

Note on Conversion Factors for Food Item-Non-standard Measurement Unit Combinations
In the Malawi Third Integrated Household Survey (IHS3) 2010/11 Data

Introduction

In order to obtain kilogram-equivalent measures of consumption food item-nonstandard measurement unit combinations reported as part of the Malawi Third Integrated Household Survey (IHS3) 2010/11, a market survey was commissioned during the course of the IHS3 fieldwork. This note summarizes the steps taken in preparing for and conducting the market survey, and in processing the raw market survey data in order to construct regional conversion factor libraries for the food item-non-standard measurement unit combinations.

Identification of Food Item-Non-standard Measurement Unit Combinations

Previous rounds of the IHS and many other surveys in Malawi commonly allow for reporting of the food item consumption in non-standard measurement units. In general, the use of non-standard units of measurements is common across Malawi particularly for agricultural produce, and relatively large variation exists in food item-non-standard measurement combinations across space and size categories.

Cassava, for example, tends to be most commonly reported in pieces (representing 1 tuber), but there exists a significant difference in the size of cassava tubers between the northern region (where cassava tubers grow larger) and the southern region. Thus, the kilogram-equivalent consumption of one piece of cassava by a household in the northern region is not the same as the kilogram-equivalent one piece of cassava consumed by a southern region household.

Furthermore, non-standard units of measurements may vary greatly even within the unit. A number 10 or 12 plate of beans may be sold flat or heaped. If the beans on the plate are heaped, the overall quantity of beans is substantially greater than that of a plate where the beans are flat. Another example is that of buckets. Likewise, these can be flat or heaped but the buckets themselves may also be different sizes. Heaps of tomatoes can also vary greatly across geographic areas, seasons, and number of tomatoes in a heap.

The number of food item-non-standard unit combinations can be immense, and the inclusion of every item unit condition combination in a survey instrument is not possible. Thus, it is important to narrow the spread of item unit condition combinations that will both allow a higher specificity to be reached in food consumption data, and also be manageable to implement while not greatly increasing non-sampling error. In addition, the IHS3 added sub-unit classifications to key food-non-standard unit combinations, in an attempt to better capture to variations in size.

Towards this end, the key food-non-standard unit combinations of interest were determined based on the analysis of the food consumption data from the Second Integrated Household Survey 2004/05 (IHS2). The IHS3 team first focused on the food items that make up 85 percent of the caloric intake,

focused on the non-standard unit measurements recorded in the data for these items, and determined the appropriate sub-unit classification (Small vs. Medium vs. Large or Flat vs. Heaped, etc...) depending on the measurement unit in question. Once the food-non-standard unit-size combinations of interest were determined, an interview aid containing the photo corresponding to each food-non-standard unit combination was put together. Each enumerator had a copy of this photo aid that he/she used in soliciting information from the IHS3 households on food consumption. See Appendix A for a copy of the photo aid.

Market Survey

The preliminary IHS3 consumption data was reviewed in January 2011 as the field work was in progress. All food item-non-standard unit (and size, if applicable) combinations that had at least 5 observations were identified for inclusion as part of a market questionnaire that was designed to be administered in 48 markets across 31 districts before the end of the field work.

As noted above, the purpose of the market survey was to obtain kilogram-equivalent measurements corresponding to food-non-standard unit (and size, if applicable) combinations observed in the IHS3 data, so that the data could inform the computation regional conversion factors based on averages taken across the markets in accordance with the regional location. For each food item-non-standard unit (and size, if applicable) combination that was identified in a given market, two weight measurements were taken and recorded on the questionnaire. See Appendix B for a copy of the market questionnaire.

Each of the 16 field teams surveyed 3 markets in the period of February-March 2011, in the proximity of the enumeration areas that they were assigned at that time. For each team, at least one urban and one rural market were purposively selected to be included in the market survey. The selection of the third market was left to the discretion of the team supervisors. See Appendix C for the list of the markets visited.

The choice of the scales used in the market survey was ADAM LBK 12 digital scale, which has a maximum weight of 12 kilograms. These scales are similar to those used by the Malawi National Statistical Office (NSO) Consumer Price Index (CPI) unit, and were determined to be the best choice considering durability, portability and accuracy. The cost of these scales was relatively high however, thus only 8 scales were procured for the market survey activities. The scales were thus shared among the 16 teams. 8 teams were selected to first conclude their market instrument implementation before passing the scale to their neighboring team.

