

# **NEPAL LIVING STANDARDS SURVEY II (2003/04)**

## **SURVEY DESIGN AND IMPLEMENTATION**

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This document is prepared by Mikhail Bontch-Osmolovski with contributions from Elena Glinskaya (SASPR) as a contribution to the expanded program of documentation and further development of the Living Standards Measurement Study (LSMS). The first section of the document heavily draws from the statistical report “NEPAL LIVING STANDARDS SURVEY 2003/04”, prepared by the Nepal Central Bureau of Statistics which is available from [www.cbs.gov.np](http://www.cbs.gov.np) or by writing to the [hhss@cbs.gov.np](mailto:hhss@cbs.gov.np)

The Central Bureau of Statistics makes the NLSS II data sets available to all users at a charge. Users are requested to acknowledge that they received the data from CBS, provide the CBS with a copy of any publication in which the data are used, and refrain from passing on copies of the data set without the written permission of the CBS. The rates vary according to the user.

The data are also available through the LSMS Office at the World Bank; see <http://www.worldbank.org/lsmshome.html>. Permission from the Government of Nepal is required prior to the World Bank being allowed to distribute the data from the 2003/04 Nepal Living Standards Survey.

## **1. NLSS-II Survey**

Nepal Living Standards Survey 2003/04 (NLSS II) is the second multi-topic national household survey conducted by the Central Bureau of Statistics (CBS) from April 2003 to April 2004. As a follow up to the first NLSS of 1995/96 (NLSS I), the main objective of the NLSS II was to track changes in living standards and social indicators of Nepalese population between 1995/96 and 2003/04. The survey provides information on the different aspects of households' welfare (consumption, income, housing, labor markets, education, health etc.). NLSS II data are largely comparable to the NLSS I data and follows the methodology of the Living Standards Measurement Survey (LSMS) developed by the World Bank.

### ***Survey Methodology***

As in NLSS I, NLSS II followed the Living Standards Measurement Survey (LSMS) methodology, a household survey approach developed by the World Bank and applied in more than 50 developing countries. The key features of the NLSS II approach are as follows:

- i. a relatively smaller sample size than special purpose survey;
- ii. an integrated household questionnaire covering consumption, incomes, assets, housing, education, health, fertility, migration, employment, child labour, supported by a community questionnaire aimed to collect information on facilities, service delivery mechanism, prices and the environment facing the households;
- iii. innovative data management techniques, including pre-coded questionnaires, field based data entry system, field verification, and extensive training and supervision of field workers.
- iv. inclusion of panel households concurrently with nationally representative sample households and collecting of information over a complete cycle of 12 months partitioned into three pre-scheduled phases.

### ***Sample design***

The sampling design of the NLSS II included two components. The first one was nationally representative random cross-section sample of 4,008 households from six explicit strata of the country. The second one was panel sample of 1,232 households drawn from those households interviewed in NLSS I.

### ***Sample frame***

The 2001 Population Census of Nepal provided a basis for this survey's sample frame. The size of each ward (as measured by number of households) was taken as a unit of sample frame. Some larger wards were divided into smaller units (sub-wards) of clearly defined territorial areas supported by reliable cartography while some of the smaller wards with fewer than 20 households were appended to neighbouring wards in the same VDC. The resulting sampling frame consisted of 36,067 enumeration areas (wards or sub-wards) spread over 3 ecological zones<sup>1</sup>, 5 development regions, 75 districts, 58 Municipalities and 3,914 Village Development Committees (VDCs) of the country. The sample frame was sorted by district, VDC, ward and sub-ward and districts were numbered from geographical East to West.

### ***Stratification***

The design of the cross-section part of NLSS II was similar to that of the NLSS I. The total sample size (4,008 households) was selected in two stages: 12 households in each of 334 Primary Sampling Units. The sample of 334 PSUs was selected from six strata using Probability Proportional to Size (PPS) sampling with the number of households as a measure of size. The numbers are all multiples of 12 with the intention of implementing a two-stage selection strategy with that many households per PSU in the second stage. Within each PSU, 12 households were selected by systematic sampling from the total number of households listed.

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<sup>1</sup>Three ecological zones are Mountains in the north (altitude 4877 to 8848 meters), Hills in the middle (altitude 610 to 4876 meters) and Tarai in the south. Mountains make up 35 percent of total land area of the country, while Hills and Tarai 42 percent and 23 percent respectively.

The NLSS II cross-section sample was allocated into six explicit strata as follows: Mountains (408 households in 34 PSUs), Kathmandu valley urban area (408 households in 34 PSUs), Other Urban areas in the Hills (336 households in 28 PSUs), Rural Hills (1,224 households in 102 PSUs), Urban Tarai (408 households in 34 PSUs) and Rural Tarai (1,224 households in 102 PSUs). The NLSS II panel sample is composed of 100 of the 275 PSUs visited by the NLSS I in 1995/96. The panel PSUs were selected with equal probability within each of the four strata defined by NLSS I, as follows: 12 (out of 33) in the Mountains, 18 (out of 50) in the Urban Hills, 33 (out of 92) in the Rural Hills and 37 (out of 100) in the Tarai.

In NLSS I, the strata were composed of Mountains (424 households), Urban Hills (604 households), Rural Hills (1,136 households) and Tarai (1,224 households). The sampling frame was taken from the Population Census 1991.

