

# Nepal - Living Standards Survey 2010-2011, Third Round

**Central Bureau of Statistics - National Planning Commission Secretariat,  
Government of Nepal**

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# Sampling

## Sampling Procedure

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As in the previous two rounds of the NLSS, the NLSS-III followed the Living Standards Measurement Survey (LSMS) methodology developed and promoted by the World Bank (WB). The main features of the methodology include:

- a relatively "smaller" sample size compared with the other in-depth household surveys,
- an "integrated" multi-topic household questionnaire for collecting a comprehensive data set on household welfare,
- an "innovative" data management technique including field based data entry and field verification system,
- a "panel" sample in addition to the nationally representative sample of households, and
- data collection over a period of 12 months divided into several phases to capture "seasonal variation".

### Sampling Frame

The initial frame for the NLSS-III survey was based on the frame prepared for the 2008 Nepal Labour Force Survey (NLFS-II). This was done "to take advantage of the cartographic segmentation and household listing operations" conducted by the CBS for the NLFS-II. Number of households at ward level was obtained from the 2001 Population Census. CBS has constructed a data set with basic information (number of households, total population, and male and female population) at the ward level. This data set was used to construct the frame for the selection of primary sampling units (PSUs).

The PSU for the NLFS-II were either individual wards or sub-wards or groups of contiguous wards in the same VDC. A group of wards was considered as single PSU, to ensure that each unit contained at least 30 households.

For the ultimate sample selection of households in the NLFS-II, a frame was prepared in each ward selected at the earlier stage of sampling. A list of all households was prepared in all the wards selected for the survey. Selection of households was carried out from these listings using systematic sampling with a random start. Before the listing, an intensive cartographic work was undertaken (in the urban areas and some of the rural areas) to form appropriate enumeration block having around 200 households.

### Stratification

For the NLFS-II sample selection, 75 districts along with the urban and rural areas were grouped into six strata - mountains, urban areas of the Kathmandu valley, other urban areas in the hills, rural hills, urban Tarai and rural Tarai. These six strata of the NLFS-II were further regrouped into 14 strata for the NLSS-III purposes. The "explicit" strata formed for the NLSS-III were as follows: mountains, urban areas of the Kathmandu valley, other urban areas in the hills, rural eastern hills, rural central hills, rural western hills, rural mid-western hills, rural far-western hills, urban Tarai, rural eastern Tarai, rural central Tarai, rural western Tarai, rural mid-western Tarai, and rural far-western Tarai.

### Sample Design

The sample design adopted in NLSS-III was modified sub-sample of the sample adopted in NLFS-II. For the NLFS-II, 800 PSUs were selected - 400 PSUs each from urban and rural areas. As mentioned earlier, the PSU for the NLFS-II was a ward or a sub-ward or a combination of wards. The PSUs were selected with probability proportional to size, the measure of size being the number of households.

For the NLSS-III, two independent samples were selected: the first was a cross sectional sample and the second was a panel. The panel sample consisted of PSUs and households previously enumerated in one or both of the past two rounds of the survey.

### Cross-section Sample

The cross-section sample was selected in three stages:

- In the first stage, the enumeration area units (primary sampling units, PSUs) are identical to that of NLFS-II. NLFS selected a sample of 800 PSUs allocated into six explicit strata. Within each stratum, the PSUs were selected with probability proportional to size (pps), the number of households being the measure of size (mos).
- In the second stage, 500 of the 800 NLFS PSUs were selected to form the NLSS-III PSUs. As mentioned earlier, for this selection purpose the six strata of NLFS-II were further divided into 14 sub-strata (Box 1.2). Within each sub-stratum, the sample was selected with equal probability.
- In the third stage, 12 households were selected with equal probability in each PSU (using the computerized household listings generated by the NLFS-II as a sample frame). An additional 6 households were selected in each PSU, to be used as replacement household for non-response among the 12 originally selected households.

### Panel Sample

The panel sample of the NLSS-III is composed of all households visited by the NLSS-II in 100 of its primary sampling units (PSU). Fifty of them were taken from the cross-sectional component of the NLSS-II, and the remaining fifty from its panel

component. In other words, one half of the NLSS-III panel households were households visited for the first time during the NLSS-II, whereas the other half were the households visited during both the NLSS-I and the NLSS-II.