Conversion Factor Database

Based on the data from the Market Survey, regional mean conversion factors were computed for the food item-non-standard unit (and size, if applicable) combinations captured in the market questionnaire. See Appendix D for the regional mean item unit conversion factors.

APPENDIX A - IHS3 PHOTO AID:



105. Green Maize - Piece
Small (a)
Medium (b)
Large (c)

201.
Cassava -
Piece

Small (a)
Medium (b)
Large (c)



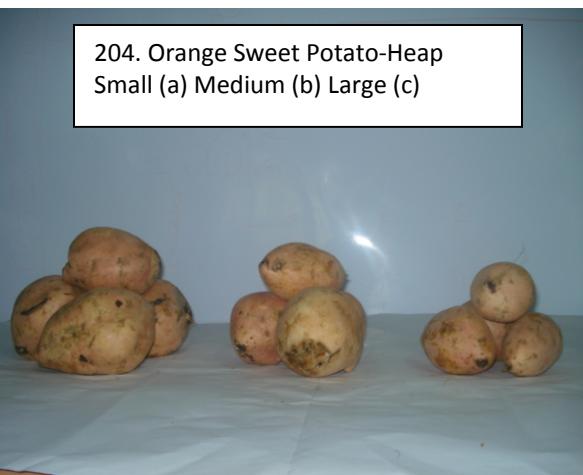
203. White Sweet Potato - Heap
Small (a)
Medium (b)
Large (c)



204. Orange Sweet Potato-Piece
Small (a) Medium (b) Large (c)

203. White Sweet Potato-Piece
Small (a) Medium (b) Large(c)

204. Orange Sweet Potato-Heap
Small (a) Medium (b) Large (c)



302. Bean Brown-No.10 Plate
Flat (a) Heaped (b)



303. Pigeon Peas-No 10. Plate
Flat (a) Heaped (b)



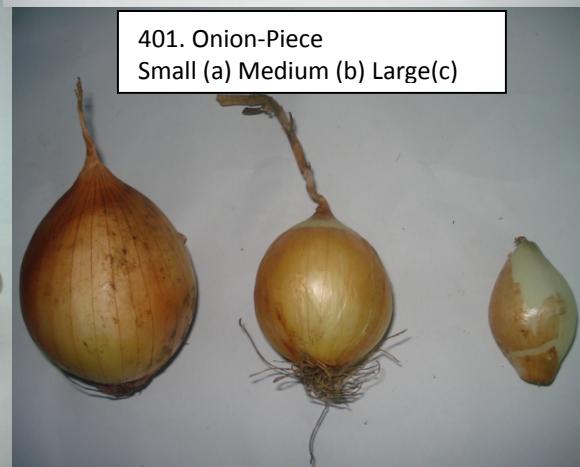
304. Groundnuts-No.10 Plate
Flat (a) Heaped (b)



