

Components of the Income Aggregate: “Living Standards Survey, Nepal 1996”¹

Prepared for the Rural Income Generating Activities (RIGA) Project²

of the Agricultural Development Economics Division,

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This document provides the survey-specific details associated with the income aggregate construction. For more information about the RIGA project, please refer to <http://www.fao.org/es/esa/riga>. For additional detail regarding the overall RIGA income aggregate construction approach, please refer to Carletto, et al (2007), “Rural Income Generating Activities Study: Methodological note on the construction of income aggregates,” found on the RIGA website.

The Nepal Living Standards Survey was conducted throughout the years 1995 and 1996. A two-stage stratified sample procedure was used to select the sample frame. The sample frame was drawn from the 1991 Population Census of Nepal.

In the first stage, 275 wards or sub-wards were selected as Primary Sampling Units with probability proportional to size from each of the four ecological strata. In the second stage, 12-16 households were selected from each PSU with equal probability. The sample is self-weighting.

The sample for the NLSS I was set at 3388 households; however, 3,373 households actually have completed surveys in the raw data. Additional three households need to be dropped because their survey data is incomplete. As a result, the final sample size is 3,370 households.

There are 2,655 rural households and 715 urban households in the dataset. In the original datasets, URBRURAL is the variable distinguishing urban from rural households. The definitions for “urban” for the 1981 and 1991 Census was: Localities with 9000 inhabitants or more.³ In the calculation of the income aggregate, URBRURAL is renamed to URBAN in order to use the same variable name across different surveys.

¹ The information provided in this document relies substantially upon the Data User’s Guide, provided with the 1995/1996 Nepal NLSS data..

² The RIGA Project is a collaboration between FAO, the World Bank and American University in Washington, D.C. Original data can be obtained from the World Bank’s Living Standards Measurement Study by visiting the LSMS website at: <http://www.worldbank.org/lsm>.

³ Source: <http://157.62.21.4/SHARE1/UN%20Demographics/technote/english/notes/table02.htm> (United Nations Demographic Yearbook-Historical Supplement 1st issue, DYB-CD, data from 1948 to 1997).

All money amounts are in the local currency, Nepali Rupees. In 1996, the official exchange rate was 56.69 Rupee = 1.0 USD.⁴ The income aggregates are calculated at the household level and all aggregates are annualized.

The various household-level modules of the NLSS survey can be linked using the unique household identifier variable: WWWHH. This variable is renamed to HH in the final income aggregate file to provide for consistency across countries within the study.

Regarding income from different sources, revenues and costs were disaggregated when such information was available. The disaggregated sources for each income component are summarized in output variables column of Table 1. The net variables and the data files included in the final total income aggregate (Income.dta) are in **bold**. **Unless otherwise noted, all variables included in the aggregate income variable are net of costs.**

Comments

- In all sections, the raw data undergoes a transformation (it is annualized, aggregated, taken from person to household level, etc) before a check for outliers takes place.
- In the Crop Production section, the reference period is the previous 12 months. Two total crop income variables are created: *cropincome1* and *cropincome2*. *Cropincome1* includes estimates of own crop consumption based on the agricultural production module of the household questionnaire. *Cropincome2* includes estimates of own crop consumption based on the food expenditure section of the questionnaire in which household consumption was recorded and updated periodically over a given time frame.
- The reference period for the consumption of own produce (from the food expenditure section of the questionnaire, corresponding to *Cropincome2*) is based on the previous month.
- For the Livestock and Rentagric and Transfers sections, the reference period is the previous 12 months.
- Rentagric calculates gross and net income from the rented and sharecropped agricultural land. Although both are calculated, the income aggregate only includes the gross estimate.
- In the Wage employment section, the reference period is daily, weekly and monthly. All household members 10 years and older were interviewed.
- The classification of wage employment activities into industries and skilled/unskilled categories follow the United Nations International Standard Industrial Classification (ISIC) and the International Standard Classification of Occupations (ISCO) 88 codes. Given these standards, the employment sectors include: (1) Agriculture, Livestock, Hunting and Fishing, (2) Mining, (3) Manufacturing, (4) Electricity and Utilities, (5) Construction, (6) Commerce, (7) Transportation, Storage and Communications, (8) Finance, Insurance and Real Estate, (9) Services and (10) Other Industries. The job categories are divided into skilled, unskilled and other.
- Earnings from wage employment include all in-cash and in-kind benefits in cash received from the employer.
- The Self Employment section accounted for income from non-farm enterprises owned by the household. The reference period is the last 12 months or the duration that the enterprise has been in business in the last 12 months.
- The classification of non-farm enterprise activities into industries categories also follows the ISIC codes. Given these standards, the non-farm enterprise sectors include: (1) Agriculture, Livestock, Hunting and Fishing, (2) Mining, (3) Manufacturing, (4) Electricity and Utilities, (5) Construction, (6) Commerce, (7) Transportation, Storage and Communications, (8) Finance, Insurance and Real Estate, (9) Services and (10) Other Industries.

