Annex 1: The 2007 Timor-Leste Survey of Living Standards

TLSLS 2007

The 2007 Timor-Leste Survey of Living Standards (TLSLS) is the second national survey of living standards for Timor-Leste. The first national survey, the Timor-Leste Living Standards Survey (TLSS), was undertaken in 2001 during the months of August to November. The 2001 TLSS had a modest, though nationally representative, sample of 1800 households from 100 sucos covering one percent of the population. Being the first national living standards survey of its kind following the independence referendum of August 1999, the TLSS provided a wealth of information on living conditions in the country as an input into the first National Development Plan. The second national living standards survey, the TLSLS, has been undertaken to update this information and is also expected to provide an input into the development of the second National Development Plan.

It is notable that the TLSLS is a comprehensive multi-module survey. The scope of topics covered by the survey is very broad, and encompasses most of those that would be covered under more specialized surveys such as the Demographic and Health Survey, the Multiple Cluster Indicators Survey and a typical labor force survey.

The TLSLS was launched on 27th March, 2006. Unlike its predecessor, this survey was designed to run over a period of a full year in order to better account for any seasonal variation in different indicators. However, after about eight weeks of fieldwork, the survey had to be suspended due to the outbreak of conflict in the country. The survey was resumed on January 9, 2007, and survey operations have progressed without interruption since then. Fieldwork for the survey concluded on January 22, 2008. At the time of the resumption of the survey, a decision was made to revisit the households who were interviewed in 2006 prior to the interruption of the survey. In particular, 351 households had been visited in 2006. Of these, 317 households were revisited during December 2007-January 2008. The remaining 34 households could not be found at the time of the revisits, and instead an additional 41 new households were interviewed as replacement households. In order to maintain a sample for a continuous period of a year, the final TLSLS sample thus excludes the 351 households interviewed in 2006 and instead includes the 358 revisited or replaced households.

The TLSLS sample was designed to have two components: (i) a cross-sectional component of 4500 households selected with the intention of representing the current population of Timor-Leste, and (ii) a panel component of 900 households, where half of the 2001 TLSS sample of 1800 households are randomly selected and re-interviewed.   The main purpose of the panel component is to evaluate changes in the living conditions for the same set of households between the two surveys. The cross-sectional component is expected to provide independent estimates for rural and urban areas of each of five recently defined groups of districts or Regions (see Figure 3):

- Region 1: Baucau, Lautem and Viqueque;

- Region 2: Ainaro, Manufahi and Manatuto;

- Region 3: Aileu, Dili and Ermera;

- Region 4: Bobonaro, Cova Lima and Liquiçá; and

- Region 5: Oecussi.

Figure 3 : The districts of Timor-Leste

Sources and notes:

TLSLS sample design

The cross-sectional sample is selected in two stages:

- In the first stage, 300 Census Enumeration Areas (EAs) are selected as the primary sampling units (PSUs).

- In the second stage, 15 households are selected in each EA.

The design recognizes ten explicit strata – the Urban and Rural areas in each of the five regions. Table 25 shows the allocation of the 300 cross-sectional PSUs among them.

Table 25 : The distribution of enumeration areas in the TLSLS cross-section sample

	Number of enumeration areas		
	Rural	Urban	Total
Region 1 : Baucau, Lautem, Viqueque	35	25	60
Region 2 : Ainaro, Manatuto and Manufahi	35	25	60
Region 3 : Aileu, Dili and Ermera	35	37	72
Region 4 : Bobonaro, Cova Lima and Liquiçá	35	25	60
Region 5 : Oecussi	28	20	48
Timor-Leste	168	132	300

Sources and notes: TLSLS 2007.

This particular allocation resulted from the following line of reasoning:

- In spite of their different populations and total number of households, sampling theory dictates that a sample of the roughly the same size (60 EAs) should be allocated to each region in order to produce estimates of similar quality for each of them.

- A similar case could have been made for allocating a sample of the same size (30 EAs) to urban and rural areas within each region, but since the definition of urban and rural areas outside Dili was still a matter of discussion, it was decided to opt for an allocation closer to proportional: 25 EAs in Urban areas and 35 EAs to Rural areas.

- Region 5 represents a special case. It is composed of a single district of difficult access (Oecussi, see Figure 1) that ought to be the responsibility of a dedicated team. This imposed a total sample size of 50 EAs for this region, of which only 48 can be allocated to the cross-sectional component since the panel component contains two EAs in Oecussi.

- The capacity thus liberated to visit an additional 12 EAs in the rest of the country was devoted to reinforce the urban sample in Region 3, where Dili is located.

The first sampling stage used the list of 1,163 Census Enumeration Areas (EAs) generated by the 2004 Census as a sample frame. Within each stratum, the allocated number of EAs was selected with probability proportional to size (*pps*) using the number of households reported by the census as a measure of size. No efforts were made to append the smaller EAs to neighboring EAs, or to segment the larger EAs in order to make the size of the primary sampling units (PSUs) more uniform.

The second sampling stage used an exhaustive household listing operation in all selected EAs as its sample frame. Sample households in each EA were selected from the list by systematic equal probability sampling.

As a result of the relatively large sampling fraction in some of the strata, certain large EAs were selected more than once by the *pps* procedure adopted at the first sampling stage. In fact, the cross-sectional sample only consists of only 269 (rather than 300) *different* EAs. This necessitated selecting a multiple of 15 households (rather than just 15 households) in the EAs that were selected more than once.

Definition of urban and rural areas

At the time of the 2001 TLSS, 71 of Timor-Leste's 498 sucos were conventionally qualified as urban, of which 31 sucos in the Dili and Baucau districts were qualified as major urban centers. By the time of preparation of the sample design for the 2007 TLSLS, 60 of the 498 sucos defined by the 2001 Suco Survey were conventionally qualified as urban. The partition of the country into sucos was also modified in September 2004. With the amalgamation of several sucos, the original 498 sucos were now collapsed into 442. Many of the rearrangements took place in urban areas with the result that the 60 "old" sucos are now considered urban only constitute 38 "new" sucos. Table 26 gives a list of the 60 sucos that are now considered urban.

Table 26 : The list of the 60 urban sucos in 2007

District: Aileu _____ **Posto: Aileu**
  010110 ....Seloi 010113 .... Hurairaco
  (the last two now collapsed into a single suco called Seloi Manere)

District: Ainaro_____**Posto: Ainaro**
  020101 .... Ainaro 020408 .... Maubisse

District: Baucau _____**Posto: Baucau**
  030201 ....Tiri Lolo 030208 ....Caicido
  (the last two now collapsed into a single suco called Tiri Lolo)
  030202 .... Bahu

District: Bobonaro _____**Posto: Maliana**
  040603 .... Ritabou 040605 ....Holsa

District: Covalima _____ **Posto: Suai Kota**
  050502 .... Laconac 050508 .... Debos 050509 ....Vila
  (the last three now collapsed into a single suco called Debos)

District: Dili _____**Posto: Cristo Rei**
  060201 .... Culuhum
  060202 ....Centro Benemauk 060204 .... Becora 060207 .... Ailok
  (the last three now collapsed into a single suco called Becora)
  060203 ....Fatuahi 060208 .... Camea
  (the last two now collapsed into a single suco called Camea)
  060205 ....Hera 060210 .... Bidau Santana

District: Dili _____ **Posto: Dom Aleixo**
  060301 .... Loscabubu 060304 .... Suleur 060306 ....Malinamoc
  060310 ....Rai Naca Doco
  (the last four now collapsed into a single suco called Comoro)
  060303 .... Nazare 060307 .... 12 Novembro 060606 .... Naroman
  060608 .... Isolado060611 Moris Dame
  (the last five now collapsed into a single suco called Bairo Pite)
  060302 .... Beira Mar (now called Fatuhada)
  060308 .... 7 Decembro (now called Kampung Alor)

District: Dili _____ **Posto: Nein Feto**
  060501 ....Monumento (now called Bidau Lecidere)`
  060507 .... Talera Hun (now called Acadiru Hun)
  060502 .... Asucai Lorosae 060503 ....Solo 060504 .... Santa Cruz
  (the last three now collapsed into a single suco called Santa Cruz)
  060506 ....Inur Fuik 060509 .... Lahane Oriental
  (the last two now collapsed into a single suco called Gricenfor)
  060505 ....Meira 060508 .... Bemori
  (the last two now collapsed into a single suco called Bemori)

District: Dili _____ **Posto: Vera Cruz**
  060604 .... Mascarinhas
  060605 .... Rumbia (now called Caicoli)
  060602 ....Hanso Hatora 060607 .... Haksolok
  (the last two now collapsed into a single suco called Vila Verde)
  060305 .... 28 Novembro (now called Colmera)
  060309 ....20 Maio (now called Motael)
  060601 ....Alto Hospital 060603 .... Bairo Alto
  (the last two now collapsed into a single suco called Lahane Occidental)

District: Ermera _____**Posto: Ermera Kota**
  070201 .... Poetete 070206 ....Talimoro

District: Liquiça _____ **Posto: Liquiça**
  080201 ....Dato

District: Lautem _____ **Posto: Lospalos**
  090301 ....Fuiluro

District: Manufahi _____ **Posto: Same**
  100301 ....Letefoho 100302 ....Babulu

Sources and notes: Each suco is identified by a geocode with 2 digits for the district, 2 digits for the posto within the district and 2 digits for the suco within the posto.

