3 where priority for classification is given to the first three response categories i.e. number of months doing economic activity, extended economic activity and seeking job. Estimates of population 2001, for each beyond classification, are presented in the same figure 8.3.
Figure 8.3
Census 2001 data fitted in the framework and beyond

<table>
<thead>
<tr>
<th>Total Population</th>
<th>Population Not Economically Active at all during the year</th>
</tr>
</thead>
<tbody>
<tr>
<td>(10 years of age and above)</td>
<td>(in this case, time in response category (a+b+c) = 0 month or response d = 12 months)</td>
</tr>
<tr>
<td>(1,67,70,279) 100.00 %</td>
<td>Population (61,35,040) 36.6 %</td>
</tr>
</tbody>
</table>

- Population Economically Active at some time during the year
  - in this case, time in response category (a+b+c) > 0 month
  - Population (1,06,37,239) 63.4 %

- Population Not Economically Active at all during the year
  - in this case, time in response category (a+b+c) = 0 month or response d = 12 months
  - Population (61,35,040) 36.6 %

Number of months of employment or unemployment > specified minimum duration (in this case 6 months)
- (a+b+c) ≥ 6 months
- Usually Active
- Population (97,61,476) 58.2 %

Number of months of employment or unemployment < specified minimum duration (in this case 6 months)
- (a+b+c) < 6 months
- Not Usually Active
- Population (8,75,762) 5.2 %

Number of months of employment ≥ Number of months of unemployment (time in response category (a+b) ≥ time in response c)
- Employed
- Population (89,01,391) 53.1 %

Number of months of employment < Number of months of unemployment (time in response category (a+b) < time in response c)
- Unemployed
- Population (8,60,086) 5.1 %

Response (a+b) = 0 month
- Population (54,313) 0.32 %
  - id not work at all but looking for work for some time

Resp (a+b) > 0 months,
- Population (8,21,449) 4.9 %
  - Though worked for some time remained idle most of the time.

Response (a+b) ≥ 6 months
- Population (87,36,111) 52.1 %
  - Employed most of the time

Response (a+b) < 6 months
- Population (1,65,280) 0.98 %
  - Not Employed most of the time

Response (a+b) > 0 months
- Population (1,77,352) 1.06 %
  - Worked for some time

Response (a+b) = 0 month
- Population (6,82,734) 4.07 %
  - Did not work at all

Response c = 6 months
- Populn. (5,72,394 ) 3.41 %
  - Looked for work half of the time

Response c < 6 months
- Population (31,355) 0.19 %
  - Looked for work half of the time

Response c = 6 months
- Population (1,10,340) 0.66 %
  - Looked for work/ job most of the time

Response c > 6 months
- Population (11,650) 0.07 %
  - Looked for work most of the time

Response c = 6 months
- Population (47,404) 0.28 %
  - Looked for work most of the time

328
It is obvious that, in the framework for measurement of the usually active population, we have validly fitted data obtained from census 2001. We could go further and classify data beyond the framework as per our need. Moreover, classification beyond the framework not only facilitates us to understand comprehensively how the workforce of the nation utilized their time, it also helps us to comprehend how data published in the National Report deviate from the standard. We may also investigate possibility for comparing 2001 data with data of similar nature obtained from past censuses. It is needless to emphasize the importance of such a comprehensive statistics for human resource planning and develop program of action for generating employment not only at the national level but would be much more important while planning at the grassroots level.

In Figure 8.2 and 8.3, number of persons and corresponding percentages given in each category are self-explained. After fitting economic activity data in the framework, we find that among 16.8 million persons of Nepal, 10 years of age and over, 63.4 per cent are economically active at some time and 36.6 per cent are not economically active at all during the reference year preceding the census. Among the workforce, 58.2 per cent are usually active and 5.2 per cent are not usually active. The census revealed estimated unemployed is 5.1 per cent of the total population 10 years & over of the country.

In addition, some important indicators about population of Nepal can be derived from the combination structure presented in annex 8.1. Among 16.8 million person 10 years and above - (during the reference period of 12 months preceding the census)

a. Who did not do any economic work at all (months declared in response a and b = 0) were → (68,70,087) 40.96 per cent

b. Who did not look at all for economic work (months declared in response c = 0) were → (1,47,57,196) 88.0 per cent

c. Who did not remain economically idle (months declared in response d = 0) were → (67,37,114) 40.2 per cent

d. Who did only economic work during the year (months declared in response a and b = 12) were → (60,94,888) 36.3 per cent

e. Who were looking for economic work all time (months declared in response c =12) were → (77,431) 0.46 per cent
f. Who did not do any economic work all the time or not economically active at all (months declared in response \(d = 12\)) were \(61,33,040\) 36.6 per cent.

g. Who did not work at all but looked for work for some time (months declared in response \((a+b) = 0, c > 0\)) were \(7,37,047\) 4.4 per cent.

