

ONE HUNDRED YEARS OF CENSUS TAKING IN NEPAL: THE 2011 CENSUS

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1 Introduction

In Nepal, like in many other countries, population censuses have been taken every ten years or so. Since the first population count of 1911, nine more censuses have been conducted so far. The earlier censuses of Nepal are considered less precise as compared to the modern ones. Four censuses taken before the 1952/54 census, for example, are considered “head counts” only. The 1952/54 census was taken in two parts of the country in two different years. Then a synchronized census was taken in 1961. After 1961, a census has been taken in every ten years. The last census in this series is the 2001 census.

Compared to the early censuses, the modern censuses of Nepal are becoming more popular. The Constitution of the Kingdom of Nepal, 2047 (1990) has increased the importance of the Nepali Population Census. According to the Constitution, the number of seats in the “House of Representatives” from each of the 75 administrative districts is determined on the basis of the population census. The provision in the Constitution reads as follows:

“...the ratio of the number of seats allocated to any district shall be, so far as practicable, equal to the ratio of the population of that district to the national population, as determined by the last census preceding the concerned election...”

(Sub-article (2) of Article 45, Part 8 of the Constitution of the Kingdom of Nepal, 2047)

Although, for the purpose of the Constitution it might seem that head count is sufficient, the modern population censuses of Nepal are more than the head counts. They provide a wealth of information on the state of the population in the country. This paper presents a general perspective on the upcoming 2011 census of Nepal primarily based on the experiences of the last census of 2001.

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2 Population Censuses of Nepal

The 2001 census marked the ninety years of population counting in Nepal. During these 90 years, the population of the country grew phenomenally. In 1911, the population of Nepal was 5,638,749 which increased more than four times and reached 23,151,423 in 2001. On the average, the population of Nepal grew at a rate 2.00 percent per annum during the 90-year period. The population of Nepal took 60 years to double from 5.6 million in 1911 to 11.6 million in 1971. It then took only 30 years to double from 11.6 million to 23.2 million, and at the present rate of growth it will double again in another 31 years.

Population density in the country has also increased remarkably. In 1911, the population density of the country was less than 40 persons per square kilometer. By, 2001 the figure had risen to 157 persons for the same area. Table 1 presents a summary of the population changes in the country during the period of 90-year along with the projected figures for the year 2011.

Table 1: One Century of Population Change in Nepal, 1911-2011

Census Year	Population	Between-census change in population		Geometric growth rate (percent)	Persons per sq. km.
		Number	Percent		
1911	5,638,749	-	38.31
1920	5,573,788	-64,961	-1.15	-0.13	37.87
1930	5,532,574	-41,214	-0.74	-0.07	37.59
1941	6,283,649	751,075	13.58	1.16	42.69
1952/54	8,256,625	1,972,976	31.40	2.30	56.10
1961	9,412,996	1,156,371	14.01	1.65	63.96
1971	11,555,983	2,142,987	22.77	2.07	78.52
1981	15,022,839	3,466,856	30.00	2.66	102.07
1991	18,491,097	3,468,258	23.09	2.10	125.64
2001	23,151,423	4,660,326	25.20	2.27	157.30
2011*	28,584,975	5,433,552	23.47	2.13	194.22

*Projection (Medium Fertility Decline Variant)

Sources: Central Bureau of Statistics, 2003. Population Monograph of Nepal,

Central Bureau of Statistics and Ministry of Population and Environment, 2003. Population Projections for Nepal 2001-2021.

3 Population Census 2011

National Population Census 2011 will be eleventh in a series of the population enumeration in Nepal. Moreover, this census marks one hundred year of census counting in the country. The number of households to be counted in this census is estimated at about 5 million spread over more than 36 thousand wards (the lowest administrative units in the country).

Population census, in general, furnishes current population data with many other demographic, social and economic variables. The basic objectives of the 2011 population census as in the previous census will be:

- a. to develop a set of benchmark data,
- b. to provide data for small administrative areas,
- c. to provide reliable frames for sample surveys,
- d. to provide sex disaggregated data on different variables,
- e. to provide information on women, children, and the aged, and
- f. to provide information on caste and ethnic groups.