#### Sample Size

The sample size for the survey was estimated at 7200 households in 600 PSUs. Among them, 100 PSUs with 1200 households interviewed in the NLSS-I or NLSS-II were selected for reinterviewing in the NLSS-III. And, 500 PSUs with 6000 households were selected as the crosssection sample. The PSUs were selected with probability proportional to size, the measure of size being the number of households in each ward. As mentioned earlier, twelve households were selected for the enumeration from each of the selected PSU.

# Questionnaires

## Overview

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As in the previous two surveys, NLSS-III used two types of questionnaires: household questionnaire and community questionnaire. There are two separate community questionnaires one each for rural and urban communities.

As many of the NLSS-II questions as possible were retained in the NLSS-III. However, some important additions and modifications were made in these questionnaires to address the contemporary issues.

A new section with questions on anthropometry and breastfeeding was added in the NLSS-III household questionnaire. Other two new sections added were on "jobs and time use" and "employment and unemployment". Additional questions on food consumption during the past 7 days were introduced in "food expenses and home production" section. For some other questions of the NLSS-II, answer categories were modified, expanded or elaborated.

First, draft questionnaires were developed based on the questionnaires used in the NLSS-II. The questionnaires were pre-tested several times to assess their use under actual field conditions. Pretests were conducted in each of the Kanchanpur, Doti, Banke, Rupendehi, Kaski, Kathmandu, Lalitpur, Nuwakot, Dolakha, Dhanusha, Dhankuta, Jhapa and Panchthar districts. Following the experience of the pre-tests and the feedback obtained from potential data users, the questionnaires to be used for the actual survey were finalized.

In line with the project's objective of improving linkages between data users and the data collecting agency, the data needs and priorities identified by the project's Steering and Technical Committees were given special consideration while finalizing the questionnaires.

An 80-paged household questionnaire with 21 sections and 9 appendices was administered in the NLSS-III. The content of this household questionnaire is presented in Box 1.5. The contents of the rural and urban community questionnaires are presented in Box 1.6. An English version of the NLSS-III Household Questionnaire is presented in "Statistical Report Volume 2 Annex 2".

Contents of household questionnaire:

Cover page - Household ID, name and address of the household head, GPS coordinates of the location, and certification of enumerator and supervisor.

Section 0 Survey information - Enumeration details (date of interview and replacement details and certification of supervisor); household information; data entry details (date of data entry and certification by supervisor).

Section 1 Household roster - Demographic characteristics (including name, sex, age, relationship to the household head, birth place, marital status for persons aged 10 years or over, and caste/ethnicity), and identification of household members, and parents of household members (whether living in the same household and educational status).

Section 2 Housing - Type of dwelling occupied by the household, housing expenses, utilities and amenities and use of iodized salt in the household.

Section 3 Access to facilities - Distance to the various (24) public facilities and services, mode of transport and travel time required to reach the facility.

Section 4 Migration (for all household members aged 5 years and over) - First time in migration to the place of enumeration, out migration over the past five years.

Section 5 Food expenses and home production (during past 12 months and past 7 days) - Consumption of foods (over a typical month)- home production, food purchased and food received in kind, and consumption of foods (during past 7 days from the day of enumeration)- home production, food purchased and food received in kind.

Section 6 Non food expenditures and inventory of durable goods (over a period of 12 months) - Expenditure of frequent non food items and infrequent non food items, inventory of durable goods, and own account production of goods).

Section 7 Education (for all members aged 3 years and over) - Literacy status, level of education, past enrollment and current enrollment.

Section 8 Health - Disability and chronic illness (for all members), illness and injuries during past 30 days, not able to work due to illness (for members aged 5 years and over), knowledge of HIV/AIDS, immunization (for children below 5 years of age).

Section 9 Marriage and maternity history - Maternity history (for all ever married women aged 15-49 years who have given live birth), pre and post natal care (for all women with a child aged 3 years or less), family planning (for all currently married women aged 15-49 years), and household decision (for spouse of the male household head or female household head).

Section 10 Jobs and time use - Time use (for all household members aged 5 years or over) - total number of hours spent during the past seven days in economic activities, extended economic (home based) activities and non-work activities (household chores); and jobs during the past 12 months, the past 7 days and sector of employment (for all household members aged 5 years and older).

