# **Components of the Income Aggregate:**

## "Living Standards Measurement Study, Albania 2005"

Prepared for the Rural Income Generating Activities (RIGA) Project<sup>1</sup>

of the Agricultural Development Economics Division,

Food and Agriculture Organization

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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 Albania Living Standards Measurement Study survey was carried out in a period of four months in 2005. The household survey was conducted from May 2005 until early July 2005, with an additional visit to agricultural households in October 2005. The price questionnaire took place from May 2005 through July 2005 whereas the community survey was administered during Fall 2005.

The sample for this LSMS was taken based on the criteria set up for the 2002 LSMS in which a two-stage stratified sampling procedure was applied such that in which cities and villages in Albania were divided into Enumeration Areas (EAs), the primary sampling unit, and then EAs were stratified geographically according to (1) the 4 geographic regions, (2) urban, other urban and rural, and (3) if the EA was Tirana. The selection of the EAs corresponds to that of the most recent Population Census, updated to account for migration flows in the Tirana and Durres EAs. In addition, as in the 2002 LSMS, the largest EAs were divided and the smallest ones grouped together.

3,840 households<sup>2</sup> from 455 Primary Sampling Units (PSUs) were selected for the final sample. The sampling unit is one occupied dwelling or housing unit (HU).<sup>3</sup> From each EA, 8 households

<sup>&</sup>lt;sup>1</sup> 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/lsms.

<sup>&</sup>lt;sup>2</sup> Of these households, 200 were over-sample households for which the income aggregate was also calculated, but which were not included in the creation of any subsequent tables and analyses.

<sup>&</sup>lt;sup>3</sup> A housing unit refers to the space occupied by one household.

were selected for the base sample and 4 additional households as substitutes, totaling 12 household units per EA. Two-hundred Roma households were oversampled, identified by the variable "OVERSAMPLE", which should be dropped out in order results from the data to be representative.

In the original datasets, URBRUR is the variable distinguishing urban from rural households. In the do-files, URBRUR is renamed to URBAN in order to use the same variable name across different surveys. Rural and urban areas are contained in each strata.<sup>4</sup> The exception is for Tirana, the fourth strata and major urban district which is organized into "urban" and "other urban."

Although certain PSUs are representative (e.g. Tirana), the overall sample is not self-weighting; therefore, the household weight variable, WEIGHT, should be applied to all descriptive analyses. The average household size in Albania is 4.2 persons.<sup>6</sup> All money amounts are in Old Leks (ALK). In 2005, the official exchange rate was 998.7 ALK = 1.0 USD.<sup>7</sup> The income aggregates are calculated at the household level and all aggregates are annualized.

The various household-level modules of the LSMS survey can be linked using the unique household identifier, HHID (created using the PSU and HH variables). To merge the community and price questionnaire modules with the household questionnaire, the variable M0\_Q00 (PSU) should be used.

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 are in **bold**. **All variables included in the aggregate income variable are net of costs, unless otherwise noted**.

### **Comments**

- In all sections, the raw data undergoes a transformation (it is annualized, aggregated, taken from person household level, etc) before a check for outliers takes place.
- In the Crop Production section, the reference period is the previous cropping season (October 2004- September 2005). 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 two-week Food Booklet completed by each household surveyed.
- For the Livestock, Other Income, Rentagric and Transfers sections, the reference period is the previous 12 months.
- Other Income includes income from nonfarm rental assets.
- Two estimates of Transfer income are calculated: gross and net. The household income aggregate, however, considers the gross value rather than net.

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<sup>&</sup>lt;sup>4</sup> The specific definition of rural is not documented within the Albania 2005 LSMS Basic Information Document.

<sup>&</sup>lt;sup>5</sup> Albania 2005 LSMS Basic Information Document.

<sup>&</sup>lt;sup>6</sup> Estimate obtained from Albania 2005 LSMS.

<sup>&</sup>lt;sup>7</sup> Exchange rate used is the period average official exchange rate from the World Development Indicators.