3.1 Features of the 2011 Census

Population census is a regular decennial event that follows standard international practices. In general, departure from one census to the other is minimal. As such, the 2011 census will also be comparable to the 2001 census. In the 2001 census, special attention was given to the issues related to gender, women, and children. On economic aspects, the household work and the extended economic activity were redefined and emphasized to overcome the under reporting and under coverage of both male and female participation in the national economy. In addition to this, mass media campaign was extensively used for census publicity and gender sensitization was emphasized during the training of field staff.

Among other things, the 2011 census will give special thrust on the following.

- (i) Gender sensitization and women's empowerment issues,
- (ii) Combined way of data collection (complete and sample enumeration),
- (iii) Wide publicity and dissemination.

4 Planning and Administration

4.1 Census Planning

A population census is one of the largest statistical operations carried out by the Central Bureau of Statistics (CBS) of His Majesty's Government of Nepal. It is a real challenge for a developing country like Nepal. In order to conduct a reliable census by covering the whole country within a specified duration, a large number of skilled persons are needed. It is very essential to build an appropriate census organization. It needs advance preparation well ahead of the field enumeration phase.

Planning for the 2011 census is scheduled to start from the next year (2006). As the proper planning of the census is fundamental for its successful implementation, a detailed calendar of operation will be prepared. Various activities to be considered at the time of planning stage include – estimates of cost for census activities with schedule, check list for the activities, preparatory works (including methodology, questionnaires and manuals etc.), stakeholder and technical committee meetings, and census field organization, staff recruitment and training, census listing and enumeration, data processing, tabulation, analysis, evaluation, printing of reports and dissemination of results and documentation. For all these activities, stepwise planning is essential.

4.2 Notification in the Nepal Gazette

Legal provision of the census is one of the important aspects for empowering the census operation. The Statistics Act, 2015 has mandated the Central Bureau of Statistics for the "collection, consolidation, publication and analysis of statistics". In accordance with the Act, the Government may by notified order issue direction for the collection of statistics "concerning any matter". Notified order means an order published in the Nepal Gazette.

In accordance with provision of the Statistics Act, a notified order will be issued for the 2011 census. By this notice, the Central Bureau of Statistics would be empowered to collect the demographic, socio and economic information of the population of the country as of the census schedules within the period specified by the Bureau. The recruitment of the staffs along with their duties and responsibilities will also be clearly provided in the notification. In addition, the duty of the general public to help and to co-operate the census work will be emphasized. Bureau's liability for the preparation of the final report of the census after data processing will also be stated in this official notification.

4.3 Census Administration, Organization and Staff

As census is a decennial activity requiring huge resources, most of the census activities have to be carried out on an adhoc basis. For this, it is very important to have a strong organization for the smooth running of the census operation. The 2011 census organization will be visualized and set up, so as to conduct the census within a specified time frame covering all 75 districts of the country, and more than 36 thousand enumeration areas. District Census Offices will be established in all districts. Based upon the population estimates, each district will further be divided into several area offices. All the District Census Offices will eventually be supervised and controlled by the Bureau.

In total around 32 thousand staff will be involved in the census. Out of these, about 24 thousand enumerators are required for a period of one month. In a similar manner about 6 thousand supervisors are required for the field work. Accountants, office clerks, janitors and peons are among other staff required for the field offices. Female enumerators will be encouraged to work in each level.

4.4 Training

Various levels of training will be organized for different levels of staffs in the census at different points of time. These include the training of the master trainers, district census officers, area supervisors, field supervisors and enumerators. To start with, a group of master trainers will be trained in the Bureau. These training will, inter alia, be mainly focused for maintaining uniformity on the census procedures, terms and definitions used in the census questionnaires and developed understanding among all the trainees.