This report is based on the analysis of data from the full cross-sectional component of TLSLS 2007. The final cross-sectional sample consists of 4,477 households. Table 27 shows the distribution of the total TLSLS sample across the rural and urban areas of the five main regions in the country. The sample s can be considered representative at national level as well as at the level of the ten domains represented by the rural and urban areas of the five regions.

Table 27 : The distribution of the TLSLS full sample by region and rural/urban areas

	Rural	Urban	Total
Region 1 : Baucau, Lautem, Viqueque	524	375	899
Region 2 : Ainaro, Manatuto and Manufahi	517	374	891
Region 3 : Aileu, Dili and Ermera	522	552	1,074
Region 4 : Bobonaro, Cova Lima and Liquiçá	520	375	895
Region 5 : Oecussi	419	299	718
Timor-Leste	2,502	1,975	4,477

Sources and notes: TLSLS 2007.

The fieldwork was designed to be more or less evenly spread throughout the country over the year. Given the challenges of the turbulent political and security situation during some periods in 2007, the fieldwork schedule had on occasion to be modified a bit to accommodate concerns of security and feasibility of fieldwork. Despite this, as seen in Table 28, the distribution of the sample by month of interview and by region and rural and urban areas indicates a sample that is well-spread through the year, which should allay any concerns of intra-year seasonality.

Table 28 : The distribution of the TLSLS sample by month of interview and by region and rural/urban areas

	Region 1: Baucau, Lautem and Viqueque	Region 2: Ainaro, Manatuto and Manufahi	Region 3: Aileu, Dili and Ermera	Region 4: Bobonaro, Cova Lima and Liquiçá	Region 5: Oecussi	Timor-Leste
January 2007	60	90	75	87	58	370
February	91	60	75	90	45	361
March	75	59	105	45	60	344
April	58	45	45	60	45	253
May	75	132	90	135	75	507
June	60	74	105	88	60	387
July	60	74	164	60	60	418
August	45	119	58	60	60	342
September	60	88	90	45	60	343
October	120	30	89	75	76	390
November	105	60	90	45	59	359
December 2007	60	45	45	60	30	240
January 2008	30	15	43	45	30	163
Total	899	891	1,074	895	718	4,477

Sources and notes: TLSLS 2007.

Selection probabilities and raising factors

For the cross-sectional sample of TLSLS, the selection probabilities and raising factors are determined in accordance with the sample design described above.

The probability of selecting Census Enumeration Area ij in stratum i is

$$p_{ij} = \frac{m_i n_{ij}}{n_i}$$

(1)

where n_{ij} is the number of households in the EA (as reported by the 2004 Census), n_i is the total number of households in the stratum (also as per the 2004 Census) and m_i is the number of EAs selected in the stratum.

The probability of selecting household ijk in EA ij of stratum i is

$$p_{ijk} = p_{ij} \frac{15}{n'_{ij}}$$

(2)

where n'_{ij} is the number of households in the EA, as per the household listing operation.

The raising factor or weight w_{ijk} for household ijk is the inverse of the selection probability p_{ijk}. If the number n'_{ij} of households found at the time of the listing operation were equal to the number n_{ij} recorded by the census in all EAs, the sample would be self-weighted in each stratum, with a constant raising factor equal to $n_i/15m_i$. In practice the numbers n_{ij} and n'_{ij} will seldom be equal but often close to each other, meaning that the samples will not be exactly self-weighted, but quite approximately so.[16]

The household weights are further adjusted such that the population totals as estimated from the full sample match the demographic projections for mid-2007 for each stratum. This corresponds to a mid-2007 total population for Timor-Leste of 1,047, 632 persons.[17]

Standard errors and confidence intervals

The statistics presented in this report are based on a sample of the population and thus have sampling errors associated with them. For reasons of space, the report does not present any standard errors or confidence intervals for the statistics. However, to illustrate the margin of error associated with the reported statistics, Table 29 shows the standard errors and 95% confidence intervals for the headcount index of poverty across rural and urban areas, by region and by district. In computing these standard errors and confidence intervals, the particular features of the TLSLS sample design have been taken into account. As discussed above, the TLSLS is not a simple random sample of the population in Timor-Leste, but follows a stratified two-stage sampling design. In particular, the sample design involved defining ten strata, selecting a number of primary sampling units (PSUs) within each stratum at the first stage, and then selecting households from each PSU at the second stage. Thus, the computation of standard errors and confidence intervals takes into account three key features of the survey design: strata, primary sampling units and sampling weights. These design features imply that the standard errors of TLSLS-based statistics will be different to those that can be expected from a simple random sample.

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[16] Strictly speaking, the above formulae are valid only when the size of the EA is such that it can be selected at most once by the pps procedure. However, the artifact of selecting 15t households in the second stage whenever an EA is selected t times in the first stage has the effect of making them applicable to compute raising factors even for the large EAs where that may not be the case. Formula (2) may be inadequate if the actual size n'_{ij} of EA_{ij} happens to be less than 15. In that (quite unlikely) case, all households in the EA will need to be visited, and pijk simplifies to p_{ij}.

[17] This population total relates to the medium-level projection in DNE (2007), Population Projections 2004-2050: Analysis of Census Results, Report 1, General Population Census of Timor-Leste 2004.

Table 29 : Poverty estimates by region and district with standard errors and confidence intervals, 2007

	Headcount index (%)	Standard error	95% confidence interval	
			Lower bound	Upper bound
National	**49.9**	**1.5**	**46.9**	**52.9**
Rural	51.5	1.8	48.0	55.1
Urban	45.2	3.0	39.4	51.1
East	26.5	2.7	21.1	31.9
Center	57.8	2.0	53.9	61.7
West	55.1	3.1	49.1	61.1
East rural	26.4	3.0	20.5	32.2
East urban	27.7	5.0	17.8	37.5
Center rural	64.2	2.6	59.0	69.4
Center urban	47.7	3.5	40.8	54.7
West rural	57.4	3.4	50.7	64.1
West urban	38.8	3.1	32.7	45.0
Districts:				
Center				
Aileu	68.6	8.2	52.5	84.6
Ainaro	79.7	3.0	73.7	85.7
Dili	43.3	4.0	35.6	51.1
Ermera	54.6	4.5	45.8	63.4
Liquica	44.9	6.6	31.9	57.9
Manufahi	85.2	2.0	81.3	89.1
Manatuto	73.7	5.4	63.0	84.3
West				
Bobonaro	54.5	5.0	44.7	64.4
Cova Lima	49.1	6.9	35.5	62.7
Oecussi	61.0	3.1	54.8	67.1
East				
Baucau	22.3	3.4	15.7	29.0
Lautem	21.3	4.2	13.0	29.5
Viqueque	43.4	6.7	30.2	56.5

Sources and notes: TLSLS 2007.

The standard errors and confidence intervals in Table 29 have the standard interpretation. While the statistics on poverty headcount indices are unbiased, the standard errors give a measure of the dispersion for the statistic in question. The lower and upper bound of the 95% confidence intervals give the range within which the statistic in question can be expected to lie with a 95% probability. A particular feature of the estimates in Table 29 is worth highlighting, namely, the standard errors and confidence intervals become larger for statistics at more disaggregated levels. Thus, standard errors are lowest and the confidence intervals are narrowest for the national headcount index indicating that national-level indicators (which are based on the entire sample) are the most precisely estimated. However, as we move from national to rural-urban to regional-level poverty indices the standard errors and confidence intervals become larger. Thus, for instance, while the estimated incidence of poverty in rural Center at 64% is appreciably higher then that in rural West at 57%, the 95% confidence intervals for the headcount indices in these two regions overlap, and difference in the incidence of poverty in these two regions is not statistically significant. The confidence intervals are largest at the district level, which carries the important implication that district-level statistics presented in this report should be interpreted cautiously in view of their relatively lower degree of statistical precision.

Annex 2: Poverty measurement methodology

There are three key elements to poverty measurement: (i) first, a measurable and acceptable welfare indicator that be used to rank the population, (ii) second, an appropriate poverty line against which the chosen welfare indicator can be compared in order to classify individuals as poor or non-poor, and (III) finally, a set of measures that can combine the individual welfare indicator and the poverty line into aggregated poverty indices. This Annex gives details of how these three elements were implemented for the poverty estimates presented in this report.

The welfare indicator

Poverty involves multiple dimensions of deprivation, such inability to meet the basic needs of food, clothing and shelter, low human capital, limited access to infrastructure, malnutrition, various forms of social exclusion. Each of them deserves separate attention as they summarize different components of welfare, and indeed may help policy makers to focus attention on the various facets of poverty. This report focuses on poverty in terms of a broad range of goods and services that people actually consume. People's consumption of course does not cover all aspects of their welfare, but it does capture a central component of any assessment of living standards. Consumption is preferred over income because it is likely to be a more useful and accurate measure of living standards. Relative to income, consumption is also more stable over time, less affected by seasonal patterns, and is generally an easier concept to grasp for the respondents, particularly if the interviewees earn their income mainly from self-employment in agricultural or various informal non-farm activities.

