

Components of the Income Aggregate: “Indonesia Family Life Survey, Wave 1”

Prepared for the Rural Income Generating Activities (RIGA) Project¹

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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 Indonesia Family Life Survey, Wave 1 (IFLS1) is the first wave in a national panel survey undertaken to collect data at the individual and household level on fertility, health, education, migration and employment. The IFLS1 was carried out in 1993 and 1994 with fieldwork taking place in two rounds, the first from August through November of 1993, and the second from September 1993 through January 1994.

The sampling frame for the IFLS1 followed a two-stage stratified sampling procedure based on provinces and urban/rural location. Of the 13 provinces were chosen for the survey, 321 enumeration areas (EA) were randomly selected, from which 20 households were then randomly sampled if the EA was urban, and 30 were sampled if the EA was rural. 7,730 households were sampled for the survey and 7,039 interviews were completed (91.1%). 185 households partially completed the survey (2.4 of the sample). The final data contains 7,224 households.

There are 3,436 urban households and 3,788 rural households in the dataset. In the original datasets, SC05 is the variable distinguishing urban from rural households. In the calculation of the income aggregate, SC05 is renamed to URBAN in order to use the same variable name across different surveys.

Since the sample is not self-weighting, household weights (HHWT) were calculated based upon the probability of selection. The average household size in Indonesia is 4.57 persons.² All

¹ 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>. Data for Indonesia can be obtained directly from RAND at <http://www.rand.org/labor/FLS/IFLS/>.

money amounts are in the local currency, Rupiah (Rp). In 1993, the official exchange rate was 2,029 Rp = 1.0 USD.³ **The income aggregates are calculated at the household level and all aggregates are annualized.**

The household-level modules of the IFLS1 survey can be linked using the unique household identifier, CASE. This variable is renamed HH for consistency across countries within the study. To merge the community questionnaire with the household questionnaire, the variables COMMID93 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 12 months, which contains the previous crop season.
- For the Livestock, Other Income, Rentagric and Transfers sections, the reference period is the previous 12 months.
- Other Income includes income from the rental of household nonfarm assets and earnings from miscellaneous non-labor sources.
- For Transfer income, two estimates are calculated: gross and net. The household income aggregate, however, considers the gross value rather than net.
- 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 the primary and secondary full-time and part-time jobs held in the last 7 days and, if not in the last 7 days, all work in the last 12 months.
- 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 the survey classification of each employed household member by industry, 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.
- Earnings from wage employment are net and include all in-cash and in-kind benefits in cash received from the employer.
- The Self Employment (SelfEmp) section accounts for net income from nonfarm enterprises owned by the household. The reference period was the last 12 months. Income from nonfarm enterprises is disaggregated by industry (following the ISIC Codes) in order to convey information regarding the diversity of household activities.

² Estimate from IFLS I data.

³ 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.
- Participation and income share variables are also 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. Table 2 summarizes the results from the created income aggregate.

Table 1

Program Name (.do)	Input Data Files	Output Data Files	Output Variables	
Sample	BK_SC	Sample		
Cropincome	BUK2UT1	Cropincome	cropincimp cropexpimp cropincomeimp	
Employment ⁴	indus93a.dta indus93b.dta BUK2PH1 BUK3TK1 BUK3TK2 SAMPLE	employ1 employ2 Employment	wgeimp wgeimp1_1 wgeimp2_1 wgeimp3_1 wgeimp4_1 wgeimp5_1 wgeimp6_1 wgeimp7_1 wgeimp8_1 wgeimp9_1 wgeimp10_1 wgeimp1_3 wgeimp2_3 wgeimp3_3 wgeimp4_3 wgeimp5_3	wgeimp1_2 wgeimp2_2 wgeimp3_2 wgeimp4_2 wgeimp5_2 wgeimp6_2 wgeimp7_2 wgeimp8_2 wgeimp9_2 wgeimp10_2 wgeimp6_3 wgeimp7_3 wgeimp8_3 wgeimp9_3 wgeimp10_3
Livestock	BUK2HR1 BUK2UT2 BUK3HI1 SAMPLE	livstrent1 livstrent2 livstrent3 livestock	livstinc1imp livstexp1imp livstrent1imp livstinc2imp livstexp2imp livstrent2imp livstinc3imp livstexp3imp livstrent3imp livstincomeimp	