305. Groundnut Flour-No.10 Plate
Flat (a) Heaped (b)



401. Onion-Piece
Small (a) Medium (b) Large(c)



401. Onion-Bunch
Small (a) Medium (b) Large(c)



402. Cabbage-Piece
Small (a) Medium (b) Large(c)



403. Tanaposi-Bunch
Small (a) Medium (b) Large(c)



408. Tomato-Heap
Small (a) Medium (b) Large (c)



404. Nkhwani-Heap
Small (a) Medium (b) Large(c)



408. Tomato-Piece
Small (a) Medium (b) Large(c)



410. Pumpkin-Piece
Small (a) Medium (b) Large(c)



411. Okra-Piece
Small (a) Medium (b) Large(c)



502. Dried Fish-Heap.
Small (a) Medium (b) Large(c)



411. Okra -
Heap
Small (a)
Medium (b)
Large(c)



502. Dried Fish-Piece
Small (a) Medium (b) Large (c)



502. Dried Fish-Heap
Small (d) Medium (e) Large (f)





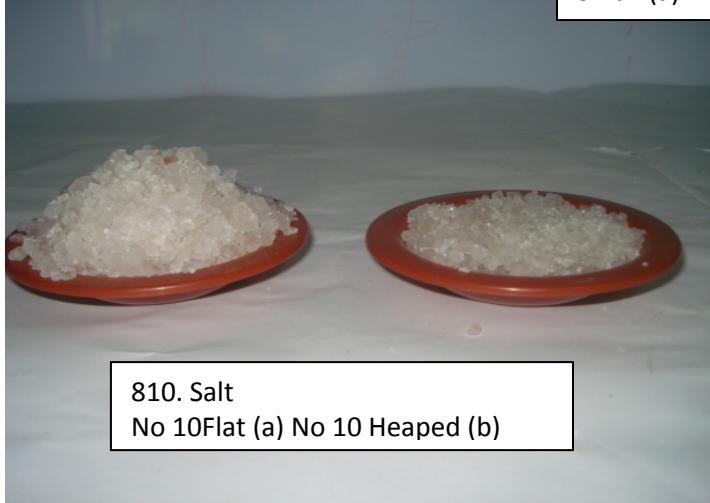
606. Guava-Piece
Small (a) Medium (b) Large (c)



803. Cooking Oil-Tube
Small (a) Medium (b) Large (c)



810. Salt
No 10Flat (a) No 10 Heaped (b)



APPENDIX B - MARKET QUESTIONNAIRE:

STRICTLY CONFIDENTIAL



Malawi Government

National Statistical Office

THIRD INTEGRATED HOUSEHOLD SURVEY, 2010/11

THIS SURVEY IS BEING CONDUCTED BY THE NATIONAL STATISTICAL OFFICE UNDER THE AUTHORITY OF THE 1967 STATISTICS ACT.

THIS INFORMATION IS STRICTLY CONFIDENTIAL AND IS TO BE USED FOR STATISTICAL PURPOSES ONLY.

MARKET QUESTIONNAIRE

MODULE A: MARKET IDENTIFICATION

WRITE CODES FOR DISTRICT; TA, STA, OR TOWN; AND WRITE NAME OF DISTRICT; TA; VILLAGE; MARKET.

MA01. DISTRICT: CODE NAME

MA02. TA, STA, or TOWN:

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MA03 PLACE/VILLAGE:

MA04. NAME OF MARKET

MA05. GPS COORDINATES LATITUDE (S) LONGITUDE (E)

MA06 NAME OF FIELD SUPERVISOR:

MA08. DATE OF MARKET SURVEY: DAY | / MONTH | / YEAR | | |

MA09. NAME OF DATA ENTRY CLERK:

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MA11 DATE OF MARKET SURVEY DE: DAY | | | / MONTH | | | / YEAR | | |

MA12. COMMENTS:

MODULE B: FOOD UNIT MEASUREMENT

FOOD ITEM	ITEM CODE	UNIT	SIZE	UNIT CODE	Is this item unit sold in the market? Yes...1 No....2 >> Next Row	Item Sample Weight #1 Kgs	Item Sample Weight #2 Kgs	Comments
Cereals, Grains & Cereal Products:								
Maize ufa mgaiwa (normal flour)	101	PAIL	SMALL	4A				
	101	PAIL	MEDIUM	4B				
	101	PAIL	LARGE	4C				
	101	No. 12 PLATE		7				
	101	TIN		17				
	101	BASIN		21				
Maize ufa refined (fine flour)	102	PAIL	SMALL	4A				
	102	PAIL	MEDIUM	4B				
	102	PAIL	LARGE	4C				
	102	No. 12 PLATE		7				
	102	BASKET (DENGU)(SHELLED)		12				
	102	BASIN		21				
Maize ufa madeya (bran flour)	103	PAIL	SMALL	4A				
	103	PAIL	MEDIUM	4B				
	103	PAIL	LARGE	4C				
	103	BASIN		21				
Maize grain (not as ufa)	104	PAIL	SMALL	4A				
	104	PAIL	MEDIUM	4B				
	104	PAIL	LARGE	4C				
	104	No. 10 PLATE		6				
	104	No. 12 PLATE		7				
	104	PIECE		9				
	104	CUP		16				
	104	BASIN		21				
Green maize	105	PIECE	SMALL	9A				
	105	PIECE	MEDIUM	9B				
	105	PIECE	LARGE	9C				
Rice	106	PAIL (SMALL)		4				
	106	No. 10 PLATE		6				
	106	No. 12 PLATE		7				
	106	PIECE		9				
	106	CUP		16				
	106	BASIN		21				
Finger millet (mawere)	107	No. 10 PLATE		6				
	107	No. 12 PLATE		7				
	107	CUP		16				
	107	BASIN		21				
Sorghum (mapira)	108	PAIL (SMALL)		4				
	108	No. 10 PLATE		6				
	108	No. 12 PLATE		7				
	108	CUP		16				
	108	BASIN		21				
Pearl millet (mcchewere)	109	PAIL (SMALL)		4				
Wheat flour	110	PIECE		9				
Bread	111	PIECE		9				
Buns, scones	112	PIECE		9				
Biscuits	113	PIECE		9				
	113	SATCHET/TUBE		22				
Spaghetti, macaroni, pasta	114	PIECE		9				
	114	SATCHET/TUBE		22				