Section 11 Unemployment and under employment - Unemployment i.e., not working; underemployment i.e., working less than 40 hours per week (for all household members aged 5 years or over).

Section 12 Wage jobs - Wage employment in agriculture and outside agriculture wage paid daily, long term or contract basis (for all household members aged 5 years or over).

Section 13 Farming and livestock - Land holding and farming activities (land owned, land sharecropped/rented/mortgaged-in, increase/decrease in holding area), production and use of crops, expenditure on agricultural input (including seeds/seedlings, fertilizers, pesticides, and hired labour), earnings/expenditure of farming, inventory of livestock on holding, earnings/expenditure of livestock, ownership of farming assets and access to extension services.

Section 14 Non-agricultural enterprises/activities - Self employed in non-agricultural enterprise and activities by type and operation of enterprises, and income and expenditure of the enterprises.

Section 15 Credit and savings - Borrowing and outstanding loans (borrower, source, amount, period and collateral); lending and outstanding loans (borrower, source, amount, period and collateral); other assets (land, property and other fixed assets); and household decisions (for male household head or spouse of the male household head).

Section 16 Absentees information - Demographic characteristics of the absentee, main reason of leaving home; employment and remittances received from absentees (sector of absentee's employment, medium of remittances, total amount and use of remittances received).

Section 17 Other remittances - Remittances and transfer-income sent (demographic characteristics of the recipient, work activity of the recipient, total amount sent and medium of transfer); remittances and transfer income received (demographic characteristics of the donor, work activity of the donor, total amount received, main use of remittances received and medium of transfer).

Section 18 Transfers, social assistance and other income - Amount received under different social assistance programmes (amount expected and amount actually received under the programmes), benefits in-kind, benefits from public work activities, and income from all other sources not covered elsewhere in the questionnaire.

Section 19 Adequacy of consumption and government facilities - Household's perception on their standards of living and the standards of government facilities/services that the household is using; Household food security and steps taken to alleviate food shortage.

Section 20 Anthropometrics and breastfeeding practices - Exact age of the child, measurement of height and weight of children of age 59 months or less, exclusive breast feeding (for child of age less than 6 months), and duration of breastfeeding.

Section 21 Panel sample household tracking - Household composition in 1995/96 or 2003/04, present household composition, reason of changes in the household composition, current status (not the household member).

## Contents of rural and urban community questionnaires

### Rural community questionnaire:

Cover page - Ward ID and certification of enumerator and supervisor.

Section 1 Population characteristics and infrastructure - Characteristics of the community, status of electricity supply, water supply and sewerage system in the ward.

Section 2 Access to facilities - Services and amenities, and health facilities existing and education status of the residents in the village development committee of the enumeration area.

Section 3 Agriculture and forestry - Land use, irrigation systems, and crop cycles; rate of wages paid to hired labour; rental rates for cattle and machinery; use of forestry.

Section 4 Migration - In and out migration of people in the community.

Section 5 Development programmes, user groups, and quality of life - Development programmes, existing user groups and quality of life in the community.

Section 6 Rural primary school - Education enrollment in the primary school, infrastructure of the school and supplies in the community.

Section 7 Rural health facilities - Health facilities, equipment and services available and health personnel in the community.

Section 8 Market and prices - Local shops, haat bazaar, availability and prices of different goods in local shops/haat bazaar, agricultural inputs and conversion of local units into standard units.

### Urban community questionnaire:

Cover page - Ward ID and certification of enumerator and supervisor.

Section 1 Population characteristics and infrastructure - Characteristics of the community, status of electricity supply, water supply and sewerage system in the ward.

Section 2 Access to facilities - Distance from the community to various places and public facilities and services.

Section 3 Market and prices - Availability and prices of different food and non food commodities in the local shops/markets.

Section 4 Quality of life - Quality of welfare items compared with their status 5 years ago.