Tables 1 and 2 present the geographic distribution of the cross-section, panel and combined samples. Table 3 shows the geographic distribution of cross-section sample with respect to urban rural composition. Table 4 presents the enumeration status of PSUs and households.

**Table 1: Primary sampling units of the NLSS II by region and zone**

Ecological Zone	Development Region					Total
	East	Central	West	Mid West	Far West	
<b>Cross-section</b>	<b>75</b>	<b>126</b>	<b>65</b>	<b>39</b>	<b>29</b>	<b>334</b>
Mountains	9	11	1	6	7	34
Hills	22	68	45	18	11	164
Tarai	44	47	19	15	11	136
<b>Panel</b>	<b>23</b>	<b>39</b>	<b>19</b>	<b>11</b>	<b>8</b>	<b>100</b>
Mountains	3	4	0	2	3	12
Hills	7	23	12	6	3	51
Tarai	13	12	7	3	2	37
<b>Combined</b>	<b>98</b>	<b>165</b>	<b>84</b>	<b>50</b>	<b>37</b>	<b>434</b>
Mountains	12	15	1	8	10	46
Hills	29	91	57	24	14	215
Tarai	57	59	26	18	13	173

Note: See table 4 for the enumeration status of sampling PSUs in NLSS-II

**Table 2: Number of sample households of the NLSS II by region and zone**

Ecological Zone	Development Region					Total
	East	Central	West	Mid West	Far West	
<b>Cross-section</b>	<b>900</b>	<b>1512</b>	<b>780</b>	<b>468</b>	<b>348</b>	<b>4008</b>
Mountains	108	132	12	72	84	408
Hills	264	816	540	216	132	1968
Tarai	528	564	228	180	132	1632
<b>Panel</b>	<b>276</b>	<b>468</b>	<b>228</b>	<b>132</b>	<b>128</b>	<b>1232</b>
Mountains	36	48	0	24	48	156
Hills	84	276	144	72	48	624
Tarai	156	144	84	36	32	452
<b>Combined</b>	<b>1176</b>	<b>1980</b>	<b>1008</b>	<b>600</b>	<b>476</b>	<b>5240</b>
Mountains	144	180	12	96	132	564
Hills	348	1092	684	288	180	2592
Tarai	684	708	312	216	164	2084

Note: See table 4 for the enumeration status of sample households in NLSS-II

**Table 3: Distribution of sample households of the NLSS II by region, zone and urban/rural residence**

Ecological Zone	Development Region					Total
	East	Central	West	Mid West	Far West	
<b>Mountains</b>	108	132	12	72	84	408
Urban	12	--	--	--	--	12
Rural	96	132	12	72	84	396
<b>Hills</b>	264	816	540	216	132	1,968
Urban	48	480	168	24	24	744
Rural	216	336	372	192	108	1,224
<b>Tarai</b>	528	564	228	180	132	1,632
Urban	156	120	48	48	36	408
Rural	372	444	180	132	96	1,224
<b>Total</b>	900	1,512	780	468	348	4,008
Urban	216	600	216	72	60	1,164
Rural	684	912	564	396	288	2844

**Table 4: Enumeration status of PSUs and households in the NLSS II (figures represent the number of households; figures in parentheses represent the number of PSUs)**

Sample	Sampled	Enumerated			Not Enumerated	
		Originally	Replaced	Total		
Cross-section	4008 (334)	3493	419	3912 (326)	96	(8)
Panel	1232 (100)	962	198	1160 (95)	72	(5)
<b>Combined</b>	<b>5240</b> <b>(434)</b>	<b>4455</b>	<b>617</b>	<b>5072</b> <b>(421)</b>	<b>168</b>	<b>(13)</b>

***Cartographic updating and household listing***

The NLSS II cartographic updating was conducted between December 2001 and May 2002. There were 334 PSUs from the cross-sectional sample where listing operation provided a precise and up to date measure of households in each PSU. The 235 PSUs contained 400 or fewer households while 99 PSUs had larger than 400 households according to the 2001 Population Census. Those PSUs with more than 400 households were segmented into smaller units containing 150-200 households by means of a cartographic updating operation. The operation defined territorial boundaries for the segments within the PSUs and established a rough measure of the size of each segment based on a quick count of dwellings. One of the segments was then selected randomly with PPS in each PSU, and a complete household listing was conducted in that segment. A new cartographic updating was needed for 59 of the large PSUs since some of the large PSUs corresponded to wards that had already been segmented in 1995 as a part of the NLSS I operations. This updating included verification of the boundaries and quick count of dwellings.

A complete household listing operation was undertaken in all cross-section PSUs during March-May of 2002, about a year prior to the survey. The information collected in the listing included dwelling/household serial number, name of the village/settlement, block number, name and nickname (if any) of the household head, household size and name of the landlord when the housing unit was rented. The cover page for listing was designed to furnish information on the language spoken, the mode of transport and the traveling time to reach the selected ward/sub-

ward/segment. This was utilized while preparing schedules of fieldwork. There were 25 teams for listing operation and each team consisted of two enumerators. Field-based 32 enumerators were selected from CBS and Branch Statistical Offices (BSOs) while the rest 18 were hired on contract from outside Kathmandu for listing operation in the selected PSUs under the separate component of the project named "Listing and Cartography Work for NLSS II". Two day training was conducted on listing procedure for the enumerators outside of Kathmandu at Biratnagar (East), Hetaunda (Central) and Nepalgunj (West). Because of insurgency in different parts of the country, listing operation in 10 PSUs could not be completed during the specified period but was completed later.