5 Census Mapping

In the absence of the good enumeration area (EA) maps, it is very difficult to conduct the census and achieve the complete coverage and enumeration of the whole country. For the 2001 census, maps up to the VDC and municipality level with ward boundary delineation were prepared. It was an improvement in the part of census mapping compared to the previous censuses. For large wards of the VDC's the maps were further divided into sub-wards of about equal sizes so as to make the enumerator's workload more homogeneous. The scales of maps ranged between 1:10,000 and 1:60,000 depending upon the size of the area. 405 VDC wise maps were completed by the project using conventional mapping methods due to incomplete database for those VDCs. In addition to this 75 district maps showing the VDC/Municipality boundary and other features were prepared. Zonal planning maps were also prepared for 14 zones of the country. For the urban areas orthophoto maps were prepared for the dense urban areas and semi dense urban areas. Altogether 2,000 orthophoto maps were prepared in each of which areas were represented in 1:1000 scale.

These maps although very helpful for the enumeration purposes, are not sufficient for enumeration area delineation. Further work is necessary to improve upon these maps. In this regard, there is a plan to strengthen the Cartography and GIS unit of the Bureau.

6 Census Publicity

As in the 2001 census, the publicity program of the upcoming census will start with an aim to plan "an effective publicity campaign for the census against the prevailing social and economic background". Publicity programmes will be targeted to increase the willingness of the respondents to cooperate the enumeration. The programmes will be focused towards informing the public about the uses of and importance of census data. Further, the campaign will be aimed to encourage the respondents to correctly answer the questions asked in the census.

Main objective of the publicity programme will be "to create awareness for all respondents on the population census 2011". While most of the techniques and procedures used for the 2001 census will be considered for the 2011 census too, a number of changes will be made in the light of lessons learned and the media available in the country. The total public information campaign will be a multimedia effort, involving radio, newspapers, television, posters, pamphlets and bulletins. Radio, television, newspapers, cinema, postal stamps, public places campaigning, alternative media (like *Gaine*) will be the main media vehicles for the 2011 census.

A census theme message will be developed and used for the publicity campaign. The theme used in the 2001 census was - "*afnaflnsf, dlxnf k'?if, a[Wb a[Wbf, sf]xL g5'6'g\, sf]xL gbf]xf]l/pg*" (Let non of the children, adults and old age people be left out and non of them be repeated in the census counting). Besides, some short jingles also were prepared for the previous census publicity.

Census publicity will be extensively done through all types of available means. Print and audio visual media will be profoundly used all over the country. In the print media: newspapers, posters, pamphlets, calendars, stamps, stickers with census logo are important for the census publicity. Radio spots, theme song, TV spots and Teleflex will be publicized through radio and television. In addition to the regional seminars, local level seminars and meetings were also organized before the census. In this manner census publicity will be one of the major event in the process of conducting the census.

As in the 2001 census, a message from the head of the Government in the name of the nation (highlighting the importance of the National Population Census 2011) will be delivered. Besides, there is thinking to observe the “census day” as a national holiday (as was done in the 2001 census).

7 Census Enumeration and Quality Control

The individual enumeration will be conducted during the month of June, 2011. The reference date of the census (or the census day) will be the sunrise of 22nd June 2011 (8th Ashadh 2068 of Nepali calendar). The homeless persons will be counted on the day before the census day.

On the average, one enumerator will have to visit the designated enumeration area(s) covering on about 220 households and about 1,200 persons. One supervisor will be appointed for every 4 enumerators, on the average. The overall supervision of the district will be assigned to the district census officer.

8 Dispatch and Collection of Census Materials

In order to store the large volume of census questionnaires and forms and keep them systematically for distribution before the census and store the census returns (filled in questionnaires and other forms) properly, large space is needed. As there is not enough space available in the Bureau and its premises, a separate provision should be made for this purpose. Dispatching the census questionnaires to the districts offices is an immense job. As in the previous census, this should be accomplished with the help of the private transport companies, courier services and the staffs of the CBS. Airlifting is also required in the remote districts of the country.

It is a very tedious work to store and manage the questionnaires collected from 75 districts. Collection of questionnaires and verifying the numbers with district, VDC and wards is very time consuming. Missing questionnaires creates another problem. It is necessary to verify data carefully. Similarly, proper inventory of outgoing and incoming questionnaires during the data processing is an important job.

As mentioned above, the upcoming census will have to collect detailed information from about 5 million households and 28 million individuals using short form and one million households and 5.6 million individuals using long form. It is estimated that, altogether more than 125 tones of census materials will be prepared for the 2011 census.