Creating an aggregate of consumption for the household is guided by theoretical and practical considerations. First, the measure of consumption ought to be as comprehensive as possible given the available information. Omitting some components assumes that they do not contribute to people's welfare or that they do no affect the rankings of individuals. Second, market and non-market components of consumption need to be included which means that monetary expenditure is not consumption, and the measure of consumption should include not only purchases, but also the value of consumption of self-produced items as well as any items received as gifts or as transfers.

Guided by these considerations, measures of aggregate household consumption were constructed from the TLSLS data. The following describes how the three main components of consumption – food, non-food and housing – were constructed.

The food component is based on information that was obtained using a recall period for the last seven days. The survey collects information on 129 food items organized in 14 broad categories: cereals, tubers, fish, meat, eggs and milk products, vegetables, legumes and nuts, fruit, oil and fat, beverages and drinks, ingredients, miscellaneous, alcoholic drinks, tobacco and betel. The monetary value reported by the household refers actual consumption of these items and includes all possible sources, including purchases, self-production and gifts or transfers. Food consumption is constructed by adding up the consumption of all food items and then normalizing it to a monthly basis.

The non-food component introduces a couple of practical issues: the choice of items to include and the selection of the reference period. Regarding the first issue, survey gathers information on 73 non-food items organized in categories such as clothing and footwear, education, health, taxes, festivities, etc. (including 13 items of expenditure included in the housing section related to various utilities and house maintenance). The general principle followed was to (a) to exclude items that do not directly contribute to household consumption, (b) to exclude items that are lumpy and highly infrequent in nature. Following this principle, 21 items related to taxes, festivities and ceremonies, jewellery, furniture, household equipment and other durables, donations, gambling/cash losses and bank deposits, were excluded. Altogether, 52 non-food items were included in the measure of household consumption.

As for the reference period, the TLSLS captures non-food consumption using two reference periods: the last month and the last 12 months. The chosen reference period is the last month. However, households do not buy many non-food items every month. In order to better capture the overall non-food consumption of the population, whenever households do not purchase a non-food item in the last

month but report its consumption in the last 12 months, the latter is converted to a monthly basis and included as part of the non-food consumption.

The last component of consumption is housing. The objective is to try to measure the value of the flow of services received by the household from living in their dwelling. When a household rents its dwelling and rental markets are well-established, that value would be the actual rent paid by the household. However, in Timor-Leste, only a handful of households rent their dwellings. Thus, paid rent cannot be used to determine housing values for the vast majority of non-renting households. However, the survey asks households for estimates of how much their dwelling could be rented for and these "imputed" rents can be included in the consumption aggregate. But self-reported imputed rents may not always be credible. Hence, in order to minimize potential errors, a hedonic housing rental regression was estimated and the predicted imputed rent from this regression was included as part of consumption for the non-renting households. For those renting their dwellings, the actual rent paid was included in their consumption aggregate.

The sum of food, non-food, and housing rentals (actual or imputed) gives the aggregate nominal consumption of the household. This nominal consumption was further adjusted by a price index to reflect temporal differences in the cost of living.[18] Temporal differences arise because households were interviewed throughout the year, and on account of inflation over the year, nominal consumption for, say, a household interviewed in March 2007 can not be compared with another interviewed in December 2007. Thus, a monthly Laspeyres price index for urban and rural areas was constructed based on unit-values for food and fuel items consumed by urban and rural households. The weights are the average shares of individual items in the total annual food and fuel consumption for rural and urban households respectively. This temporal price index is limited to food and fuel (kerosene and firewood) because the quantities of other non-food items are not well-defined and thus meaningful unit-values for these items can not be constructed.[19] The implicit assumption of the procedure is that prices of other non-food items changed proportionally with the prices of food and fuel. Table 30 shows the temporal price index for urban and rural areas for each month of the survey period. The weights for the rural and urban indices were based on the average per capita consumption of individual food and fuel items for rural and urban households respectively.

Table 30 : The temporal price index for rural and urban areas by month of survey period		
	Rural	**Urban**
January 2007	88.1	94.9
February	109.3	106.1
March	110.1	110.9
April	104.3	104.6
May	100.7	96.9
June	93.8	96.4
July	96.8	103.9
August	94.3	99.3
September	93.2	97.1
October	89.9	100.4
November	83.6	103.0
December 2007	**100.0**	**100.0**
January 2008	92.6	102.1
Sources and notes: TLSLS 2007.		

The final step in constructing the welfare indicator involves going from a measure of standard of living defined at the household level to one at the individual level. Following common practice, this is done by dividing the household consumption aggregate by the number of household members.

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[18] Spatial cost of living differences are also taken into account, but this is done by way of estimating the poverty lines for the rural and urban areas of different regions, as discussed later.

[19] Only items that were consumed in all months and with at least 10 observations per month were included.

The poverty line

The poverty line is determined by using a cost of basic needs approach. This method calculates the cost of obtaining a consumption bundle deemed to be adequate for meeting basic food and non-food needs. If a person cannot afford the cost of this bundle, she is considered poor; more specifically, members of a household are considered poor if per capita consumption of the household is below the poverty line. The poverty line is "absolute" because it fixes a given welfare level, or standard of living, over the domain of analysis.

Poverty lines are estimated separately for six domains, which relate to the rural and urban sectors of three regions, namely, the East, Center and West. The East includes the districts of Baucau, Lautem and Viqueque; the Center includes the districts of Aileu, Ainaro, Dili, Ermera, Liquica, Manufahi, and Manututo; and the West includes the districts of Bobonaro, Cova Lima and Oecussi.

The poverty line has two main components: food and non-food. The food poverty line is anchored to the recommended nutritional norm of 2100 calories per person. In particular, for each of the six domains, representative food bundles for the poor are constructed that correspond to the average food consumption pattern of the poor in that domain. More specifically, a national reference group representing the poor is identified, and the food bundle for a particular domain is then determined as the average (per capita) quantities of food items consumed by households belonging to the reference group of the poor who live in that particular domain . However, these domain-specific average food bundles of the poor need not yield the recommended 2100 calories per person per day. Hence, the bundles are scaled up so that they do. These scaled-up bundles are then valued with median prices of food items paid by the poor in each domain to obtain the food poverty line for that domain. The final food bundles for each of the six domains and their values are shown in Table 31 to Table 36.

The non-food poverty line is estimated in terms of what the poor actually spend on non-food items. Two sets of non-food poverty lines are estimated. The lower non-food poverty line for a domain corresponds to the average per capita non-food consumption of the population whose per capita *total* consumption is within plus/minus 5% of the food poverty line for that domain. The rationale for this is that these are households who would have to devote all their expenditure to food if they are to afford the food poverty line. Yet, if such households spend some amount on non-food items, that must be very basic non-food spending.

The upper non-food poverty line for a domain, on the other hand, corresponds to the average per capita non-food consumption of the population whose per capita *food* consumption is within plus/minus 5% of the food poverty line for that domain. Finally, the overall upper (lower) poverty line for a domain is the sum of the food poverty line and the upper (lower) non-food poverty line for that domain.

Table 31 : Food bundle per person per day, East Rural

	Unit	Calories per unit (kcals)	Quantity consumed	Daily calories provided	Price per unit (US$)	Daily value (US$)
Total per person per day				2100.0		0.3952
Cereals						
Local rice	kg	3614	0.1098	396.9	0.5000	0.0549
Imported rice	kg	3614	0.1367	494.1	0.5000	0.0684
Corn	kg	3200	0.1484	475.0	0.3200	0.0475
Corn Flour	kg	3200	0.0020	6.5	0.2782	0.0006
Palm flour	kg	3200	0.0061	19.6	0.2271	0.0014
Tubers						
Cassava	kg	1309	0.0560	73.3	0.3197	0.0179
Sweet potatoes	kg	1252	0.0204	25.5	0.3625	0.0074
Sago (ambon sago)	kg	3380	0.0063	21.1	0.4290	0.0027
Taro	kg	1120	0.0171	19.2	0.3846	0.0066
Potatoes	kg	521	0.0007	0.4	2.1332	0.0015
Yams	kg	3380	0.0026	8.6	0.4290	0.0011
Fish						
V. small sea fish	kg	740	0.0034	2.5	0.7419	0.0025
Other fresih fish	kg	824	0.0021	1.7	1.0326	0.0022
Salted fish	kg	824	0.0002	0.2	1.0666	0.0002
Canned fish	kg	3380	0.0007	2.2	2.0644	0.0014
Squid	kg	750	0.0002	0.2	1.0326	0.0002
Fresh shrimp	kg	619	0.0005	0.3	1.1987	0.0006
Meat						
Beef	kg	2070	0.0029	5.9	2.2708	0.0065
Buffalo meat	kg	840	0.0014	1.2	2.7820	0.0040
Goat	kg	1540	0.0012	1.8	1.0666	0.0012
Pork	kg	4165	0.0063	26.4	2.0000	0.0127
Chicken	kg	3020	0.0044	13.3	1.9180	0.0085
Canned meat	kg	2410	0.0003	0.8	2.3419	0.0008
Meat scraps and bones	kg	1280	0.0006	0.8	1.1962	0.0008
Eggs and dairy products						
Chicken eggs	each	66	0.0288	1.9	0.1061	0.0031
Canned sweet milk	390 grs	1334	0.0011	1.5	0.7228	0.0008
Vegetables						
Spinach	kg	114	0.0138	1.6	0.1600	0.0022
Kangkung	kg	168	0.0245	4.1	0.1807	0.0044
Cabbage	kg	180	0.0005	0.1	0.8333	0.0004
Light mustard green	kg	66	0.0133	0.9	0.2121	0.0028
Dark mustard green	kg	191	0.0088	1.7	0.2121	0.0019
String bean	kg	306	0.0002	0.1	0.5163	0.0001
Tomato	kg	190	0.0029	0.6	0.6400	0.0019
Carrot	kg	288	0.0001	0.0	0.6250	0.0001
Cucumber	kg	69	0.0013	0.1	0.0993	0.0001
Cassava leaves	kg	635	0.0474	30.1	0.1794	0.0085
Eggplant	kg	373	0.0059	2.2	0.2795	0.0016
Squash	kg	192	0.0117	2.3	0.2065	0.0024
Papaya, young	kg	198	0.0217	4.3	0.1794	0.0039
Papaya flowers	kg	198	0.0152	3.0	0.2990	0.0046
Lettuce	kg	130	0.0003	0.0	0.0993	0.0000
Pumpkin	kg	260	0.0112	2.9	0.1867	0.0021
Pumpkin leaves	kg	190	0.0151	2.9	0.1591	0.0024
A Timor veg	kg	635	0.0027	1.7	0.2782	0.0008
Tips of banana plants	kg	644	0.0133	8.5	0.1987	0.0026
Green bitter melon	kg	320	0.0027	0.9	0.4795	0.0013
Onion (big)	kg	351	0.0054	1.9	0.9933	0.0054
Garlic	kg	836	0.0031	2.6	0.9538	0.0029
Red pepper/chili	kg	264	0.0016	0.4	0.9933	0.0016