### ***Survey questionnaire***

Two types of questionnaires were administered in NLSS II: household questionnaire and community questionnaires (urban and rural). In order to generate comparable data with NLSS I, as many of the NLSS I questions as possible were retained in NLSS II. However, some important additions were made on the household questionnaire to address some contemporary issues such as population migration and child labor. Some questions were omitted based on whether such questions were poorly answered or collected in NLSS I. Detailed discussions were made on the household questionnaire with members of NLSS II Technical Committee, representatives from different donor agencies and other stakeholders.

For instance, the anthropometrics module was dropped entirely. Questions on new areas of concern and economic activities were added (child labor – merged from a planned ILO "Nepal Child Labor Survey" for members 5 years of age and over). Sections on changes in household composition for the panel component of the survey and children (under 15 years of age) away from home were added. Questions on migration were asked of all members of the household 5 years and older in this survey instead of just the household head in previous survey. Other additions and modifications included own account production of goods, extended economic activities, underemployment status, health information including HIV/AIDS and household facilities. Some gender specific questions were added in agricultural wages whereas a few questions were dropped from the agriculture section.

There were separate sets of questionnaires for urban and rural communities, as in NLSS I. Community questionnaires were designed to measure community characteristics and market prices to supplement the information collected through household questionnaire.

The questionnaires were revised intensively with the feedback from pre-test in the field. The pre-test was done in different ecological zones, development regions and urban/rural areas during July-August 2002. The pre-test was also designed to track panel households and the tracking was found to be 80 percent.

### ***Survey Difficulties***

Some conflict-affected areas especially in the rural areas posed a great challenge for the CBS to conduct such an integrated household survey. The interviewers were on high alert in these areas, kept themselves in a very low profile, and in many instances were assisted by the local people. Overall 12 PSUs (8 in the cross-section and 4 in the panel sample) could not be enumerated even after repeated attempts. Altogether 13 rural enumeration areas (PSUs) could not be interviewed constituting 8 from the cross-section and 5 from the panel sample. (One of the panel PSUs from the Far Western Terai vanished completely due to the merging of enumeration area to the Royal Shukla Phanta Wildlife Reserve by the government.) The missing PSUs include 2 from Central Hills, 2 from Mid Western Mountains, 2 from Far Western Mountains, 6 from Far Western Hills and 1 from Far Western Terai.

**Table 5: Affected enumeration areas (PSUs) by sample, urban/rural, zone and region**

District	Enumeration area	Sample	Urban/rural	Zone	Region
Kavre	Gokule-6	Cross-section	Rural	Hills	Central
Kalikot	Nanikot-7	Cross-section	Rural	Mountains	Mid-western
Bajhang	Khiratadi-5	Cross-section	Rural	Mountains	Far-western
Achham	Raniban-9	Cross-section	Rural	Hills	Far-western
Achham	Batulasen-3	Cross-section	Rural	Hills	Far-western
Achham	Kalagaun-1	Cross-section	Rural	Hills	Far-western
Baitadi	Kuwakot-8	Cross-section	Rural	Hills	Far-western
Baitadi	Bhatana-7	Cross-section	Rural	Hills	Far-western
Makwanpur	Shreepur Chhatiwan-8	Panel	Rural	Hills	Central
Kalikot	Dhoulagohe-7	Panel	Rural	Mountains	Mid-western
Bajhang	Sainpasela-2	Panel	Rural	Mountains	Far-western
Achham	Bhatakatiya-1	Panel	Rural	Hills	Far-western
Kanchanpur	Pipaladi-2	Panel	Rural	Tarai	Far-western

Information on the organization of the fieldwork, field teams, the structure of the interviews and supervision and data entry management is available from the CBS.

## 2. Summary of NLSS II Data Files

The actual sample size of the cross-section NLSS-II data set is 3,912 households, while the panel NLSS-II sample size is 962 households. The names of the data files correspond to the sections of the questionnaires (i.e., file named “Z01A” corresponds to section 1 part A of the household questionnaire; file named “Z01B” corresponds to section 1, part B, etc.).

### *Cross-sectional sample*

The collected household data were organized in a set of household and individual-level files, and community data were organized in community-level data set files. These files correspond to the various sections and sub-sections in the survey questionnaires. For the ease of the usage, the World Bank and Nepal Central Bureau of Statistics researchers created files identical to the original files except for the names of the files and the variables. In these new files, the mnemonic name was concatenated to the original names (i.e. file “Z00” became “R2\_Z00\_SurveyInfo”; file “Z01A” became “R2\_Z01A\_HHRoster”, etc.) and the variables were also given mnemonic or “intuitive” names. The original names of the variables in all files were kept as part of the labels (i.e., variable “V01A\_01” became “r2\_name” with the label “V01A\_01 Name”; variable “V01A\_01A” became “r2\_ethncity” with the label “V01A\_01A Ethnicity”; etc.). See Table 6 below for the list of all available data sets.