# Data Collection

## Data Collection Dates

Start	End	Cycle
2010-02-21	2010-03-22	First Phase
2010-04-03	2010-06-26	Second Phase
2010-07-01	2010-10-24	Third Phase
2010-10-29	2011-02-07	Fourth Phase

## Data Collection Mode

Face-to-face [f2f]

### DATA COLLECTION NOTES

Survey time reference is a period encompassing the various time reference dates or periods of data collection for individual data item. Generally, the time reference for the survey is either the day of enumeration or a particular day (for inventory items) and a longer period (for continuous activities). As required by the nature of the survey, NLSS-III adopted an elaborate time reference scheme. The time references adopted in the NLSS-III are as follows:

- The day of enumeration or a particular day
- Past 7 days
- Past 30 days
- Past 12 months
- Past agricultural year

The survey enumerated 5988 sample households from 499 primary sampling units (PSUs) from the cross section sample. As regards to panel sample, from 100 PSUs 1032 households were tracked and enumerated (out of which 513 households were the households enumerated in the NLSS-II and the rest were the households enumerated in both of NLSS-I & II). Thus, in total 7020 households were enumerated in the survey.

In the NLSS-III, data were collected by 20 field teams. Each team was responsible for a particular area of the country. Teams were formed to balance the workload and travel time among the teams. The teams were based in the appropriate Branch Statistics Office (BSO) of the CBS, and each team covered on average 30 PSUs during a period of 12 months.

Each team consisted of one supervisor, three interviewers (including at least two female interviewers) and one specially trained data entry operator. Each team was equipped with a laptop computer, solar panel power box, GPS device, kits for testing iodine in salt, instruments for measuring height and weight of children and other logistics required in the field.

The primary job of the interviewer was to complete the household questionnaire after interviewing the household head or other relevant member(s) of the household. Female interviewers were assigned the additional task of interviewing the female members of household (especially sensitive questions related to women). They were also assigned to measure the height and weight of children in the interviewed household. Further, one of the enumerators was assigned the task of computer data entry in the field.

All together 100 field workers were assigned in the main enumeration of the survey. Majority of the field workers were mobilized from the regular staffs of the CBS and the Branch Statistics Offices (BSOs). In addition to the regular staff, 40 female interviewers were newly recruited for the purposes mentioned earlier - to conduct interviews related to women and to work as an anthropo-metrician.

Female interviewers were recruited on a year contract. To encourage the local participation, these female interviewers were recruited from three centres of the country: Biratnagar, Kathmandu, and Nepalgunj. The required number of female interviewers was recruited on the basis of a job interview of each candidate.

The training of the field workers (supervisors, interviewers, and data entry operators) was the main training for the survey. The training commenced on January 17, 2010 and concluded on February 14, 2010 covering 25 working days in total.

The training was organized in the two adjacent training centres at Jawalakhel, Lalitpur in the Kathmandu valley. There were 120 participants in the training programme at the beginning. The participants were divided into four groups and four concurrent group sessions were held. Out of 120 participants, 117 completed the training successfully.

Different methods of training were adopted. The methods used included study of the questionnaire and the reference

manual, classroom sessions, class exercise sessions, mock interviews and field practices and discussions.

A separate training one each for supervisors (on community questionnaires) and data entry operators (on data entry and verification procedures) was also organized. Besides, female interviewers were trained in anthropometrics. Interviewers were also trained on how to measure the iodine contain in salt.

The core team members of the project conducted the training. The UNICEF, Nepal assisted the trainers in conducting the anthropometric sessions. National and international consultants also were involved in the management and supervision of the training.

Data collection was carried out over a period of 12 months to cover a complete cycle in agricultural activities and to capture seasonal variations in other variables. Fieldwork took place in four subsequent phases.

The first phase started on February 21, 2010 and 69 PSUs (including 7 panel PSUs) were covered during a period of 29 days. After the completion of the first phase, a 5-day review meeting of the field workers commenced on March 29, 2010. This review meeting was used for discussions about difficulties in the field and preparations for the second phase. During the review meeting, instructions were issued to rectify the errors and inconsistencies found in the field work (especially in the computer data entry programmes).

The second phase of data collection work started from April 3, 2010 and continued till the June 26, 2010. During this phase, work on 131 PSUs was completed. The third phase of the field work continued from July 1, 2010 through October 24, 2010 and 200 PSUs were completed in this period. The fourth phase began on October 29, 2010 and was completed by the first week of February, 2011. Field review meetings were held in the break periods between these phases and they were basically used for discussions of field difficulties and for rectifying the errors.