Table 31 : Food bundle per person per day, East Rural

	Unit	Calories per unit (kcals)	Quantity consumed	Daily calories provided	Price per unit (US$)	Daily value (US$)
Legumes, nuts						
Soya bean	kg	3810	0.0022	8.3	0.5333	0.0012
Mung bean	kg	3373	0.0031	10.5	0.6000	0.0019
Peanuts	kg	4520	0.0050	22.8	0.8533	0.0043
Kidney beans	kg	3330	0.0016	5.4	0.9083	0.0015
Tofu & Tempe	kg	1115	0.0003	0.3	0.5398	0.0001
Fruits						
Orange/tangerines	kg	311	0.0020	0.6	0.5163	0.0010
Mango	kg	365	0.0069	2.5	0.1829	0.0013
Apples	kg	485	0.0002	0.1	2.0652	0.0005
Pineapple	kg	204	0.0004	0.1	1.0553	0.0004
Banana	kg	920	0.0199	18.3	0.2582	0.0051
Papaya	kg	345	0.0079	2.7	0.2287	0.0018
Watermelon	kg	129	0.0007	0.1	0.0959	0.0001
Jackfruit	kg	297	0.0022	0.7	0.1372	0.0003
Coconuts	kg	3363	0.0199	66.9	0.1113	0.0022
Oil and fats						
Coconut oil	lt	6960	0.0120	83.3	0.9612	0.0115
Other cooking oil	lt	6960	0.0046	31.7	1.2805	0.0058
Dry coconut	kg	6960	0.0059	41.4	0.1061	0.0006
Beverages, drinks						
Sugar	kg	3640	0.0191	69.7	0.6250	0.0120
Tea	kg	1320	0.0005	0.7	4.6875	0.0024
Coffee	kg	3520	0.0064	22.6	1.6089	0.0104
Soda drinks (Sprite, Coca Cola)	lt	403	0.0001	0.0	2.1795	0.0002
Ingredients						
Salt	kg	0	0.0100	0.0	0.4266	0.0043
Honey	lt	3040	0.0002	0.5	2.4832	0.0004
Candle nut	kg	6360	0.0000	0.1	1.0326	0.0000
Paprika	kg	2890	0.0021	6.1	1.0326	0.0022
Soy sauce sweet/sour	140 ml	52	0.0000	0.0	3.4699	0.0001
MSG	kg	0	0.0007	0.0	5.5556	0.0037
Miscellaneous foods						
Instant noodles	kg	4450	0.0040	17.7	1.4814	0.0059
Sweet bread	each	162	0.0450	7.3	0.0482	0.0022
Biscuits	kg	4263	0.0013	5.4	1.7992	0.0023
Sweets/cakes	each	37	0.0047	0.2	0.0516	0.0002

Sources and notes: TLSLS 2007.

Table 32 : Food bundle per person per day, East Urban

	Unit	Calories per unit (kcals)	Quantity consumed	Daily calories provided	Price per unit (US$)	Daily value (US$)
Total per person per day				2100.0		0.4351
Cereals						
Local rice	kg	3614	0.0357	129.2	0.4284	0.0153
Imported rice	kg	3614	0.2507	905.8	0.4439	0.1113
Corn	kg	3200	0.1216	389.3	0.2912	0.0354
Wheat flour	kg	3330	0.0005	1.8	0.4853	0.0003
Corn Flour	kg	3200	0.0004	1.4	0.2987	0.0001
Palm flour	kg	3200	0.0021	6.6	0.4853	0.0010
Tubers						
Cassava	kg	1309	0.0453	59.3	0.3467	0.0157
Sweet potatoes	kg	1252	0.0223	28.0	0.2987	0.0067
Sago (ambon sago)	kg	3380	0.0063	21.4	0.3089	0.0020
Taro	kg	1120	0.0189	21.2	0.3319	0.0063
Potatoes	kg	521	0.0007	0.4	0.7765	0.0006
Fish						
Tuna	kg	904	0.0000	0.0	2.8033	0.0001
V. small sea fish	kg	740	0.0070	5.2	1.0323	0.0072
Other fresih fish	kg	824	0.0040	3.3	0.7500	0.0030
Salted fish	kg	824	0.0004	0.3	1.9412	0.0007
Canned fish	kg	3380	0.0010	3.3	1.4574	0.0014
Meat						
Beef	kg	2070	0.0066	13.6	2.9119	0.0191
Buffalo meat	kg	840	0.0018	1.5	3.0970	0.0057
Goat	kg	1540	0.0019	2.9	1.9916	0.0037
Pork	kg	4165	0.0061	25.2	2.0592	0.0125
Chicken	kg	3020	0.0071	21.5	2.5740	0.0183
Canned meat	kg	2410	0.0002	0.6	1.5558	0.0004
Meat scraps and bones	kg	1280	0.0007	1.0	1.1267	0.0008
Eggs and dairy products						
Chicken eggs	each	66	0.0194	1.3	0.1037	0.0020
Canned sweet milk	390 grs	1334	0.0044	5.9	1.2444	0.0055
Powdered milk	kg	5090	0.0003	1.6	5.6904	0.0018
Baby milk	kg	4180	0.0003	1.2	7.1140	0.0020
Vegetables						
Spinach	kg	114	0.0154	1.8	0.1500	0.0023
Kangkung	kg	168	0.0252	4.2	0.2574	0.0065
Cabbage	kg	180	0.0026	0.5	0.3333	0.0009
Light mustard green	kg	66	0.0229	1.5	0.3983	0.0091
Dark mustard green	kg	191	0.0123	2.4	0.2145	0.0026
String bean	kg	306	0.0003	0.1	0.8780	0.0003
Tomato	kg	190	0.0040	0.8	0.6471	0.0026
Carrot	kg	288	0.0004	0.1	0.6066	0.0003
Cucumber	kg	69	0.0015	0.1	0.1037	0.0002
Cassava leaves	kg	635	0.0378	24.0	0.2257	0.0085
Eggplant	kg	373	0.0046	1.7	0.4853	0.0022
Squash	kg	192	0.0063	1.2	0.1494	0.0009
Papaya, young	kg	198	0.0240	4.7	0.2406	0.0058
Papaya flowers	kg	198	0.0140	2.8	0.4853	0.0068
Lettuce	kg	130	0.0001	0.0	0.4853	0.0001
Pumpkin	kg	260	0.0062	1.6	0.1037	0.0006
Pumpkin leaves	kg	190	0.0097	1.8	0.1195	0.0012
A Timor veg	kg	635	0.0010	0.6	0.4979	0.0005
Tips of banana plants	kg	644	0.0152	9.8	0.2022	0.0031
Green bitter melon	kg	320	0.0016	0.5	0.4812	0.0008
Onion (big)	kg	351	0.0060	2.1	1.0000	0.0060