Note: Population in parenthesis, percentage are per cent of total population age 10 years and over.

### 8.7.3 Published Data Census 2001

The Central Bureau of Statistics thus far published results of census 2001 in National Reports, Population Census Results in Gender Perspective and Gender Statistics at a Glance (A fact Sheet, Population Census 2001). An overview of data on economic activity of population presented in published documents we find that they could not follow standard definition, loose consistency with each other in terms of nomenclature and classification used in data tables. Data could be made and used meaningfully if they are presented— a. in accordance with the standard, b. are consistent and c. made comparable with data obtained from other sources.

In the National Report, there are four basic tables (second part Table 23, 24, 25 and 36), relating to economic activity, other tables are based on table 24. If wisely used, data presented in those tables have own meaning and value, but they lack supporting definitions, explanatory notes and data depart from standard classification, loose consistency and comparison with the past. It is true that we could not pay much attention to the sensitivity of the subject and lack of exercise at the time of data tabulation and presentation, data classification deviate from the standard. Nevertheless, in some publications efforts have been made, at the initial stage, to classify these data in line with ILO standard. But in the later stage they also deviate from the track of standard. Hence, users of economic activity data are likely to be confused and must be aware of these anomalies. To clarify, data in Table 23 in the National report is based on responses on question 15 which is the activity a person was usually doing during the reference year preceding the census. Since data in Table 15 is based on usual activity performed, it does not fall under the purview of the framework. While data in Tables 24, 25 and 36 are based on question 16 (reported month/s by type of activity performed), we can classify and examine the data under the classification of the framework presented in the Figure 8.3. And at the same time we see how and where they deviate from the track of the standard.
In fact, it is relevant here to provide a brief definition for these data tables presented in the National Report. Population in Table 24 are those whose response on question 16 in category \((a + b)\) is > 0 month. Data in Table 25 is classification of total population in the first two groups in the framework, i.e. population economically active at some time, response category \((a + b + c) > 0\) month, and not economically active at all, \((a + b + c) = 0\) month. Population in Table 36 are those whose response in category \((a + b)\) is < 6 months, where response category \(a, b, c\) and \(d\) are as given in the Annex 8.1. Because, these stated four data Tables are generated from different data definitions, data must be used carefully and cautiously.

8.8 Comparison of 2001 Data with the Past

It is judicious to examine whether 2001 data on economic activity can be compared with economic activity data of the past. From a review of published census documents, we find data on economic activity of population collected in censuses of Nepal has suffered comparison over time due to changes in definition of economically active, not economically active population from census to census. In this context we can sight one example. The author did some exercise on economic activity data obtained from 1981 and 1991 censuses of Nepal to compare percentage of economically active population by applying the same definition. To measure economically active and not active, the 1981 census used the criteria – who did economic work at least for 8 months during 12 months preceding the census, was Economically Active. But census 1991 used another criteria - who did economic work even for less than 3 months, during 12 months period preceding the census, was Economically Active. According to the definition of each census, per cent of economically active population was shown 65.1 and 56.6 in 1981 and 1991 respectively. But if we use the 1981 definition, the per cent economically active in 1991 comes out to be only 36.8 (Niroula, 1994) which is much lower than the stated figure, 56.6. In this regard, data from census 2001 is not the exception. Census 2001 adequately collected economic activity data to apply standard measurement and allow possibility for comparison. But data presented in the National Report could not be made comparable directly with the past census data. However, there are possibilities for comparing 2001 data with the past, to some extent, if definitions of the data are carefully examined.

8.9 Quality of Statistics

Like other demographic statistics, statistics on the working force are subject to errors from various causes. Despite their limitations and the errors of measurement, labour force statistics collected in a
census/survey have proven themselves highly useful. In the underdeveloped countries, the conceptual difficulties, operational clarity of economic and non-economic work/activities seems to be a more basic problem. At the operational level, in addition, response error such as - reporting of activity performed by individuals and computation of time for each activity performed may not be very precise and under reporting of activities, particularly performed by females, need not be over emphasized. Inconsistency in classification has affected both quality and uses of economic activity data of Nepal.

8.10 Uses and Limitations of Data

Census statistics on the economically active population are especially useful in those countries that do not have a highly developed system of economic statistics from establishment sources. Planning for economic development is a very important use of such statistics. Statistics on economic activity provide much of the description of a nation’s or of a region’s human resources. Similarly data on occupational characteristics cross tabulated with other variables provide tremendous amount of information for economic planning and human resource utilization. Other uses of economic activity data are also described in literatures (UN, 1958; Shryock and Siegel, 1971).

The analysis of statistics on the economically active population is subject to limitations, both with respect to the changes in definition employed, and to the methods of compiling data. Data lack comparability with the results of the past censuses and sample household surveys because of different concepts, definitions, and the processing procedures applied. Similarly, time series data on economic activity is not strictly comparable, the reason we have mentioned.