- Rentagric calculates gross income from the rental of agricultural land.
- In the Wage employment section, the reference period is the duration of employment as specified in the questionnaire for all jobs worked in the last 7 days (accounting for permanent work from which the respondent may have been absent in the previous 7 days.
- The industry codes used for classifying wage employment follow the Statistical Classification of Economic Activities in the European Community, Rev. 1.1 (NACE) codes which closely follow the United Nations International Standard Industrial Classification (ISIC). Given the survey classification of each employed household member by industry, the employment sectors include: (1) Agriculture 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 and (9) Services.
- The division of employment into skilled and unskilled categories followed the International Standard Classification of Occupations (ISCO 88) codes.
- Earnings from wage employment are net and include all in-cash and in-kind benefits received from the employer.
- The Self Employment (Selfemp) section accounted for income from nonfarm enterprises owned by the household. The reference period was the last 12 months (for ownership) and the previous month (for reporting of revenues and costs).
- Net annual income from nonfarm enterprises is disaggregated by industry (following the NACE/ISIC codes) to convey the diversity of household activities and to obtain a similar breakdown to that created for nonfarm wage employment.
- 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.
- Participation and income share variables are also included in the final income aggregate.
- A final outlier check is imposed at the end of the income aggregate construction in which households with income shares from any given activity greater than or less than 3 (300%) are dropped from the final income aggregate. From this survey, 2 households are dropped using this criteria.

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

Table 1

do file name	Input Data Files	<b>Output Data Files</b>	<b>Key Output Variables</b>	Notes
Sample.do	identification_cl.dta Wieghts_cl.data	Sample.dta	· · · · · ·	
prices.do	part3_roster.dta part4_roster.dta part6_roster.dta booknonpurchased_cl.dta data record.dta	prices.dta	pricedata1 pricedata2 pricedata3 pricedata4 pricedata5 pricedata6 pricedata7 pricedata8 pricedata9 pricedata10 pricedata11 pricedata12	Creates a set of prices for calculating consumption of home-produced crops.
Food.do	bnonpurchased_cl.dta prices.dta SAMPLE.DTA	foodowncrop.dta foodownlivestock.dta	foodgiftorinkindcropimp foodowncropimp foodgiftinkindlivstckimp foodownlivestockimp	household
CropIncome1.do	part9_roster_a.dta part9_roster_b.dta part6_roster.dta filters.dta SAMPLE.DTA	cropexp1.dta cropexp2.dta cropbypr.dta	cropexp1imp cropexp2imp cropbyprsold1imp cropbyprown1imp	Calculates net income from agricultural production of crops.
Cropincome2.do	part3_roster.dta part4_roster.dta filters.dta foodowncrop.dta SAMPLE.DTA	cropinc1.dta cropinc2.dta Cropincome.dta	cropsold1imp cropown1imp cropsold2imp cropown2imp cropincome1imp cropincome2imp	
Employment.do	labourA_cl.DTA labourB_cl.DTA labourC_cl.DTA SAMPLE.DTA	employ1.dta employ2.dta <b>Employment.dta</b>	wgeimp1_1 wgeimp2_1 wgeimp3_1 wgeimp4_1 wgeimp5_1 wgeimp6_1 wgeimp7_1 wgeimp8_1 wgeimp9_1 wgeimp10_1 wgeimp1_2	Calculates net household income from wage employment by industry and skilled/unskilled classification.

			wgeimp2_2 wgeimp3_2 wgeimp4_2 wgeimp5_2 wgeimp6_2 wgeimp7_2 wgeimp8_2 wgeimp9_2 wgeimp1_3 wgeimp2_3 wgeimp2_3 wgeimp4_3 wgeimp5_3 wgeimp5_3 wgeimp5_3 wgeimp6_3 wgeimp6_3 wgeimp7_3 wgeimp8_3 wgeimp9_3 wgeimp9_3 wgeimp10_3	
Livestock.do	part9_roster_b.DTA part5_roster.dta part6_roster.dta filters.dta foodownlivestock.dta SAMPLE.DTA	livstexp.dta livstinc.dta livestbypr.dta <b>Livestock.dta</b>	livstexpimp livstsoldimp livstbyprsoldimp <b>livstincimp</b>	Calculates net income from livestock sales and livestock byproduct sales.
Otherincome.do	other_income_cl.dta SAMPLE.DTA	Otherincome.dta	nonfarmrntimp	Calculates net income from non-labor, nonfarm sources.
Selfemp.do	non_farm_business_cl.dta SAMPLE.DTA	a Selfemplinc.dta selfempexp.dta Selfemp.dta	hhrevincimp hhrexpenditureimp selfimp1 selfimp2 Selfimp3 Selfimp4 Selfimp5 Selfimp6 Selfimp7 Selfimp8 Selfimp9 Selfimp9	Calculates net income from non-agricultural household enterprises, at the enterprise and household level.
Transfers.do	migrationC_cl.dta migrationC_cl.dta	transfprivchild.dta transfprivchild2.dta	i_cash_chiimp i_kind_chiimp privtranschildimp i_cash_chiimp2	Calculates gross income from public and private transfers.