Table 32 : Food bundle per person per day, East Urban

	Unit	Calories per unit (kcals)	Quantity consumed	Daily calories provided	Price per unit (US$)	Daily value (US$)
Garlic	kg	836	0.0036	3.0	1.0000	0.0036
Red pepper/chili	kg	264	0.0015	0.4	0.9958	0.0015
Legumes, nuts						
Soya bean	kg	3810	0.0021	7.8	0.5162	0.0011
Mung bean	kg	3373	0.0015	5.0	0.6471	0.0010
Peanuts	kg	4520	0.0046	20.9	0.8259	0.0038
Kidney beans	kg	3330	0.0009	3.0	0.9958	0.0009
Fruits						
Orange/tangerines	kg	311	0.0005	0.1	0.4142	0.0002
Mango	kg	365	0.0021	0.8	0.1317	0.0003
Pineapple	kg	204	0.0006	0.1	0.9623	0.0006
Banana	kg	920	0.0189	17.4	0.3585	0.0068
Papaya	kg	345	0.0097	3.4	0.2406	0.0023
Watermelon	kg	129	0.0011	0.1	0.2391	0.0003
Jackfruit	kg	297	0.0049	1.5	0.4268	0.0021
Coconuts	kg	3363	0.0108	36.2	0.1000	0.0011
Oil and fats						
Coconut oil	lt	6960	0.0111	77.2	0.9958	0.0111
Other cooking oil	lt	6960	0.0067	46.3	1.2046	0.0080
Dry coconut	kg	6960	0.0036	25.2	0.1054	0.0004
Butter and margarine	kg	7170	0.0001	0.4	1.0536	0.0001
Beverages, drinks						
Sugar	kg	3640	0.0191	69.7	0.6000	0.0115
Tea	kg	1320	0.0003	0.4	4.8263	0.0016
Coffee	kg	3520	0.0067	23.7	1.6177	0.0109
Soda drinks (Sprite, Coca Cola)	lt	403	0.0001	0.1	2.0589	0.0003
Ingredients						
Salt	kg	0	0.0107	0.0	0.4000	0.0043
Honey	lt	3040	0.0004	1.1	2.0683	0.0008
Candle nut	kg	6360	0.0005	3.2	0.3688	0.0002
Paprika	kg	2890	0.0016	4.8	0.9958	0.0016
MSG	kg	0	0.0014	0.0	5.3923	0.0073
Miscellaneous foods						
Instant noodles	kg	4450	0.0043	19.3	1.4300	0.0062
White bread	small piece	53	0.0023	0.1	0.0478	0.0001
Sweet bread	each	162	0.0433	7.0	0.0500	0.0022
Biscuits	kg	4263	0.0016	6.9	1.6667	0.0027
Alcoholic drinks						
Beer	lt	238	0.0001	0.0	4.7060	0.0006

Sources and notes: TLSLS 2007.

Table 33 : Food bundle per person per day, Center Rural

	Unit	Calories per unit (kcals)	Quantity consumed	Daily calories provided	Price per unit (US$)	Daily value (US$)
Total per person per day				2100.0		0.5856
Cereals						
Local rice	kg	3614	0.0381	137.8	0.5674	0.0216
Imported rice	kg	3614	0.1343	485.2	0.6400	0.0859
Corn	kg	3200	0.1628	521.0	0.5163	0.0841
Wheat flour	kg	3330	0.0002	0.6	0.5564	0.0001
Corn Flour	kg	3200	0.0097	31.0	0.3442	0.0033
Palm flour	kg	3200	0.0078	25.1	0.4542	0.0036
Tubers						
Cassava	kg	1309	0.0918	120.2	0.3333	0.0306
Sweet potatoes	kg	1252	0.0351	43.9	0.3879	0.0136
Sago (ambon sago)	kg	3380	0.0027	9.0	0.4573	0.0012
Taro	kg	1120	0.0311	34.8	0.4573	0.0142
Potatoes	kg	521	0.0011	0.6	0.4573	0.0005
Yams	kg	3380	0.0061	20.7	0.4573	0.0028
Fish						
Tuna	kg	904	0.0000	0.0	1.8292	0.0001
V. small sea fish	kg	740	0.0035	2.6	0.9590	0.0034
Other fresih fish	kg	824	0.0033	2.8	1.0726	0.0036
Salted fish	kg	824	0.0013	1.0	1.0000	0.0013
Canned fish	kg	3380	0.0009	3.0	1.6616	0.0015
Squid	kg	750	0.0003	0.2	1.2500	0.0004
Dried shrimp	kg	619	0.0000	0.0	4.0761	0.0000
Meat						
Beef	kg	2070	0.0049	10.1	2.8370	0.0138
Buffalo meat	kg	840	0.0007	0.6	2.5816	0.0018
Goat	kg	1540	0.0013	2.0	2.2376	0.0029
Pork	kg	4165	0.0053	22.0	2.6665	0.0141
Chicken	kg	3020	0.0024	7.2	2.0241	0.0048
Canned meat	kg	2410	0.0001	0.3	1.6747	0.0002
Meat scraps and bones	kg	1280	0.0001	0.2	1.0666	0.0001
Eggs and dairy products						
Chicken eggs	each	66	0.0302	2.0	0.1067	0.0032
Fresh milk	lt	630	0.0001	0.0	4.0223	0.0002
Canned sweet milk	390 grs	1334	0.0014	1.9	0.7425	0.0011
Baby milk	kg	4180	0.0000	0.2	7.4187	0.0003
Vegetables						
Spinach	kg	114	0.0123	1.4	0.3049	0.0037
Kangkung	kg	168	0.0114	1.9	0.3478	0.0040
Cabbage	kg	180	0.0074	1.3	0.4573	0.0034
Light mustard green	kg	66	0.0229	1.5	0.4290	0.0098
Dark mustard green	kg	191	0.0241	4.6	0.4266	0.0103
String bean	kg	306	0.0069	2.1	0.5000	0.0035
Tomato	kg	190	0.0021	0.4	0.5363	0.0011
Carrot	kg	288	0.0010	0.3	0.5163	0.0005
Cucumber	kg	69	0.0089	0.6	0.2667	0.0024
Cassava leaves	kg	635	0.0762	48.4	0.3311	0.0252
Eggplant	kg	373	0.0062	2.3	0.4300	0.0026
Squash	kg	192	0.0189	3.6	0.3000	0.0057
Papaya, young	kg	198	0.0272	5.4	0.3535	0.0096
Papaya flowers	kg	198	0.0155	3.1	0.5163	0.0080
Lettuce	kg	130	0.0023	0.3	0.5488	0.0012
Pumpkin	kg	260	0.0207	5.4	0.2744	0.0057
Pumpkin leaves	kg	190	0.0287	5.5	0.3973	0.0114
A Timor veg	kg	635	0.0373	23.7	0.3338	0.0125

Table 33 : Food bundle per person per day, Center Rural

	Unit	Calories per unit (kcals)	Quantity consumed	Daily calories provided	Price per unit (US$)	Daily value (US$)
Tips of banana plants	kg	644	0.0168	10.8	0.2946	0.0050
Green bitter melon	kg	320	0.0038	1.2	0.4573	0.0018
Onion (big)	kg	351	0.0078	2.7	0.9933	0.0077
Garlic	kg	836	0.0047	4.0	1.0000	0.0047
Red pepper/chili	kg	264	0.0014	0.4	0.9590	0.0014
Legumes, nuts						
Soya bean	kg	3810	0.0078	29.7	0.5303	0.0041
Mung bean	kg	3373	0.0020	6.8	0.5333	0.0011
Peanuts	kg	4520	0.0026	11.8	0.5564	0.0015
Kidney beans	kg	3330	0.0182	60.5	0.7197	0.0131
Tofu & Tempe	kg	1115	0.0004	0.4	0.4946	0.0002
Fruits						
Orange/tangerines	kg	311	0.0088	2.7	0.4966	0.0044
Mango	kg	365	0.0041	1.5	0.2397	0.0010
Avocado	kg	519	0.0016	0.8	0.4573	0.0007
Pineapple	kg	204	0.0024	0.5	0.4795	0.0012
Banana	kg	920	0.0134	12.3	0.3442	0.0046
Papaya	kg	345	0.0050	1.7	0.2782	0.0014
Watermelon	kg	129	0.0003	0.0	0.4539	0.0001
Soursop	kg	660	0.0009	0.6	0.5163	0.0005
Jackfruit	kg	297	0.0011	0.3	0.3028	0.0003
Coconuts	kg	3363	0.0054	18.3	0.2145	0.0012
Oil and fats						
Coconut oil	lt	6960	0.0015	10.4	0.9146	0.0014
Pork oil	lt	6960	0.0008	5.3	1.0726	0.0008
Other cooking oil	lt	6960	0.0174	121.3	1.4157	0.0247
Dry coconut	kg	6960	0.0004	2.5	0.2287	0.0001
Beverages, drinks						
Sugar	kg	3640	0.0266	96.9	0.7092	0.0189
Palm sugar	kg	3770	0.0002	0.6	1.1987	0.0002
Tea	kg	1320	0.0003	0.3	4.8404	0.0013
Coffee	kg	3520	0.0148	52.3	1.6522	0.0245
Cocoa/Chocolate powder	kg	2980	0.0001	0.3	2.1452	0.0002
Soda drinks (Sprite, Coca Cola)	lt	403	0.0000	0.0	1.2908	0.0000
Ingredients						
Salt	kg	0	0.0080	0.0	0.4290	0.0034
Honey	lt	3040	0.0003	0.8	0.6953	0.0002
Candle nut	kg	6360	0.0000	0.1	1.0726	0.0000
Paprika	kg	2890	0.0017	4.8	0.9590	0.0016
Soy sauce sweet/sour	140 ml	52	0.0002	0.0	0.5737	0.0001
MSG	kg	0	0.0031	0.0	1.2263	0.0038
Miscellaneous foods						
Instant noodles	kg small	4450	0.0068	30.3	1.4973	0.0102
White bread	piece	53	0.0061	0.3	0.0536	0.0003
Sweet bread	each	162	0.0420	6.8	0.0516	0.0022
Biscuits	kg	4263	0.0004	1.9	1.5983	0.0007
Alcoholic drinks						
Wine	lt	276	0.0002	0.1	1.1433	0.0002

Sources and notes: TLSLS 2007.