⁴ Exchange rate used comes from the World Bank World Development Indicators database.

- For all sections, whenever information was available regarding the share of a business, enterprise, or any other income activity owned by the household, the income earned from that activity was weighted by the share owned by the household.
- Only information on present household members is considered in the final income aggregate. Present is defined as a having been absent from the households for 6 or fewer months in the previous 12 months for non-head household members. Household heads are included regardless of their location status since they can still serve as primary income sources. Thus, drop if S01A_09 <= 6 & S01A_03 != 1.
- Participation and income share variables for all income components are included in the final income aggregate.
- A final outlier check is imposed at the end of the Aggregateincome.do file in which households with income shares from any given activity greater than or less than 3 (300%) are dropped from the final income aggregate. Using this criteria, 48 households are dropped from this survey.

The programs that calculate each household's income aggregate component are summarized in Table 1. Tables 2 and 3 summarize the results from the created income aggregate.

Table1

do file	input dta files	output dta files	output variables
Sample.do	Z00.DTA	Sample.dta	
prices.do	Z12B1.dta Z12E1B.dta z05a.dta Sample.dta	prices.dta	pricedata1 pricedata2 pricedata3 pricedata4
Foodown.do	z05a.dta prices.dta Sample.dta	Food.dta Foodown.dta	foodnonpurch(imp) foodown(imp) foodownlivstock(imp) foodowncrop(imp)
Rentagric1.do Rentagric2.do	Z12A2C.dta Z12A2B.dta bijan.dta Z12A1B.dta Z12A1C.dta Z12A1D.dta Sample.dta	aggrentexp.dta aggrentinc.dta Rentagric.dta Rentagricnet.dta	farmrntexp(imp) shrcropexp(imp) farmrntinc(imp) shrcropinc(imp) farmrnt(imp)
Cropincome1.do	Z12D.dta	otherfarminc.dta	otherfarminc(imp) otherfarmexp(imp)
Cropincome2.do	Z12C1B.dta Z12C2B.dta Z12C3C.dta	seedexp.dta chfertexp.dta laborex.dta cropexp.dta	seedexpimp chfertexpimp laboreximp cropexp(imp)
Cropincome3.do	Z12B1.dta Z12D.dta cropexp.dta	cropinc.dta cropbypr.dta Cropincome.dta	cropown1(imp) cropsold(imp) croplord(imp) cropbypr(imp) cropincome1(imp)

	cropinc.dta cropbypr.dta agrentinc.dta aggrentexp.dta otherfarminc.dta Food.dta Sample.dta		cropincome2(imp)
Employment.do	Z11A1.dta Z11A2.dta Z11B1.dta Z11B2.dta Z01C.dta Sample.dta	employ1.dta employ2.dta Employment.dta	wge (by industry, skilled) wgem wgeimp
Livestock.do	Z12E1B.dta Z12E12.dta Sample.dta Food.dta Sample.dta	livstinc.dta livstexp.dta Livestock.dta	livstsold(imp) livstbyrsoldimp livstinptimp livstinc(imp)
Otherincome.do	Z16.dta Sample.dta	Otherincome.dta	otherinc(imp)
Selfemp.do	Z13A2.dta Z13B.dta Sample.dta	Selfemp.dta	hhrev(imp) hhexp(imp) selfempinc(imp)
Transfers.do	Z15A2.DTA Z15B2.DTA Z16.DTA Sample.dta	transferprivexp.dta transferprivinc.dta transpriv.dta pensions.dta Transfers.dta	ikprivtransexpimp d_sent12imp ikprivtransincimp d_cash12imp transprivimp pensions(imp) pubtrans privtrans transferstot(imp) transfersgross(imp)
AggregateIncome	Sample Cropincome Employment Livestock Otherincome Selfemp Transfers Rentagric	Income	agr_wge nonagr_wge crop1 crop2 livestock selfemp transfer other totincome1 totincome2