9 Data Processing

Data processing, in general, involves the following steps: collection and management of filled in questionnaires at the CBS, manual data editing and coding, data entry and verification, computer data editing, processing and tabulations.

Due to the limited physical facilities like space, computers and personnel that are available at the CBS, data entry along with coding and editing works of the census questionnaires will have to be contracted out to private agencies as was done in the 2001 census. The data entry agencies will be required to work under the close supervision of the CBS officers and a suitable mechanism to monitor the data entry work will be developed by the CBS.

Estimated time for data entry is about 6 months. Nearly 500 micro-computers will be required for the data entry work. And an equal number of coding and data entry operators will have to be hired and trained for the job.

At the CBS basically two types of check will be done: completeness of data and accuracy and consistency of data. Missing wards (if any) will be determined after a thorough check of the questionnaire for each ward. It is a time consuming and laborious work. Data edit program will be prepared by the CBS. Using this programme a summary list of errors for each district will be prepared and if the error rate is found outside the acceptance limit the data entry will be re-verified. Nearly two percent of the entry completed questionnaires will be verified. During verification, if the percentage of error found is higher than the tolerance limit then the data entry work will be repeated in such wards. In this process, supervisors are required to physically check the questionnaires.

10 Data Dissemination

The function of the publication phase is to make data available to data users as quickly as possible after collection, while maintaining the Bureau's standards of statistical quality, reliability, and comparability. The plan for the 2011 publication will be similar to the previous census except for the addition of some new dissemination strategies.

Apart from the traditional methods of data dissemination other modern methods will be used in the 2011 census. These include: workshops at the centre as well as at the regional levels. More than this CBS will disseminate data in electronic media. Census results first published in hard copies will also be made available in compact diskettes (CD's).

Wide range of information will be collected in 2011 Population Census. In order to meet the demand of the users, attempts will be made for providing these data to the users by various modes. The Bureau has planned to publish the census results both in the printed hard copies as well as in electronic format in diskettes and CD's. Special considerations will be taken to produce the data output tables useful for studying gender problems and age-sex dis-aggregated data will be generated where ever possible. Sample data will be kept in the public domain to facilitate the analyses according to user's needs.

Provisional results of the 2011 census will be released as soon as possible and preliminary analysis will also be prepared. The published preliminary figures of the census will be based on the quick count of information registered on the cover page of each book of census schedule.

11 Census Questionnaire

In the modern context there is increasing demand for more information and this is not an exception for the census as well. A census being a huge national undertaking incurring substantial amount of money, the resources are always constrained and limited. In order to cope with the increasing demand of the population data, it is most likely that the 2011 census also will introduce sampling scheme as was done in the previous census of 2001. One of the major objectives of the introduction of sampling in the census is to save cost as well as time. This leads to the design of two different types of questionnaires, the short form and the long form. The short form represents the complete count of the basic information on households and individuals. While, the long form represents the sample enumeration of other detailed demographic, social and economic variables at the individual as well as at the household level. For reference, a list of the items included in the short and long forms of the 2001 census is presented in Annex. The 2011 census questionnaire will be designed based on the 2001 questionnaire as well as feed backs received for the major stake holders.

12 Sampling Scheme

A suitable sampling scheme will be developed for the census. Sample selection will be carried out in each census EA. The sampling frame for each EA will be created during the initial listing operation. The listing form, among other items, will contain serial number of the housing units and the serial number of households found within the housing units. This listing form of housing units will be the basis of the sampling frame for selecting the housing units, for example. Then all households and persons found in the selected housing units can be enumerated using both the short and long questionnaires. The sample of households and persons in

each enumeration area will most likely a one-stage cluster sample, the cluster being the housing unit as pointed out.

13 Concepts and Definitions

For the first time, new concepts were introduced in the 2001 Census. In this context, there have been some modifications in the concept of household work and extended economic activity. Previously such activities were not conceptualized and had been included and confined within the domestic activities. The extended economic activity concept included the activities of fuel wood collection, fetching of water and production of goods for household consumption as economic activities. It is very important to note that it is for the first time that such concepts were developed and the activities were counted as economic activities.