Table 34 : Food bundle per person per day, Center Urban

	Unit	Calories per unit (kcals)	Quantity consumed	Daily calories provided	Price per unit (US$)	Daily value (US$)
Total per person per day				2100.0		0.6538
Cereals						
Local rice	kg	3614	0.0091	32.8	0.5268	0.0048
Imported rice	kg	3614	0.2515	908.8	0.5035	0.1266
Corn	kg	3200	0.0743	237.8	0.5047	0.0375
Wheat flour	kg	3330	0.0006	2.0	0.5000	0.0003
Corn Flour	kg	3200	0.0002	0.7	0.7024	0.0002
Palm flour	kg	3200	0.0012	3.8	0.3605	0.0004
Tubers						
Cassava	kg	1309	0.0560	73.3	0.4979	0.0279
Sweet potatoes	kg	1252	0.0199	24.9	0.5035	0.0100
Sago (ambon sago)	kg	3380	0.0014	4.8	0.5268	0.0007
Taro	kg	1120	0.0091	10.2	0.5000	0.0046
Potatoes	kg	521	0.0020	1.1	1.0071	0.0020
Yams	kg	3380	0.0041	13.8	0.5162	0.0021
Fish						
Tuna	kg	904	0.0002	0.2	0.5268	0.0001
V. small sea fish	kg	740	0.0084	6.2	0.9958	0.0084
Other fresih fish	kg	824	0.0090	7.4	1.9664	0.0177
Salted fish	kg	824	0.0033	2.7	1.0536	0.0035
Canned fish	kg	3380	0.0023	7.8	1.4435	0.0033
Squid	kg	750	0.0001	0.1	1.5773	0.0002
Fresh shrimp	kg	619	0.0002	0.1	0.4507	0.0001
Meat						
Beef	kg	2070	0.0071	14.8	3.0212	0.0216
Buffalo meat	kg	840	0.0022	1.8	3.1609	0.0070
Goat	kg	1540	0.0008	1.2	2.1073	0.0016
Pork	kg	4165	0.0045	18.7	3.0970	0.0139
Chicken	kg	3020	0.0074	22.3	2.3414	0.0173
Canned meat	kg	2410	0.0001	0.4	1.9126	0.0003
Meat scraps and bones	kg	1280	0.0017	2.2	1.5444	0.0027
Eggs and dairy products						
Chicken eggs	each	66	0.0382	2.5	0.1925	0.0074
Other eggs	each	66	0.0023	0.2	0.2000	0.0005
Fresh milk	lt	630	0.0000	0.0	1.9231	0.0001
Canned sweet milk	390 grs	1334	0.0056	7.5	1.3578	0.0076
Powdered milk	kg	5090	0.0004	2.0	6.4350	0.0026
Baby milk	kg	4180	0.0001	0.6	7.2173	0.0011
Vegetables						
Spinach	kg	114	0.0110	1.3	0.6194	0.0068
Kangkung	kg	168	0.0189	3.2	0.6882	0.0130
Cabbage	kg	180	0.0121	2.2	0.5268	0.0064
Light mustard green	kg	66	0.0190	1.3	0.5268	0.0100
Dark mustard green	kg	191	0.0140	2.7	0.5268	0.0074
String bean	kg	306	0.0044	1.4	0.9013	0.0040
Tomato	kg	190	0.0043	0.8	0.9623	0.0042
Carrot	kg	288	0.0009	0.3	0.5186	0.0005
Cucumber	kg	69	0.0024	0.2	0.4782	0.0012
Cassava leaves	kg	635	0.0407	25.8	0.5000	0.0204
Eggplant	kg	373	0.0088	3.3	0.5162	0.0046
Squash	kg	192	0.0042	0.8	0.4507	0.0019
Papaya, young	kg	198	0.0161	3.2	0.4979	0.0080
Papaya flowers	kg	198	0.0115	2.3	0.9563	0.0110
Lettuce	kg	130	0.0010	0.1	0.8429	0.0008
Pumpkin	kg	260	0.0053	1.4	0.4782	0.0025

Table 34 : Food bundle per person per day, Center Urban

	Unit	Calories per unit (kcals)	Quantity consumed	Daily calories provided	Price per unit (US$)	Daily value (US$)
Pumpkin leaves	kg	190	0.0097	1.8	0.5000	0.0048
A Timor veg	kg	635	0.0136	8.6	0.4812	0.0065
Tips of banana plants	kg	644	0.0127	8.2	0.4742	0.0060
Green bitter melon	kg	320	0.0025	0.8	0.9706	0.0025
Onion (big)	kg	351	0.0089	3.1	0.9958	0.0089
Garlic	kg	836	0.0070	5.9	1.0071	0.0071
Red pepper/chili	kg	264	0.0033	0.9	1.0323	0.0034
Legumes, nuts						
Soya bean	kg	3810	0.0019	7.0	0.5313	0.0010
Mung bean	kg	3373	0.0094	31.7	0.9426	0.0089
Peanuts	kg	4520	0.0027	12.0	1.4709	0.0039
Kidney beans	kg	3330	0.0164	54.7	0.9958	0.0164
Tofu & Tempe	kg	1115	0.0027	3.1	1.0000	0.0027
Fruits						
Orange/tangerines	kg	311	0.0043	1.3	0.5162	0.0022
Mango	kg	365	0.0082	3.0	0.4507	0.0037
Apples	kg	485	0.0004	0.2	2.0000	0.0008
Avocado	kg	519	0.0040	2.1	0.4853	0.0019
Pineapple	kg	204	0.0031	0.6	0.5268	0.0016
Banana	kg	920	0.0158	14.6	0.5035	0.0080
Papaya	kg	345	0.0053	1.8	0.7217	0.0039
Soursop	kg	660	0.0007	0.4	0.6915	0.0005
Jackfruit	kg	297	0.0029	0.9	0.6760	0.0019
Coconuts	kg	3363	0.0067	22.6	0.5268	0.0035
Oil and fats						
Coconut oil	lt	6960	0.0006	4.5	1.0823	0.0007
Pork oil	lt	6960	0.0012	8.7	0.7376	0.0009
Other cooking oil	lt	6960	0.0284	197.9	1.0176	0.0289
Dry coconut	kg	6960	0.0001	0.5	0.2581	0.0000
Butter and margarine	kg	7170	0.0002	1.2	1.1896	0.0002
Beverages, drinks						
Sugar	kg	3640	0.0247	90.0	0.6101	0.0151
Palm sugar	kg	3770	0.0005	1.8	0.5268	0.0003
Tea	kg	1320	0.0010	1.3	4.5156	0.0045
Coffee	kg	3520	0.0127	44.7	1.7287	0.0220
Cocoa/Chocolate powder	kg	2980	0.0002	0.5	2.6341	0.0005
Soda drinks (Sprite, Coca Cola)	lt	403	0.0001	0.0	1.0000	0.0001
Ingredients						
Salt	kg	0	0.0060	0.0	0.4118	0.0025
Honey	lt	3040	0.0001	0.3	0.9013	0.0001
Candle nut	kg	6360	0.0000	0.3	0.3512	0.0000
Paprika	kg	2890	0.0010	2.9	0.9958	0.0010
Soy sauce sweet/sour	140 ml	52	0.0010	0.1	1.1669	0.0011
MSG	kg	0	0.0061	0.0	1.0536	0.0064
Miscellaneous foods						
Instant noodles	kg	4450	0.0108	48.0	1.5022	0.0162
Macronie	kg	3500	0.0003	1.1	1.0071	0.0003
White bread	small piece	53	0.0259	1.4	0.0498	0.0013
Sweet bread	each	162	0.2628	42.6	0.0504	0.0132
Biscuits	kg	4263	0.0009	3.9	1.9809	0.0018
Sweets/cakes	each	37	0.0001	0.0	0.9706	0.0001

Sources and notes: TLSLS 2007.