Table 2

Nepal 1996		2601 Rural HH Observations		Rural, Weighted, Rupees				Rural, Weighted, USD	
Variable		# Participants	Participation Rate	Returns to Participation- Participant HHs	Returns to Participation- All HHs	Share of Total Income- All HHs (Mean of Shares)	Share of Total Income- All HHs (Share of Means)	Returns to Participation- Participant HHs	All HHs
agr_wge	Wage Employment- Agriculture	1,050	41.67%	7,799	3,250	16.67%	11.94%	138	57
nonagr_wge	Wage Employment- Nonfarm	949	35.38%	13,786	4,878	15.75%	17.92%	243	86
crop1	Crop Production	2340	88.81%	11,223	9,967	37.66%	36.61%	198	176
livestock	Livestock Production	2116	80.47%	4,380	3,525	11.25%	12.95%	77	62
selfemp	Non-ag Self Employment	517	20.08%	13,362	2,683	8.65%	9.86%	236	47
transfer	Total Transfers	683	26.43%	9,609	2,540	9.00%	9.33%	169	45
other	Other Income Sources	226	8.46%	4,542	384	1.03%	1.41%	80	7
totincome1	Total Household Income-crop1	2608	99.95%	27,241	27,226	100.00%	100.00%	481	480

Percent Rural (Weighted)	92.67%
Rupee/USD July 26, 1996	56.69

Notes:

1. Source data: 1996 Living Standards Survey (NLSS).
2. Exchange rate used comes from the World Bank *World Development Indicators* database.
3. The variable "crop1" is distinguished from "crop2" in the way home consumption of own production of crops (owncons) is calculated. In crop1, owncons equals total harvest minus crop sold, crop allocated for sharecropping expenditure, and crop allocated for seed, fodder and by products. For crop2, owncons is calculated from the "Consumption of Own Produce" section of the household questionnaire. Total household income "totincome1" and "totincome2" are therefore calculated with the corresponding crop income variable.
4. All values reported are annual and net of costs (with the exception of income from transfers and land rent, which are gross receipts).

Table 3

Nepal 1996		2601 Rural HH Observations		Rural, Weighted, Rupees				Rural, Weighted, USD	
Variable		# Participants	Participation Rate	Returns to Participation- Participant HHs	Returns to Participation- All HHs	Share of Total Income- All HHs (Mean of Shares)	Share of Total Income- All HHs (Share of Means)	Returns to Participation- Participant HHs	All HHs
agr_wge	Wage Employment- Agriculture	1,050	41.67%	7,799	3,250	17.80%	11.94%	138	57
nonagr_wge	Wage Employment- Nonfarm	949	35.38%	13,786	4,878	16.88%	17.92%	243	86
crop2	Crop Production	2431	92.62%	6,981	9,967	32.15%	36.61%	123	176
livestock	Livestock Production	2116	80.47%	4,380	3,525	13.27%	12.95%	77	62
selfemp	Non-ag Self Employment	517	20.08%	13,362	2,683	9.06%	9.86%	236	47
transfer	Total Transfers	683	26.43%	9,609	2,540	9.73%	9.33%	169	45
other	Other Income Sources	226	8.46%	4,542	384	1.12%	1.41%	80	7
totincome2	Total Household Income-crop2	2609	100.00%	23,726	27,226	100.00%	100.00%	419	480

Percent Rural (Weighted)	92.67%
Rupee/USD July 26, 1996	56.69

Notes:

1. Source data: 1996 Living Standards Survey (NLSS).
2. Exchange rate used comes from the World Bank *World Development Indicators* database.
3. The variable "crop1" is distinguished from "crop2" in the way home consumption of own production of crops (owncons) is calculated. In crop1, owncons equals total harvest minus crop sold, crop allocated for sharecropping expenditure, and crop allocated for seed, fodder and by products. For crop2, owncons is calculated from the "Consumption of Own Produce" section of the household questionnaire. Total household income "totincome1" and "totincome2" are therefore calculated with the corresponding crop income variable.
4. All values reported are annual and net of costs (with the exception of income from transfers and land rent, which are gross receipts).