8.11 Summary Conclusion

Since the history of census taking, Nepal collected data on economic activity of her population. But the concept and definition of economic and non-economic activity/work used, type of questions administered, reference year and duration worked during the reference year, age of respondent to ask question changed from time to time. Over time and till 1991, attempts have been made to apply standard concept to define economic, non-economic activity/work, but basic questions were not
properly addressed and adequately designed to collect data and apply standard measurement. However, in 2001, after series of discussion effort was made to design and administer adequate number of questions to meet requirements of the standard measurement and classification of economic activity data.

By a close scrutiny of definition applied to collect economic activity data and examination of requirements of standard definition and classification, we are convinced that economic activity data generated by census 2001 meets the requirement of standard classification. Accordingly, therefore, fitting exercise of 2001 data has been completed and concurrently estimates of population according to the ILO Framework are presented in the Figure 8.2. Moreover, in this exercise, it has also been possible to classify the workforce beyond the framework, and see how they used their time (based on stated four response categories) during the reference year. An exhaustive structure (combination of activity/work and time, in month, an individual spent performing different type of activity during the reference period of 12 months) to look at both the “Framework and Beyond” is presented in the annex 8.1 which facilitates us to search and analyse activities of population during the reference year. An example of the analysis is presented in the figure 8.3.

The exercise is the first of its kind in the history of analyzing census data on economic activity of population of Nepal. The exercise has, in fact, not only resolved the long felt but unsolved problem on standardizing data on economic activity of population collected by population censuses of Nepal but also provided clear guidelines for collection and presentation of economic activity data in the future censuses. The issue of improving quality of data, however, remains. Quality can be improved gradually by educating census personnel, particularly educating enumerators and respondents through training and publicity of topics under investigation before census enumeration.

As the population classification is based on standard, this exercise provides a solid base to understand statistics on activities of the workforce, design population policy and formulate plan of action for generating employment at the national and grassroots level.
References


Annex 8.1: Combination of response categories and stated month(s), Census 2001.

Question no. 16 (in Form 2, for Sample Households)

In the last 12 months, how many months did ….. do/performed the following types of work?

Response category
a. Economic Activity ……… Month
b. Extended Economic Activity ……… Month
c. Seeking for Economic Job ……… Month
d. Did not do any Economic Activity ……… Month

Total 12 Months

<table>
<thead>
<tr>
<th>Combination of response category</th>
<th>Combination of month stated in each response category during the reference period of 12 months</th>
</tr>
</thead>
</table>
| (a+b+c) = 0 month                | (a+b) = 0  
                                    | c = 0  
                                    | d = 12  |
| (a+b+c) = 1 month                | (a+b) = 1  
                                    | c = 0  
                                    | d = 11  |
| (a+b+c) = 2 months               | (a+b) = 2  
                                    | c = 0  
                                    | d = 12  |
| (a+b+c) = 3 months               | (a+b) = 3  
                                    | c = 0  
                                    | d = 12  |
| (a+b+c) = 4 months               | (a+b) = 4  
                                    | c = 0  
                                    | d = 12  |
| (a+b+c) = 5 months               | (a+b) = 5  
                                    | c = 0  
                                    | d = 12  |
| (a+b+c) = 6 months               | (a+b) = 6  
                                    | c = 0  
                                    | d = 12  |
| (a+b+c) = 7 months               | (a+b) = 7  
                                    | c = 0  
                                    | d = 12  |
| (a+b+c) = 8 months               | (a+b) = 8  
                                    | c = 0  
                                    | d = 12  |
| (a+b+c) = 9 months               | (a+b) = 9  
                                    | c = 0  
                                    | d = 12  |
| (a+b+c) = 10 months              | (a+b) = 10 
                                    | c = 0  
                                    | d = 12  |
| (a+b+c) = 11 months              | (a+b) = 11 
                                    | c = 0  
                                    | d = 12  |
| (a+b+c) = 12 months              | (a+b) = 12 
                                    | c = 0  
                                    | d = 12  |

Note: To simplify the presentation and without losing required information, response categories a and b are combined in one group.
Annex 8.2: To collect information on economic activity of population questions administered since 1952/54 census of Nepal are presented below (questions administered were in Nepali language) -

**Census 1952/54**

Individual Schedule

(Question on economic activity asked for all individuals, lower age limit not mentioned, data available for age <15 years, 15 years and over)

*Question 8. Do you earn for own living? 1. Yes 2. No*

If yes,

a. What was the occupation? What type of work did ….. do in that occupation?

b. What was the status of work?