Table 35 : Food bundle per person per day, West Rural

	Unit	Calories per unit (kcals)	Quantity consumed	Daily calories provided	Price per unit (US$)	Daily value (US$)
Total per person per day				2100.0		0.5097
Cereals						
Local rice	kg	3614	0.0789	285.0	0.5333	0.0421
Imported rice	kg	3614	0.1423	514.0	0.5564	0.0791
Corn	kg	3200	0.1828	584.8	0.4795	0.0876
Wheat flour	kg	3330	0.0002	0.7	0.5303	0.0001
Corn Flour	kg	3200	0.0024	7.8	0.3571	0.0009
Palm flour	kg	3200	0.0179	57.4	0.4573	0.0082
Tubers						
Cassava	kg	1309	0.0513	67.2	0.2990	0.0154
Sweet potatoes	kg	1252	0.0129	16.2	0.2990	0.0039
Sago (ambon sago)	kg	3380	0.0031	10.4	0.2782	0.0009
Taro	kg	1120	0.0087	9.8	0.2652	0.0023
Potatoes	kg	521	0.0014	0.7	1.1962	0.0016
Fish						
V. small sea fish	kg	740	0.0105	7.7	0.8605	0.0090
Other fresih fish	kg	824	0.0022	1.8	0.9590	0.0021
Salted fish	kg	824	0.0009	0.8	2.3677	0.0022
Canned fish	kg	3380	0.0005	1.8	1.8394	0.0010
Fresh shrimp	kg	619	0.0011	0.7	0.9933	0.0011
Meat						
Beef	kg	2070	0.0038	7.8	2.3923	0.0090
Buffalo meat	kg	840	0.0001	0.1	2.5000	0.0003
Goat	kg	1540	0.0006	0.9	1.9866	0.0012
Pork	kg	4165	0.0079	32.8	2.1332	0.0168
Chicken	kg	3020	0.0039	11.7	2.3923	0.0092
Canned meat	kg	2410	0.0000	0.1	2.6495	0.0001
Meat scraps and bones	kg	1280	0.0012	1.5	1.6692	0.0020
Eggs and dairy products						
Chicken eggs	each	66	0.0222	1.5	0.1113	0.0025
Canned sweet milk	390 grs	1334	0.0003	0.4	1.9102	0.0006
Powdered milk	kg	5090	0.0001	0.4	3.2269	0.0003
Vegetables						
Spinach	kg	114	0.0102	1.2	0.4258	0.0044
Kangkung	kg	168	0.0131	2.2	0.4966	0.0065
Cabbage	kg	180	0.0044	0.8	0.5564	0.0025
Light mustard green	kg	66	0.0124	0.8	0.5564	0.0069
Dark mustard green	kg	191	0.0031	0.6	0.4173	0.0013
String bean	kg	306	0.0004	0.1	0.6835	0.0003
Tomato	kg	190	0.0048	0.9	0.6208	0.0030
Carrot	kg	288	0.0005	0.1	0.5564	0.0003
Cucumber	kg	69	0.0039	0.3	0.2483	0.0010
Cassava leaves	kg	635	0.0541	34.3	0.3476	0.0188
Eggplant	kg	373	0.0056	2.1	0.5163	0.0029
Squash	kg	192	0.0092	1.8	0.2133	0.0020
Papaya, young	kg	198	0.0271	5.4	0.3148	0.0085
Papaya flowers	kg	198	0.0121	2.4	0.4966	0.0060
Lettuce	kg	130	0.0001	0.0	1.7877	0.0001
Pumpkin	kg	260	0.0290	7.5	0.1768	0.0051
Pumpkin leaves	kg	190	0.0253	4.8	0.3547	0.0090
A Timor veg	kg	635	0.0065	4.1	0.4451	0.0029
Tips of banana plants	kg	644	0.0130	8.4	0.2133	0.0028
Green bitter melon	kg	320	0.0020	0.6	0.4966	0.0010
Onion (big)	kg	351	0.0060	2.1	1.1111	0.0067
Garlic	kg	836	0.0029	2.4	1.1128	0.0032

Table 35 : Food bundle per person per day, West Rural

	Unit	Calories per unit (kcals)	Quantity consumed	Daily calories provided	Price per unit (US$)	Daily value (US$)
Red pepper/chili	kg	264	0.0034	0.9	1.0726	0.0036
Legumes, nuts						
Soya bean	kg	3810	0.0013	5.0	0.5981	0.0008
Mung bean	kg	3373	0.0047	15.9	0.5000	0.0024
Cashews	kg	6060	0.0000	0.2	1.1348	0.0000
Peanuts	kg	4520	0.0037	16.5	0.5960	0.0022
Kidney beans	kg	3330	0.0069	22.9	0.9569	0.0066
Tofu & Tempe	kg	1115	0.0000	0.0	2.7820	0.0000
Fruits						
Orange/tangerines	kg	311	0.0007	0.2	0.4542	0.0003
Mango	kg	365	0.0011	0.4	0.2500	0.0003
Avocado	kg	519	0.0003	0.1	0.2500	0.0001
Pineapple	kg	204	0.0004	0.1	0.3596	0.0001
Banana	kg	920	0.0233	21.5	0.2500	0.0058
Papaya	kg	345	0.0091	3.1	0.2582	0.0023
Watermelon	kg	129	0.0020	0.3	0.2271	0.0005
Soursop	kg	660	0.0007	0.5	0.2667	0.0002
Jackfruit	kg	297	0.0023	0.7	0.5000	0.0012
Coconuts	kg	3363	0.0100	33.5	0.0993	0.0010
Oil and fats						
Coconut oil	lt	6960	0.0009	6.0	0.6677	0.0006
Pork oil	lt	6960	0.0004	2.6	1.1348	0.0004
Other cooking oil	lt	6960	0.0163	113.8	1.4642	0.0239
Dry coconut	kg	6960	0.0013	8.8	0.5000	0.0006
Beverages, drinks						
Sugar	kg	3640	0.0215	78.1	0.7500	0.0161
Tea	kg	1320	0.0004	0.5	5.4877	0.0022
Coffee	kg	3520	0.0068	24.0	2.6914	0.0184
Ingredients						
Salt	kg	0	0.0077	0.0	0.4065	0.0031
Paprika	kg	2890	0.0007	2.0	1.1348	0.0008
Soy sauce sweet/sour	140 ml	52	0.0000	0.0	1.9599	0.0000
MSG	kg	0	0.0015	0.0	5.0463	0.0074
Miscellaneous foods						
Instant noodles	kg	4450	0.0053	23.8	1.7031	0.0091
White bread	small piece	53	0.0026	0.1	0.5964	0.0016
Sweet bread	each	162	0.0660	10.7	0.0500	0.0033
Biscuits	kg	4263	0.0002	0.7	2.4832	0.0004
Alcoholic drinks						
Beer	lt	238	0.0000	0.0	2.6553	0.0000

Sources and notes: TLSLS 2007.

Table 36 : Food bundle per person per day, West Urban

	Unit	Calories per unit (kcals)	Quantity consumed	Daily calories provided	Price per unit (US$)	Daily value (US$)
Total per person per day				2100.0		0.5270
Cereals						
Local rice	kg	3614	0.1190	430.0	0.4812	0.0573
Imported rice	kg	3614	0.1424	514.5	0.4979	0.0709
Corn	kg	3200	0.1188	380.3	0.3763	0.0447
Wheat flour	kg	3330	0.0008	2.8	0.2938	0.0002
Corn Flour	kg	3200	0.0002	0.7	0.4000	0.0001
Palm flour	kg	3200	0.0027	8.6	0.5035	0.0014
Tubers						
Cassava	kg	1309	0.0562	73.5	0.3357	0.0189
Sweet potatoes	kg	1252	0.0197	24.7	0.2942	0.0058
Sago (ambon sago)	kg	3380	0.0014	4.8	0.3089	0.0004
Taro	kg	1120	0.0114	12.7	0.2574	0.0029
Potatoes	kg	521	0.0008	0.4	0.5186	0.0004
Fish						
Tuna	kg	904	0.0000	0.0	1.0296	0.0000
V. small sea fish	kg	740	0.0095	7.0	0.9563	0.0091
Other fresih fish	kg	824	0.0033	2.7	2.5000	0.0083
Salted fish	kg	824	0.0005	0.4	1.9246	0.0009
Canned fish	kg	3380	0.0006	2.1	1.1251	0.0007
Fresh shrimp	kg	619	0.0002	0.1	0.9794	0.0002
Dried shrimp	kg	619	0.0001	0.1	0.9794	0.0001
Meat						
Beef	kg	2070	0.0063	13.0	2.5740	0.0161
Buffalo meat	kg	840	0.0016	1.4	2.5930	0.0042
Goat	kg	1540	0.0018	2.8	2.0744	0.0038
Pork	kg	4165	0.0095	39.6	2.4484	0.0233
Chicken	kg	3020	0.0052	15.7	3.2645	0.0170
Canned meat	kg	2410	0.0002	0.5	1.9587	0.0004
Meat scraps and bones	kg	1280	0.0041	5.2	1.4690	0.0060
Eggs and dairy products						
Chicken eggs	each	66	0.0480	3.1	0.1007	0.0048
Canned sweet milk	390 grs	1334	0.0022	3.0	1.5067	0.0033
Powdered milk	kg	5090	0.0002	1.2	2.6298	0.0006
Baby milk	kg	4180	0.0001	0.4	7.5529	0.0008
Vegetables						
Spinach	kg	114	0.0067	0.8	0.3917	0.0026
Kangkung	kg	168	0.0235	3.9	0.4448	0.0104
Cabbage	kg	180	0.0038	0.7	0.5000	0.0019
Light mustard green	kg	66	0.0186	1.2	0.3983	0.0074
Dark mustard green	kg	191	0.0033	0.6	0.2593	0.0009
String bean	kg	306	0.0004	0.1	0.6995	0.0003
Tomato	kg	190	0.0073	1.4	0.5000	0.0037
Carrot	kg	288	0.0006	0.2	0.5148	0.0003
Cucumber	kg	69	0.0015	0.1	0.1729	0.0003
Cassava leaves	kg	635	0.0416	26.4	0.3432	0.0143
Eggplant	kg	373	0.0067	2.5	0.4782	0.0032
Squash	kg	192	0.0033	0.6	0.2448	0.0008
Papaya, young	kg	198	0.0232	4.6	0.2987	0.0069
Papaya flowers	kg	198	0.0168	3.3	0.4812	0.0081
Lettuce	kg	130	0.0004	0.0	0.9958	0.0004
Pumpkin	kg	260	0.0098	2.5	0.2406	0.0023
Pumpkin leaves	kg	190	0.0119	2.3	0.3917	0.0047
A Timor veg	kg	635	0.0037	2.4	0.5035	0.0019
Tips of banana plants	kg	644	0.0114	7.3	0.2574	0.0029