### *Panel sample*

Panel sample is organized into a separate set of files with the names identical to that of the cross-sectional part of the sample. There is a separate directory with the panel sample files called “Panel”. Two additional files - Z18A and Z18B - were created for the panel sample, corresponding to sections 18 of the questionnaire which was administered only to the households from the panel sample. These files contain information for tracking of panel households. The World Bank and Nepal CBS research teams did not attempt to combine cross-sectional and panel data into one dataset for the purposes of analysis.

Cross-sectional and panel community data files are organized in the same way as household and individual data files. In other words, the files and variable names are identical, but placed in separate sub-directories.

**Note: In the interests of comparability and to ease the analysis, the team re-named in a similar manner the original files and variable in the NLSS-I survey and placed them in a directory “NLSS1”. Because of the methodological changes in the calculation of the price indexes and poverty lines from the time when the NLSS-I survey was first released, we also created a file “c1\_nlss\_public.dta” which contains variables fully comparable with that in the NLSS-II (see more below). File “c1\_nlss\_public.dta” is available upon request from the Nepal CBS or from the World Bank.**

### *Weights*

For the cross-section sample, the household weights are provided in the sample04.dta file in the variable is called “**weight**”. Weights are PSU-specific (i.e. the value of the variable is constant for all households in a PSU). Household weights for all households add up to 4,466,897 which is the estimated number of households in Nepal in 2003/04. Individual weight variable “**c2\_indwght**” is provided in the file “c2\_nlss\_public.dta”, see below. Variable **c2\_indwght** is constructed by multiplying household’s weight by the household size.

For the panel NLSS-II sample, the weight variables have the same names as for the cross-section sample -- **weight** and **c2\_indwght** -- and should be used in the same manner. Applying weights to the panel sample gives statistics that are representative of Nepal 1995/96. Note, that household’s weight variable **weight** was initially constructed so that it would sum up to the target number of households in Nepal in 1995/96 which was estimated at 3,345,052. However, because 5 of the panel PSUs were not surveyed due to the conflict and because of the survey attrition, variable **weight** sums up to only 2,856,148. Panel weights were not changed in any way to tackle this issue, but it may be possible to do some rescaling adjustments to match the target population in 1995/96. This decision is left up to the researchers.

### *Merging datasets*

Household-level data files should be merged by household identification variable “WWWHH”. Individual-level data files should be merged by the household and individual identification variables: “WWWHH and R2\_IDC”.

Panel data from the NLSS-II sample could be merged with NLSS-I data. Household-level data files should be merged with the original NLSS-I data by household identification variable “WWWHH”. Individual level records from the panel data set should be merged with NLSS-I individual records by the household and individual identification variables “WWWHH and id r2p\_IDC1996”, which are in a data file “Z18B”. (Note that the individual identification variable in the NLSS-I data is named “r1\_IDC”, so one would need to rename one of both variables to be able to perform the merge operation.)

Community-level data set should be merged by the PSU identification variable “WWW”. Note that the PSU number allows to determine whether the household is from the cross-sectional or from the panel samples. In particular, the NLSS II cross-section data contains PSUs numbered from 501 to 834; NLSS-II panel data contains PSUs numbered from 3 to 269.

### *List of data files*

A list of data files for the household and community surveys are presented below. (As mentioned above, note that the file names for the cross-section and panel samples are identical, but placed in different sub-directories).