1. Employer
2. Employee
3. Own account worker

*Question 9. If ….. does not earn for own living in q. 8, what is the occupation of the person who earns for …..’s living? What type of work s/he did in that occupation?*

*Question 10. A. Does ….. work these days? 1. Yes 2. No*

If no,

B. What is the reason?

**Census 1961**

Individual Schedule

(Question asked for all individual age 15 years and over)

*Question 13. a. (During the year preceding the census) Did ….. do any economic work for at least 7/8 months? 1. Yes 2. No*

If no,

b. What was the reason for not doing economic work?

1. Household duties
2. Old Age
3. Study
4. Physically disabled
5. Chronic disease
6. Maharogi
7. Mentally retarded
8. Prison/orphanage
9. Pension/income etc.
10. Others
If Yes in Q. 13a,

**Question 14. What was …… ‘s Occupation (type of work)**

**Question 15. What was …… ‘s Industry of work**

**Question 16. What was …… ‘s status of work ?**

1. Employers  
2. Own account worker  
3. Employee  
4. Unpaid family worker.

**Census 1971**

Individual Schedule  
(Question asked for all individual age 10 years and over)

**Question 15. Did ……. do any economic/ gainful work ?  1. Yes  2. No**

If yes,

a. In which district ……………………

b. Occupation ……………………

c. Industry ……………………

d. Status of Work  
1. Employer  
2. Employee  
3. Own account worker  
4. Unpaid family worker.

If no,

**Question 16. What was the reason……was  not doing economic/gainful work?**

1. Household duties  
2. Study  
3. Old age  
4. Chronic disease  
5. Maharogi  
6. Physically disabled  
7. Mentally retarded  
8. Prison/orphanage  
9. Pension/income etc.  
10. Others
Census 1981
Individual Schedule
(Question asked for all individual age 10 years and over)

Question 20. (in the last week) Did …. Do any economic work?  1. Yes  2. No

If no,
Question 21. Did … look for any economic work?
  1. Yes  2. No

Question 22. (in the last 12 months) Did …. Do any economic work for at least 8 months?
  1. Yes  2. No

Question 23. (In the last 12 months) If …… did not do any economic work for at least 8 months, what was the main reason for not doing economic work?
  1. Household duties
  2. Study
  3. Old age
  4. Chronic disease
  5. Physically disabled
  6. Mentally retarded
  7. Prison/orphanage
  8. Pension/income etc.
  9. Looked for economic work
  10. others, specify …..

If yes in Q. 22,
Question 24. What was the Occupation ………

Question 25. What was the Industry of work ………

Question 26. What was the Status of Work
  1. Employer
  2. Employee
  3. Own account worker
  4. Unpaid family worker.
**Census 1991**  
Individual Schedule  

(Question asked for all individual age 10 years and over)  

In the last 12 months preceding the census,

**Question 18. What type of work (economic or non-economic) ….. was usually doing?**

1. Own agricultural activity  
2. Wage/salary earning  
3. Own non-agricultural activity  
4. Did not do any economic work.

**Question 19. How many months did ….. do economic work (response 1, 2 and 3 in Q. 18)?**

1. Eight months and above  
2. 6 to 7 months  
3. 3 to 5 months  
4. Less than 3 months

If response 1 or 2 or 3 in Q. 18,

**Question 20.** (during the reference period) **What type of work did ….. usually do (occupation) …..**

**Question 21. Where did ….. Worked (industry) …..**

**Question 22. What was…. ‘s status of work**

1. Employer  
2. Employee  
3. Own account worker  
4. Unpaid family worker.

If response 4 in Q. 18,

**Question 23. What was the main reason for ….. not usually doing economic work ?**

1. Household duties  
2. Study  
3. Old age  
4. Pension/income etc.  
5. Physically /mentally sick  
6. Prison/orphanage  
7. Other (specify) …..
**Census 2001**

**Form 2 (for Sample Households)**

(Question asked for individuals of selected household age 10 years and over)

**Question 15. In the last 12 months, what was the …… usually doing?**

1. Own agricultural activity
2. Wage/salary earning
3. Own non-agricultural activity
4. Extended economic activity
5. Looking for/seeking economic job
6. Household duties
7. Study/Training
8. Did not do any of the above.

**Question 16. In the last 12 months, how many months did ….. do/performed the following types of work ?**

1. Economic activity ……… month(s)
2. Extended economic activity ……… month(s)
3. Looking for / seeking economic job ……… month(s)
4. Did not do any economic work/activity ……… month(s).
   Total 12 months.

**Question 17. What type of work did …. Do (occupation)**

**Question 18. Where did …. work (industry) ……**

**Question 19. What was…..’s status of work**

1. Employer
2. Employee
3. Own account worker
4. Unpaid family worker.

**Question 20. What was the main reason for not usually doing economic work ?**

1. Study/training
2. Household duties
3. Old age
4. Pension/income
5. Physically/mentally disabled
6. Sick/chronic disease
7. Others ………