Table 36 : Food bundle per person per day, West Urban

	Unit	Calories per unit (kcals)	Quantity consumed	Daily calories provided	Price per unit (US$)	Daily value (US$)
Green bitter melon	kg	320	0.0016	0.5	0.5035	0.0008
Onion (big)	kg	351	0.0070	2.5	1.0071	0.0070
Garlic	kg	836	0.0053	4.4	1.0071	0.0053
Red pepper/chili	kg	264	0.0030	0.8	1.0296	0.0030
Legumes, nuts						
Soya bean	kg	3810	0.0003	1.1	0.4897	0.0001
Mung bean	kg	3373	0.0101	34.0	0.5268	0.0053
Peanuts	kg	4520	0.0048	21.8	0.6294	0.0030
Kidney beans	kg	3330	0.0069	22.9	0.6874	0.0047
Tofu & Tempe	kg	1115	0.0011	1.2	0.2518	0.0003
Fruits						
Orange/tangerines	kg	311	0.0016	0.5	0.5148	0.0008
Mango	kg	365	0.0027	1.0	0.2448	0.0007
Apples	kg	485	0.0000	0.0	0.9563	0.0000
Pineapple	kg	204	0.0017	0.3	0.2448	0.0004
Banana	kg	920	0.0239	22.0	0.2593	0.0062
Papaya	kg	345	0.0087	3.0	0.2500	0.0022
Watermelon	kg	129	0.0010	0.1	0.2581	0.0003
Jackfruit	kg	297	0.0033	1.0	0.2448	0.0008
Coconuts	kg	3363	0.0098	33.0	0.1037	0.0010
Oil and fats						
Coconut oil	lt	6960	0.0011	7.7	0.8031	0.0009
Pork oil	lt	6960	0.0005	3.5	0.6864	0.0003
Other cooking oil	lt	6960	0.0207	144.4	1.4946	0.0310
Dry coconut	kg	6960	0.0004	2.5	0.1037	0.0000
Butter and margarine	kg	7170	0.0000	0.1	1.3171	0.0000
Beverages, drinks						
Sugar	kg	3640	0.0232	84.6	0.6971	0.0162
Tea	kg	1320	0.0006	0.8	4.9791	0.0031
Coffee	kg	3520	0.0082	28.8	2.5000	0.0205
Ingredients						
Salt	kg	0	0.0063	0.0	0.4000	0.0025
Paprika	kg	2890	0.0007	2.1	1.0071	0.0007
Soy sauce sweet/sour	140 ml	52	0.0002	0.0	3.5966	0.0008
MSG	kg	0	0.0019	0.0	5.1860	0.0101
Miscellaneous foods						
Instant noodles	kg	4450	0.0074	33.1	1.6143	0.0120
White bread	small piece	53	0.0007	0.0	0.0504	0.0000
Sweet bread	each	162	0.1626	26.3	0.0504	0.0082
Biscuits	kg	4263	0.0008	3.3	2.5000	0.0019
Sweets/cakes	each	37	0.0004	0.0	1.0323	0.0005
Alcoholic drinks						
Beer	lt	238	0.0000	0.0	3.0176	0.0001

Sources and notes: TLSLS 2007.

There is however one practical issue in implementing the above procedure of determining poverty lines. The procedure relies on the identification of the reference group of the poor whose food consumption pattern and the prices paid by whom go into the determination of poverty lines. However, without the poverty lines, we do not know who the poor are.

To get around this circularity, an iterative method is used: In the first iteration, the reference group for determining the food poverty line is taken to be the bottom 40% of the national population ranked according to constant-price per capita consumption.[20] The bottom 40% is motivated by the earlier estimate of poverty incidence of the same magnitude based on TLSS 2001 (World Bank, 2003). From the second iteration onwards, the reference group of the poor is taken to be the population considered poor from the previous iteration. The iterative method thus involves the following series of steps

(1) Use the temporal price indices to express all consumption values in constant December 2007 prices, and identify the reference group of the poor in the first iteration as the bottom 40% of the population ranked by constant-price per capita household consumption.

(2) Estimate per capita daily consumption of food items among the reference group by domain.

(3) Estimate median prices for food items amongst the reference group by domain.

(4) Generate the value of constant food poverty lines by area, which is simply the aggregation of the value of the daily per capita consumption of food items scaled to provide 2,100 calories per person per day.

(5) Estimate the non-food component of the poverty line for which a non-parametric approach is used (for each domain).

> (5.1) Per capita non-food consumption is regressed on per capita total consumption using a locally weighted regression.

> (5.2) Predicted per capita non-food consumption is derived.

> (5.3) Predicted per capita food consumption is obtained as the difference between actual total consumption and predicted non-food consumption.

> (5.4) The upper non-food poverty line is the average predicted non-food consumption of the population whose predicted food consumption lies within plus/minus 5% of the food poverty line.

> (5.5) The lower non-food poverty line is the average predicted non-food consumption of the population whose actual total consumption lies within plus/minus 5% of the food poverty line.

(6) The upper (lower) poverty line will be the sum of the food poverty line plus the upper (lower) non-food allowance. These poverty lines will be at constant prices.

(7) Calculate the poverty incidence under the upper (lower) poverty line and use that group as the reference group in the next iteration.

(8) The algorithm stops when the average of the absolute value of the percentage change in the upper (lower) poverty lines by domain is less than 5%.

In case of all the six domains for which the poverty lines are estimated, it took only two iterations for the poverty lines to converge to the final estimates presented in the report.

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[20] Constant prices imply monetary values deflated over time by the temporal price index, but not spatially.

Poverty measures

The analysis presented in this report uses three poverty measures within the Foster, Greer and Thorbecke (1984) class of poverty measures. This family of measures can be written as:

$$P_\alpha = (1/n) \sum_{i=1}^{n} \max \left\{ \left(\frac{z - y_i}{z} \right)^\alpha, \quad 0 \right\}$$

where α is some non-negative parameter, z is the poverty line, y denotes consumption, i represents individuals, n is the total number of individuals in the population.

The headcount index (α=0) gives the share of the poor in the total population, i.e. it measures the percentage of population whose per capita consumption is below the poverty line. This is the most widely used poverty measure mainly because it is very simple and easy to interpret. However, the headcount index has some well-known limitations. It takes into account neither how close or far the consumption levels of the poor are relative to the poverty line nor the distribution among the poor.

The poverty gap (α=1) is the average consumption shortfall of the population relative to the poverty line, where the non-poor are assumed to have a zero shortfall, and the shortfall itself is expressed as a proportion of the poverty line. Since the greater the shortfall, the higher the gap, this measure overcomes the first limitation of the headcount. For instance, if the average consumption of the poor declines, there will be no change in the headcount index since the same number of people are below the poverty line, but the poverty gap index will increase. The poverty gap index is often referred to as a measure of the depth of poverty.

Finally, the squared poverty gap index (α=2) is sensitive to not only the average consumption shortfall of the poor relative to poverty line, but also to the distribution of consumption amongst the poor. Thus, in contrast to the poverty gap index, which gives equal weight to the consumption shortfall of all the poor, the squared poverty gap index assigns relatively higher weights to the largest poverty gaps. For instance, if a transfer is made from a poor person to a poorer person, the headcount index will remain unchanged since the number of poor has not changed. The poverty gap index will also remain unchanged since the average consumption shortfall relative to the poverty line is the same. But the squared poverty gap index will decline because the shortfall of a poorer person (who has a higher weight) has declined relative to the increase in the shortfall of a less poor person (who has a lower weight). The squared poverty gap index is also referred to as a measure of the severity of poverty.

These measures satisfy some useful properties. First, they are able to combine individual indicators of welfare into aggregated measures of poverty for the population. Second, they are additive in the sense that the aggregate poverty level is equal to the population-weighted average of the poverty levels of all subgroups of the population. Third, the poverty gap and the squared poverty gap measures satisfy the monotonicity axiom, which states that even if the number of the poor is the same, but there is a welfare reduction for a poor household, the measure of poverty should increase. And fourth, the squared poverty gap measure also satisfies with the transfer axiom: if there is a transfer from one poor household to a less poor household, the degree of poverty should increase.[21]

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[21] The monotonicity and transfer axioms were proposed by Sen (1976).

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