**Table 6: Household Survey**

Original filename	Mnemonic filename	Description	Unit of observation	Identifier
Z00.dta	R2_Z00_SurveyInfo.dta	Survey Information	household	WWWHH
Z01A.dta	R2_Z01A_HHRoster.dta	Household Information, Household Roster	individual	WWWHH r2_IDC
Z01B.dta	R2_Z01B_Parents.dta	Household Information, Information on Parents of Household Members	individual	WWWHH r2_IDC
Z01C.dta	R2_Z01C_Activities.dta	Household Information, Activities	activity	WWWHH r2_activcode
Z01D.dta	R2_Z01D_Unemployment.dta	Household Information, Unemployment	individual	WWWHH r2_IDC
Z02A.dta	R2_Z02A_DwellingType.dta	Housing, Type of Dwelling	household	WWWHH
Z02B.dta	R2_Z02B_HousingXpns.dta	Housing, Housing Expenses	household	WWWHH
Z02C1.dta	R2_Z02C1_UtillsAmenities1.dta	Housing, Utilities and Amenities	household	WWWHH
Z02C2.dta	R2_Z02C2_UtillsAmenities2.dta	Housing, Utilities and Amenities	household	WWWHH
Z02D.dta	R2_Z02D_WaterFirewood1.dta	Firewood	household	WWWHH
Z03.dta	R2_Z03_FacilitAxs.dta	Access to Facilities	facility	WWWHH r2_fac_CODE
Z04.dta	R2_Z04_Migration.dta	Migration	individual	WWWHH r2_IDC
Z05A.dta	R2_Z05A_FoodHProdXpns1.dta	Food Expenses and Home Production	food item	WWWHH r2_foodcode
Z05B.dta	R2_Z05B_FoodHProdXpns2.dta	Food Expenses and Home Production	household	WWWHH
Z06A.dta	R2_Z06A_FreqNFoodXpns.dta	Non-food Expenditures and Inventory of Durable Goods, Frequent Non-food Expenditures	non-food item	WWWHH r2_fnonfcode
Z06B.dta	R2_Z06B_InfreqNFoodXpns.dta	Non-food Expenditures and Inventory of Durable Goods, Infrequent Non-food Expenditures	non-food expenditure	WWWHH r2_inonfcode
Z06C.dta	R2_Z06C_Durables.dta	Non-food Expenditures and Inventory of Durable Goods, Inventory of Durable Goods	durable	WWWHH r2_durcode
Z06D.dta	R2_Z06D_GoodsHProd.dta	Non-food Expenditures and Inventory of Durable Goods, Own Account Production of Goods	goods	WWWHH r2_nfhpcode
Z07A.dta	R2_Z07A_Literacy.dta	Education, Literacy	individual	WWWHH r2_IDC
Z07B.dta	R2_Z07B_PastEnroll.dta	Education, Past Enrollment	individual	WWWHH r2_IDC
Z07C.dta	R2_Z07C_CurrEnroll.dta	Education, Current Enrollment	individual	WWWHH r2_IDC
Z08A.dta	R2_Z08A_ChronIllnes.dta	Health, Chronic Illnesses	individual	WWWHH r2_IDC
Z08B1.dta	R2_Z08B1_InjuryIllnes.dta	Health, Illnesses or Injuries	individual	WWWHH r2_IDC
Z08B2.dta	R2_Z08B2_InjuryIllnes2.dta	Health, Illnesses or Injuries	individual	WWWHH r2_IDC
Z08C.dta	R2_Z08C_Immunizations.dta	Health, Immunizations	individual	WWWHH r2_IDC
Z09A1.dta	R2_Z09A1_MaternHistory.dta	Marriage and Maternity History, Maternity History	individual	WWWHH r2_IDC
Z09A2.dta	R2_Z09A2_MaternHistory.dta	Marriage and Maternity History, Maternity History	child	WWWHH r2_IDC r2_birthodr
Z09B.dta	R2_Z09B_PrePostNatCare.dta	Marriage and Maternity History, Pre and Post-Natal Care	individual	WWWHH r2_IDC
Z09C.dta	R2_Z09C_FamPlanning.dta	Marriage and Maternity History, Family Planning	individual	WWWHH r2_IDC
Z10A1.dta	R2_Z10A1_WgEmplmntAgri.dta	Wage Employment, Agriculture	activity	WWWHH r2_activcode
Z10A2.dta	R2_Z10A2_WgEmplmntAgri2.dta	Wage Employment, Agriculture	activity	WWWHH r2_activcode
Z10B1.dta	R2_Z10B1_WgEmplmntNAgri.dta	Wage Employment, Outside Agriculture	activity	WWWHH r2_activcode
Z10B2.dta	R2_Z10B2_WgEmplmntNAgri2.dta	Wage Employment, Outside Agriculture	activity	WWWHH r2_activcode