⁴ The Employment do file refers to three other do files that are not listed in Table 2: industryconversiona1.do, industryconversionb1.do, industryconversionc1.do, industryconversiona2.do, industryconversionb2.do and industryconversionc2.do. These do files are responsible for translating to English and numerically coding the industries and occupations that were reported in the survey in Bahasa Indonesia. To accomplish this feat with comparability across IFLS waves, the do files integrate codes from the IFLS 2000 survey. The output datasets are: indus93a.dta, indus93b.dta and indus93b2.dta and are also used in the Selfemp do file.

Other	BUK2PH2 BUK2HR1 BUK3HI1 SAMPLE	othinc1 othinc2 othinc3 Other	othinc1imp othinc2imp othinc3imp othinc4imp nonfarmrntimp otherincimp
Rentagric	BUK2HR1 BUK2UT2 SAMPLE	agrrent1 agrrent2 Rentagric	agrent1imp agrent2imp farmrntimp
Selfemp	indus93a.dta indus93b2.dta BUK2PH1 BUK2NT1 BUK2NT2 SAMPLE	Selfemp	hhrevimp hhexpimp hhnetimp selfimp1 selfimp2 selfimp4 selfimp5 selfimp6 selfimp7 selfimp8 selfimp9 selfimp10
Transfers1	BUK2PH2 SAMPLE	Othtrans	penstransimp privtrans1imp
Transfers2	BUK3BA1 BUK3BA4 BUK3BA7A BUK3BA8 BUK3BAB BUK3TF1 BUK3TF3 SAMPLE Othtrans	Privtrans1 Privtrans2 Transfers	privtransincimp privtransexpimp transferincimp transfersentimp privtrans pubtrans transfertotimp transfergrossimp

AggregateIncome	Sample Cropincome Employment Livestock Other Rentagric Selfemp Transfers	Income	agr_wge nonagr_wge crop livestock selfemp transfer other totincome1
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Table 2

Indonesia 1993		3,745 Rural HH Observations		Rural, Weighted, Rupiah				Rural, Wieghted, USD	
<i>Variable</i>		<i># Participants</i>	<i>Participation Rate</i>	<i>Returns to Participation- Participant HHs</i>	<i>Returns to Participation- All HHs</i>	<i>Share of Total Income- All HHs (Mean of Shares)</i>	<i>Share of Total Income- All HHs (Share of Means)</i>	<i>Returns to Participation- Participant HHs</i>	<i>Returns to Participation- All HHs</i>
agr_wge	Wage Employment- Agriculture	649	19.80%	63,930	12,656	6.78%	2.66%	31	6
nonagr_wge	Wage Employment- Nonfarm	966	26.22%	172,559	45,247	10.07%	9.51%	85	22
crop1	Crop Production	2,262	56.83%	228,493	129,864	36.25%	27.29%	113	64
livestock	Livestock Production	1,157	28.74%	149,518	42,967	7.36%	9.03%	74	21
selfemp	Non-ag Self Employment	1,140	30.37%	517,735	157,215	20.14%	33.04%	255	77
transfer	Total Transfers	2,672	70.97%	80,191	56,909	15.79%	11.96%	40	28
other	Other Income Sources	412	11.13%	278,696	31,016	3.60%	6.52%	137	15
totincome1	Total Household Income	3,677	98.04%	485,370	475,873	100.00%	100.00%	239	234

Percent Rural (Weighted)	65.56%
Rupiah/USD (1993)	2,029.92

Notes:

1. Source data: Indonesia Family Life Survey, Wave 1.
2. Exchange rate used comes from the World Bank *World Development Indicators* database.
3. All values reported are annual and net of costs (with the exception of income from transfers and land rent, which are gross receipts).