Various terms and definitions used in the population census will be improved upon and standardized. One of such aspect is the use of standard classification of occupation and industry. In this context, the Nepal Standard Classification of Occupation and Industry 2000 were prepared and used in the data processing and tabulation. While preparing these classifications, attempts were made to include enough categories of work to suit the types of work in Nepalese context and adequate examples with due consideration on women's work were provided. This helped in the study of prevailing gender disparity in the field of economic activity of the population, especially women's participation in economic work. Another standard classification used and adopted was in the caste/ethnicity, mother tongue and religion groupings. These definitions and concepts will be further improved and used the upcoming census.

14 Post Enumeration Survey

Post enumeration surveys (PES) are generally conducted for the evaluation of the census coverage error. In Nepal, PES has been conducted since the 1981 Population Census. Post Enumeration Survey of the 2001 Population Census (PES 2001) was the third in this series to assess the quality of population census data. To assess the quality of the 2011 census PES will be carried out immediately after the census field work is finished. The PES will be made independent of the census enumeration. The staff of the Bureau will be especially trained for the purpose of the survey. The PES data analysis will reveal the coverage error of the census.

15 Conclusion

A population census is a complex operation consisting of “a series of closely related” steps. There are chances of error in every step of its operation and the errors are not tolerated. Quality data collection (with the minimum possible error) is not possible without the cooperation of the general public and the respondents in particular. Fortunately, the population censuses of Nepal are becoming more popular as compared to the previous ones. The public support for the census has been increasing. The data users are showing increasing interests to take part in the census operation. In the 2001 census, for example, the NGO's, the INGO's, different caste and ethnic groups, religious groups and other interest groups came up to help the census publicity. They wanted to be a part in the census taking itself. There was lots of concern on the census from all sections of the society and this helped the operation at all stages of the census. The upcoming census of 2011 is hoped to a successful endeavor with the similar interests shown by the general public.

Annex

Table A1: Items Covered in the Schedule 1 of the 2001 Population Census Questionnaire

Schedule 1	
Household Information	Individual Information
1. Type of housing unit occupied by the household	1. Serial number of household member
2. Tenure of housing unit	2. Full name of the household member
3. Whether any land operated for agriculture	3. Male/Female
4. Area of agricultural land operated	4. Age
5. Whether any livestock/ poultry raised	5. Caste/Ethnicity
6. Number of livestock/ poultry on the holding	6. Relationship to the household head
7. Whether any female member owned any house/land	7. Religion
- Area of land owned	8. Language spoken
8. Whether any female member owned any livestock	- Mother tongue
- Number of livestock (big and small head)	- Second language
9. Whether household was engaged in small scale non-agricultural activities	9. Citizenship
10. Main type of small scale activity (other than agriculture)	10. Type of disability
11. Whether any person absent from household and living abroad	
12. Information on the absentee	
- Sex, age, duration, and reason	

Source: Central Bureau of Statistics, 2003. Population Monograph of Nepal, Volume I.

Table A2: Items Covered in the Schedule 2 of the 2001 Population Census Questionnaire

Schedule 2	
Household Information	Individual Information
<ol style="list-style-type: none"> 1. Main source of drinking water 2. Main fuel used for cooking 3. Main source of light 4. Toilet facility 5. Household conveniences 6. Whether any death in the household 7. Information on the deceased person(s) <ul style="list-style-type: none"> - Sex, age, date, and cause 	<ol style="list-style-type: none"> 1. Serial number of household member 2. Full name and sex of the household member 3. Age 4. Place of birth 5. Duration of stay at the present place 6. Reason for staying in this district 7. Residence five years ago 8. Whether able to read and write 9. Level of education 10. Whether currently attending any school 11. Marital status 12. Age at first marriage 13. No. of children ever born alive 14. Any live births during last 12 months 15. Work usually done during the last 12 months 16. No. of months worked during the last 12 months 17. Occupation (type of usual work) 18. Industry (place of usual work) 19. Employment Status 20. Reasons for usually not working 21. Living arrangements of children below 16 years

Source: Central Bureau of Statistics, 2003. Population Monograph of Nepal, Volume I.