Z11A1A.dta	R2_Z11A1A_LandOwned.dta	Farming and Livestock, Landholding - Land Owned	household	WWWHH
Z11A1B.dta	R2_Z11A1B_LandOwned2.dta	Farming and Livestock, Landholding - Land Owned	plot	WWWHH r2_plot_own_num
Z11A1C.dta	R2_Z11A1C_LandOwned3.dta	Farming and Livestock, Landholding - Land Owned	plot	WWWHH r2_plot_own_num
Z11A2A.dta	R2_Z11A2A_LandShrCrop.dta	Farming and Livestock, Landholding - Land Sharecropped/Rented/Mortgaged	household	WWWHH
Z11A2B.dta	R2_Z11A2B_LandShrCrop2.dta	Farming and Livestock, Landholding - Land Sharecropped/Rented/Mortgaged	plot	WWWHH r2_plot_shr_num
Z11A2C.dta	R2_Z11A2C_LandShrCrop3.dta	Farming and Livestock, Landholding - Land Sharecropped/Rented/Mortgaged	plot	WWWHH r2_plot_shr_num
Z11A3.dta	R2_Z11A3_LandIncrDecr.dta	Farming and Livestock, Landholding - Increase-Decrease in Holdings	household	WWWHH
Z11B1.dta	R2_Z11B1_FarmProduction.dta	Farming and Livestock, Production and Uses	crop	WWWHH r2_crocode
Z11B2.dta	R2_Z11B2_FarmProduction2.dta	Farming and Livestock, Production and Uses	household	WWWHH
Z11C1A.dta	R2_Z11C1A_SeedsPlantsXpns.dta	Farming and Livestock, Expenditures on Seeds and Young Plants	household	WWWHH
Z11C1B.dta	R2_Z11C1B_SeedsPlantsXpns2.dta	Farming and Livestock, Expenditures on Seeds and Young Plants	crop	WWWHH r2_crocode
Z11C2A.dta	R2_Z11C2A_InsectFertilXpns.dta	Farming and Livestock, Expenditures on Fertilizers and Insecticides	household	WWWHH
Z11C2B.dta	R2_Z11C2B_InsectFertilXpns2.dta	Farming and Livestock, Expenditures on Fertilizers and Insecticides	fertilizer	WWWHH r2_ft_type
Z11C2C.dta	R2_Z11C2C_InsectFertilXpns3.dta	Farming and Livestock, Expenditures on Fertilizers and Insecticides	household	WWWHH
Z11C3A.dta	R2_Z11C3A_FarmLaborXpns1.dta	Farming and Livestock, Expenditures on Hiring Labor	household	WWWHH
Z11C3B.dta	R2_Z11C3B_FarmLaborXpns2.dta	Farming and Livestock, Expenditures on Hiring Labor	labor	WWWHH r2_epl_catg
Z11C3C.dta	R2_Z11C3C_FarmLaborXpns3.dta	Farming and Livestock, Expenditures on Hiring Labor	household	WWWHH
Z11D.dta	R2_Z11D_AgriEarningXpns.dta	Farming and Livestock, Earnings from Agriculture	household	WWWHH
Z11E1A.dta	R2_Z11E1A_OwnLivestock.dta	Farming and Livestock, Livestock Ownership	household	WWWHH
Z11E1B.dta	R2_Z11E1B_OwnLivestock2.dta	Farming and Livestock, Livestock Ownership	livestock	WWWHH r2_lvestcode
Z11E2.dta	R2_Z11E2_EarnLivestock.dta	Farming and Livestock, Earning from Livestock	household	WWWHH
Z11F1.dta	R2_Z11F1_OwnFarmAssets.dta	Farming and Livestock, Ownership of Farming Assets	household	WWWHH
Z11F2.dta	R2_Z11F2_OwnFarmAssets2.dta	Farming and Livestock, Ownership of Farming Assets	equipment	WWWHH r2_equpcode
Z11F3.dta	R2_Z11F3_AgriExtension.dta	Farming and Livestock, Extension Services	household	WWWHH
Z12A1.dta	R2_Z12A1_NAgriActivity.dta	Non-Farm Enterprises/Activities, General Characteristics	household	WWWHH
Z12A2.dta	R2_Z12A2_NAgriActivity2.dta	Non-Farm Enterprises/Activities, General Characteristics	enterprise	WWWHH r2_naentrpn
Z12A3.dta	R2_Z12A3_NAgriActivity3.dta	Non-Farm Enterprises/Activities, General Characteristics	enterprise	WWWHH r2_naentrpn
Z12B.dta	R2_Z12B_NAgriIncome.dta	Non-Farm Enterprises/Activities, Income from Enterprises	enterprise	WWWHH r2_naentrpn
Z13A1.dta	R2_Z13A1_Borrowing.dta	Credit and Savings, Borrowing and Outstanding Loans	household	WWWHH
Z13A2.dta	R2_Z13A2_Borrowing2.dta	Credit and Savings, Borrowing and Outstanding Loans	loan	WWWHH r2_loan_in_num
Z13A3.dta	R2_Z13A3_Borrowing3.dta	Credit and Savings, Borrowing and Outstanding Loans	loan	WWWHH r2_loan_in_num
Z13B1.dta	R2_Z13B1_Lending1.dta	Credit and Savings, Lending and Outstanding Loans	household	WWWHH
Z13B2.dta	R2_Z13B2_Lending2.dta	Credit and Savings, Lending and	loan	WWWHH

		Outstanding Loans		r2_loan_out_num
Z13B3.dta	R2_Z13B3_Lending3.dta	Credit and Savings, Lending and Outstanding Loans	loan	WWWHH r2_loan_out_num
Z13C.dta	R2_Z13C_HHAssets.dta	Credit and Savings, Other Assets	household	WWWHH
Z14A1.dta	R2_Z14A1_RemitnsSent.dta	Remittances and Transfers, Remittances and Transfer Income Sent	household	WWWHH
Z14A2.dta	R2_Z14A2_RemitnsSent2.dta	Remittances and Transfers, Remittances and Transfer Income Sent	remittance	WWWHH r2_remts_LN
Z14B1.dta	R2_Z14B1_RemitnsGot.dta	Remittances and Transfers, Remittances and Transfer Income Received	household	WWWHH
Z14B2.dta	R2_Z14B2_RemitnsGot2.dta	Remittances and Transfers, Remittances and Transfer Income Received	remittance	WWWHH r2_remr_LN
Z15.dta	R2_Z15_HHOtherInc.dta	Other Income	assets	WWWHH r2_assettyp
Z16A.dta	R2_Z16A_ChildrenAway.dta	Children Away from Home	household	WWWHH
Z16B.dta	R2_Z16B_ChildrenAway2.dta	Children Away from Home	child	WWWHH r2_child_IDC
Z17.dta	R2_Z17_ConsumAdequacy.dta	Adequacy of Consumption	household	WWWHH

For the panel sample, in addition to the files listed above, two files were added containing information necessary to track them from the NLSS-I (Table 7).