## Data Collectors

Name	Abbreviation	Affiliation
Central Bureau of Statistics	CBS	National Planning Commission Secretariat, Government of Nepal

### SUPERVISION

The supervision of the NLSS was a three-tier. The field team supervisor supervised the data collection activities and

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Among the team members, supervisor was responsible for coordinating, supervising, and monitoring the field work. Besides, supervisor was responsible to complete the community questionnaires. Other responsibilities included checking the filled-in questionnaires and doing real time corrections, and supervising data entry activities.

The team supervisor was charged with day to day field supervision. Besides, there was a provision for the supervision from the CBS (central level) as well as from the BSOs. Central level supervisory visits began immediately after the start of the field work which was carried out by the core team members of Household Survey Section.

During the survey period, the field work was constantly supervised and monitored by the core team members. Besides the core team members, at times central supervisions were carried out by the Director General and Deputy Director General of the Bureau. The core team members prepared a list of instructions based on the observations of the central supervision. A supervision form was developed for the purpose of field supervision.



# Data Processing

## Data Editing

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Each of 20 field teams consisted of 5 members in which one person was specially trained for data entry and consistency checking. The supervisor of the team was responsible for final editing and consistency checks at the field level. Each field team was provided with a laptop computer for data entry and they were required to complete the data entry and editing at the respective locality of data collection (PSU). CSPro version 3.3 was used for designing data entry codes. The data management package was embedded with specially designed consistency check codes for possible errors. The data collectors were required to revisit the households to verify for any missing or inconsistent values that were detected while running consistency checks.

As in the previous two rounds of the survey, a distinctive feature of the NLSS-III was the use of personal computer in the field. A data entry programme developed specifically for the survey was installed on each computer provided to the field teams.

The data entry programme enabled the data entry operator as well as the team supervisor to find out mistakes and missing data (if any) and to perform inconsistency checks. When problems or errors were found, the interviewers returned to the households to correct the errors. The field supervision from the CBS included the real time check and verification of data entry work in the field.

This process of real time entering, checking and correcting data in the field helped to enhance the quality of data collected. It also reduced the time lag between data collection and data processing. This also helped to make data available for processing shortly after the completion of the collection phase.

## Other Processing

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After the completion of the field work (including data entry), the data diskettes were sent back to the CBS from the field. Data processing and analysis was done in the CBS using STATA statistical software package.

# Data Appraisal

No content available



## Related Materials

### Questionnaires

#### Living Standards Survey Household Questionnaire 2010-2011

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Title Living Standards Survey Household Questionnaire 2010-2011  
 Author(s) Central Bureau of Statistics (CBS)  
 Country Nepal  
 Language English  
 Filename NLSS\_III\_HH\_V05\_Eng.pdf

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#### Living Standards Survey Household Rural Community Questionnaire 2010-2011

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Title Living Standards Survey Household Rural Community Questionnaire 2010-2011  
 Author(s) Central Bureau of Statistics (CBS)  
 Country Nepal  
 Language English  
 Filename NLSS\_III\_CR\_V00G\_Eng.pdf

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### Reports

#### Nepal Living Standards Survey Household 2010-2011, Statistical Report, Volume One

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Title Nepal Living Standards Survey Household 2010-2011, Statistical Report, Volume One  
 Author(s) Central Bureau of Statistics (CBS)  
 Date 2011-11-01  
 Country Nepal  
 Language English  
 Filename Statistical\_Report\_Vol1.pdf

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#### Nepal Living Standards Survey Household 2010-2011, Statistical Report, Volume Two

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Title Nepal Living Standards Survey Household 2010-2011, Statistical Report, Volume Two  
 Author(s) Central Bureau of Statistics (CBS)  
 Date 2011-11-01  
 Country Nepal  
 Language English  
 Filename Statistical\_Report\_Vol2.pdf

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### Technical documents

#### Nepal Living Standards Survey III 2010, Sampling Design and Implementation

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Title Nepal Living Standards Survey III 2010, Sampling Design and Implementation  
Author(s) Central Bureau of Statistics (CBS)  
Country Nepal  
Language English  
Filename NLSS-III\_Pweights-1105.pdf

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