other_income_cl.dta social_assistance_cl.dta SAMPLE.DTA	transfprivinc.dta pensions1.dta pensions2.dta pensions3.dta socbenef1.dta socbenef2.dta <b>Transfers.dta</b>	i_kind_chiimp2 privtranschild2imp transfprivincimp pensions1imp pensions2imp pensions3imp socbenef1imp socbenef2imp transfersgrossimp	
Aggregateincome Cropincome.dta Employment.dta Livestock.dta Otherincome.dta Selfemp.dta Transfers.dta Sample.dta	Income.dta	agr_wge nonagr_wge crop1 crop2 livestock other selfemp transfer totincome1 totincome2	Participation and Income Share variables are also included in the final income aggregate.

Table 2

Albania 2005	1,637 Rural HH Observations		Rural, Weighted, Old Leks				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	Returns to Participation- All HHs
agr_wge	Wage Employment- Agriculture	90	5.30%	3,040,772	161,303	2.60%	3.41%	3,045	162
nonagr_wge	Wage Employment- Nonfarm	459	30.01%	3,477,352	1,043,451	17.42%	22.05%	3,482	1,045
crop1	Crop Production	1529	93.43%	949,163	886,778	24.52%	18.74%	950	888
livestock	Livestock Production	1444	85.43%	831,665	710,497	20.21%	15.02%	833	711
selfemp	Non-Ag Self Employment	164	10.93%	8,407,009	918,969	7.18%	19.42%	8,418	920
transfer	Total Transfers	1235	74.44%	1,160,013	863,479	25.05%	18.25%	1,162	865
other	Other Income Sources	307	18.84%	781,826	147,280	3.02%	3.11%	783	147
totincome1	Total Household Income	1636	99.98%	4,732,758	4,731,756	100.00%	100.00%	4,739	4,738

Percent Rural		
(Weighted)	51.39%	
ALK/USD		
(2005)	998.7	

#### Notes:

- 1. Source data: 2005 Living Standards Measurement Survey.
- 2. All values are reported in OLD Leks
- 3. The variable "crop1" is distinguished from "crop2" in the way home consumption of own production of crops (owncons) is calculated. In crop1, owncons = crop harvested minus crop sold. For crop2, owncons is based on the consumption reported in the 14 day Food Booklet. 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).
- 5. Exchange rate used is the period average official exchange rate from the World Development Indicators.

Table 3

Albania 2005	1,637 Rural HH Observations	Rural, Weighted, Old Leks				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	Returns to Participation- All HHs
agr_wge	Wage Employment- Agriculture	90	5.30%	3,040,772	161,303	2.77%	3.63%	3,045	162
nonagr_wge	Wage Employment- Nonfarm	459	30.01%	3,477,352	1,043,451	18.13%	23.48%	3,482	1,045
crop2	Crop Production	1557	94.69%	632,542	598,958	17.17%	13.48%	633	600
livestock	Livestock Production	1444	85.43%	831,665	710,497	23.34%	15.99%	833	711
selfemp	Non-Ag Self Employment	164	10.93%	8,407,009	918,969	7.37%	20.68%	8,418	920
transfer	Total Transfers	1235	74.44%	1,160,013	863,479	28.02%	19.43%	1,162	865
other	Other Income Sources	307	18.84%	781,826	147,280	3.20%	3.31%	783	147
totincome2	Total Household Income	1636	99.98%	4,444,878	4,443,936	100.00%	100.00%	4,451	4,450

Percent Rural		
(Weighted)	51.39%	
ALK/USD		
(2005)	998.7	

### Notes:

- 1. Source data: 2005 Living Standards Measurement Survey.
- 2. All values are reported in OLD Leks
- 3. The variable "crop1" is distinguished from "crop2" in the way home consumption of own production of crops (owncons) is calculated. In crop1, owncons = crop harvested minus crop sold. For crop2, owncons is based on the consumption reported in the 14 day Food Booklet. Total household income "totincome1" and "totincome2" are therefore calculated with the corresponding crop income variable.
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