**Table 7: Panel only household survey**

Z18A.dta	R2_Z18A_PanelTrack.dta	Panel tracking	household	WWWHH
Z18B.dta	R2_Z18B_PanelTrack2.dta	Panel tracking 2	individual	WWWHH r2p_1996IDC

**Table 8: Community-level data (rural)**

Original filename	Description	Unit of observation	Identifier
R1A1.dta	Population Characteristics and Infrastructure	Ward	WWW
R1A2.dta	Population Characteristics and Infrastructure	ethnicity	WWW V1A2_03A1A
R1A3.dta	Population Characteristics and Infrastructure	religion	WWW V1A3_03B1A
R1A4.dta	Population Characteristics and Infrastructure	Ward	WWW
R1B.dta	Population Characteristics and Infrastructure	Ward	WWW
R1C.dta	Population Characteristics and Infrastructure	Ward	WWW
R2A.dta	Access to Facilities	facility	WWW FAC
R2B1.dta	Access to Facilities	school	WWW LINE
R2B2.dta	Access to Facilities	Ward	WWW
R2C1.dta	Access to Facilities	health facility	WWW HFCODE
R2C2.dta	Access to Facilities	Ward	WWW
R3A.dta	Agriculture and Forestry	Ward	WWW
R3B.dta	Agriculture and Forestry	Ward	WWW
R3C.dta	Agriculture and Forestry	land and crop	WWW V3C_01A V3C_01B
R3D1.dta	Agriculture and Forestry	Ward	WWW
R3D2.dta	Agriculture and Forestry	agri. task	WWW TASK
R3E.dta	Agriculture and Forestry	rental items	WWW ITEM
R3F.dta	Agriculture and Forestry	Ward	WWW
R4A1.dta	Migration	Ward	WWW

R4A2.dta	Migration	activity	WWW LNO
R4B1.dta	Migration	Ward	WWW
R4B2.dta	Migration	activity	WWW LNO
R5A.dta	Development Programs	projects	WWW LNO
R5B1.dta	Development Programs	Ward	WWW
R5B2.dta	Development Programs	group	WWW LNO
R5C.dta	Development Programs	Ward	WWW
R6A.dta	Rural Primary School	Ward	WWW
R6B.dta	Rural Primary School	Ward	WWW
R6C.dta	Rural Primary School	Ward	WWW
R7A.dta	Rural Health Facility	Ward	WWW
R7B.dta	Rural Health Facility	Ward	WWW
R7C1.dta	Rural Health Facility	Ward	WWW
R7C2.dta	Rural Health Facility	place	WWW LN
R7D.dta	Rural Health Facility	Ward	WWW
R8A.dta	Markets and Prices	Ward	WWW
R8B.dta	Markets and Prices	item	WWW ITM
R8C1.dta	Markets and Prices	Ward	WWW
R8C2.dta	Markets and Prices	item	WWW ITM
R8C3.dta	Markets and Prices	crop	WWW CRP
R8D.dta	Markets and Prices	Ward	WWW

**Table 8: Community-level data (urban)**

Original filename	Description	Unit of observation	Identifier
U1A1.dta	Population Characteristics and Infrastructure	Ward	WWW
U1A2.dta	Population Characteristics and Infrastructure	ethnicity	WWW ETHN
U1A3.dta	Population Characteristics and Infrastructure	religion	WWW RELI
U1A4.dta	Population Characteristics and Infrastructure	Ward	WWW
U1B.dta	Population Characteristics and Infrastructure	Ward	WWW
U1C.dta	Population Characteristics and Infrastructure	Ward	WWW
U1D.dta	Population Characteristics and Infrastructure	Ward	WWW
U1E.dta	Population Characteristics and Infrastructure	transport	WWW TRAN
U2.dta	Access to Facilities	facility	WWW FACI
U3A.dta	Markets and Prices	Ward	WWW
U3B.dta	Markets and Prices	food item	WWW ITM
U4.dta	Quality of Life	life quality item	WWW ITM

***Constructed variables (file “c2\_nlss\_public.dta”).***

In the course of the work, World Bank and Nepal CBS research teams created a set of variables that might be useful to the other users. Created variables were constructed for both cross-sectional and panel households and placed in the appropriate sub-directories. (As in the case of the original data, the names of these files with created variables are identical for the cross-sectional and panel data sets, but placed in different sub-directories.)

**Table 9: Constructed NLSS-II variables**

<b>variable name</b>	<b>Description</b>
c2_hhsize	Household size
c2_npcexp	Annual nominal per capita consumption expenditure
c2_npcfexp	Annual nominal per capita food consumption expenditure
c2_nwquint	5 quintiles of the nominal per capita consumption expenditure (c2_npcexp)
c2_pi_nepal95	Price index to convert monetary variables into “Nepal average 1995 prices”.
c2_pi_nepal03	Price index to convert monetary variables into “Nepal average 2003 prices”
c2_nomfpln	Food poverty line in nominal prices
c2_nompln	Poverty line in nominal prices

Note: The change in price of the consumption basket between 1995-96 and 2003-04 was 47.5%.

A detailed description of the methodology used for deriving consumption variables is presented in Section 10.2, Volume 2 of the NLSS II Statistical Report. Consumption aggregates were constructed as close as possible to that of the NLSS I data, but with 3 important caveats.

- i. NLSS-II includes household weights in calculation of consumption of durables and imputation of housing rent;
- ii. NLSS-II estimated consumption flow of durables using current value of durable goods (as opposite to the value at purchase) and it takes into account that depreciation accumulates over time and therefore the correct formula does not divide total depreciation by total number of years but to take a root of the corresponding power;
- iii. “rental housing” regression was modified to have a smearing correction” in the imputation of housing rental values and the extreme outliers were excluded from the regression.

With regard to price indices, the following procedures were used.

**c2\_pi\_nepal03** is a Laspeyres price index to account for the differences in price levels across 6 NLSS-regions in 2003-04. Dividing the nominal monetary values in the NLSS II by this price index converts these nominal values into the average price level for Nepal in 2003-04.

**c2\_pi\_nepal95** is a Laspeyres price index which combines intertemporal and spatial adjustments for the differences in price levels. Dividing the nominal monetary values in the NLSS II by this price index converts these nominal values into the average price level for Nepal in 1995-96. (Note that the resulting values cannot be compared directly with the nominal NLSS-I values. If one wants to compare the NLSS-I monetary variables with that in NLSS-II, both, the NLSS-I and NLSS-II nominal monetary values should be adjusted to the average 1995-96 Nepal prices. The relevant price index for the NLSS-I is **c1\_pi\_nepal95**, available in a file called “c1\_nlss\_public”).

**c2\_nomfpln** is a food poverty line in nominal prices.

**c2\_nompln** is a total poverty line in nominal prices.

The detailed methodology of constructing price indexes and poverty lines is provided in “Poverty Trends In Nepal (1995-96 and 2003-04)”, His Majesty's Government of Nepal, National Planning Commission Secretariat, Central Bureau of Statistics, September, 2005, available from the Nepal CBS or from the World Bank.

### *Various data-related issues*

Information on “non-members” of the surveyed households has been also collected in the course of the survey. In many cases it may be useful to exclude the observations for the non-members before proceeding with analysis. Information on whether an individual is a member or not is in the roster file “Z01A.dta”, in the variable called “V01A\_10”.

Month and year in the survey are given in Nepali calendar year. The months are listed in the codes at the end of the questionnaire. Month called “Baisakh” is the first month of the year, and runs approximately from April 15 to May 14. Nepal also follows a different calendar system than in the West. According to the Nepali system, year 2005-2006 is Bikram Sambat 2062. The New Year begins in mid-April. Like the Gregorian system, there are 12 months, each month beginning around the middle of a Gregorian month.

<b>Bikram Month</b>	<b>Gregorian Month</b>
Baisakh	April – May
Jestha	May – June
Asadh	June – July
Shrawan	July – August
Bhadra	August – September
Aswin	September – October
Kartik	October – November
Mangsir/Marg	November – December
Paush	December – January
Magh	January – February
Falgun	February – March
Chaitra	March – April

<b>Bikram Year</b>	<b>Gregorian Year</b>
2057	2000-2001
2058	2001-2002
2059	2002-2003
2060	2003-2004
2061	2004-2005
2062	2005-2006
2063	2006-2007
2064	2007-2008
2065	2008-2009
2066	2009-2010

### *Converting Local Area Units into Hectares.*

Area data are collected in two non-metric Nepali units called “ropani” and “bigha”. “Ropani” can be subdivided to “Aana” and “Paisa”. “Bigha” can be subdivided to “Kattha” and “Dhur”. The following conversion rules apply:

Ropani: 1 ropani = 16 aana 1 aana = 4 paisa 1 paisa = 85.56 sq. ft
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Bigha: 1 bigha = 20 katha 1 katha = 20 dhur 1 dhur = 182.35 sq. ft
---

1 Bigha ~ 13 Ropani. 1 sq. ha = 9.2903 * 0.000001 sq. ft.
--

If unit for land area is “ropani”, then three columns for the land area represent “Ropani”, “Anna” and “Paisa”. If unit for land area is “bigha”, then three columns for the land area represent “Bigha”, “Kattha” and “Dhur”.

The following formula should be used to convert area units from local units into square feet.

Ropani: Sq ft = (ropani*64+aana*4+paisa)*85.56
Bigha: Sq ft = (bigha*400+katha*20+dhur)*182.35

The following formula should be used to convert area units from local units into hectares.

$$\text{Ropani: Ha} = (\text{ropani} * 64 + \text{aana} * 4 + \text{paisa}) * 0.000794875$$

$$\text{Bigha: Ha} = (\text{bigha} * 400 + \text{katha} * 20 + \text{dhur}) * 0.001693114$$

#### ***Converting Nepali weight units into Kgs***

The following formula should be used to convert weight units from local units into kilograms.

$$\begin{aligned} 1 \text{ maund} &= 37324 \text{ grams} = 37.3 \text{ kg} \\ 1 \text{ muri} &= 72000 \text{ grams} = 72 \text{ kg}. \end{aligned}$$

#### ***Converting Nepali volume units into liters***

The following formula should be used to convert volume units from local units into liters.

$$\begin{aligned} 1 \text{ Manna} &= 0.568 \text{ L} = 568 \text{ ml}. \\ 1 \text{ Pathi} &= 8 \text{ Mannas} = 4.544 \text{ L} \\ 1 \text{ Kuruwa} &= 1.2 \text{ Manna} = 0.682 \text{ L} = 682 \text{ ml}. \end{aligned}$$

#### ***Comparing value codes between NLSS-I and II***

List of codes can be found in the end of the NLSS-II questionnaire, pages 69-72. Some of these codes have changed between the NLSS-I and II. The major differences are as follows.

- i. Country codes were expanded and revised;
- ii. Ethnicity codes were expanded and revised;
- iii. Education codes were changed, for the value code “11”. In NLSS I it stands for CLASS 11, while in NLSS –II it stands for the SLC education level;
- iv. Occupation and industry codes were revised.