Roots,Tuber & Plantains:						
Cassava tubers	201	PIECE	SMALL	9A		
	201	PIECE	MEDIUM	9B		
	201	PIECE	LARGE	9C		
	201	HEAP		10		
	201	BASIN		21		
Cassava flour	202	PAIL (SMALL)		4		
	202	PAIL (LARGE)		5		
	202	No. 12 PLATE		7		
	202	PIECE		9		
	202	CUP		16		
	202	BASIN		21		
White sweet potato	203	PAIL (SMALL)		4		
	203	PAIL (LARGE)		5		
	203	PIECE	SMALL	9A		
	203	PIECE	MEDIUM	9B		
	203	PIECE	LARGE	9C		
	203	HEAP	SMALL	10A		
	203	HEAP	MEDIUM	10B		
	203	HEAP	LARGE	10C		
	203	BASKET (DENGU)(UNSHELLED)		13		
	203	BASIN		21		
Orange sweet potato	204	PAIL (SMALL)		4		
	204	PAIL (LARGE)		5		
	204	PIECE	SMALL	9A		
	204	PIECE	MEDIUM	9B		
	204	PIECE	LARGE	9C		
	204	HEAP	SMALL	10A		
	204	HEAP	MEDIUM	10B		
	204	HEAP	LARGE	10C		
Irish potato	205	PAIL (SMALL)		4		
	205	PAIL (LARGE)		5		
	205	No. 12 PLATE		7		
	205	PIECE		9		
	205	HEAP		10		
	205	BASKET (DENGU)(UNSHELLED)		13		
	205	TIN		17		
	205	BASIN		21		
Potato crisps	206	PIECE		9		
	206	SATCHET/TUBE		22		
Plantain, cooking banana	207	BUNCH		8		
	207	PIECE		9		
Cocoyam (masimbi)	208	PIECE		9		
	208	HEAP		10		
Nuts & Pulses:						
Bean, white	301	No. 10 PLATE		6		
	301	No. 12 PLATE		7		
	301	CUP		16		
Bean, brown	302	No. 10 PLATE	FLAT	6A		
	302	No. 10 PLATE	HEAPED	6B		
	302	No. 12 PLATE		7		
	302	CUP		16		
	302	BASIN		21		

Nuts & Pulses (Continued):						
Pigeonpea (nandolo)	303	PAIL (SMALL)		4		
	303	No. 10 PLATE	FLAT	6A		
	303	No. 10 PLATE	HEAPED	6B		
	303	No. 12 PLATE		7		
	303	HEAP		10		
	303	CUP		16		
	303	BASIN		21		
Groundnut	304	PAIL (SMALL)		4		
	304	PAIL (LARGE)		5		
	304	No. 10 PLATE	FLAT	6A		
	304	No. 10 PLATE	HEAPED	6B		
	304	No. 12 PLATE		7		
	304	BUNCH		8		
	304	HEAP		10		
	304	CUP		16		
	304	BASIN		21		
Groundnut flour	305	No. 10 PLATE	FLAT	6A		
	305	No. 10 PLATE	HEAPED	6B		
	305	No. 12 PLATE		7		
	305	CUP		16		
	305	BASIN		21		
Soybean flour	306	No. 10 PLATE		6		
	306	No. 12 PLATE		7		
	306	CUP		16		
	306	BASIN		21		
Ground bean (nzama)	307	No. 10 PLATE		6		
	307	No. 12 PLATE		7		
	307	CUP		16		
	307	BASIN		21		
Cowpea (khobwe)	308	No. 10 PLATE		6		
	308	No. 12 PLATE		7		
	308	HEAP		10		
	308	CUP		16		
	308	BASIN		21		
Macademia nuts	309	No. 10 PLATE		6		
	309	PIECE		9		
Vegetables:						
Onion	401	BUNCH	SMALL	8A		
	401	BUNCH	MEDIUM	8B		
	401	BUNCH	LARGE	8C		
	401	PIECE	SMALL	9A		
	401	PIECE	MEDIUM	9B		
	401	PIECE	LARGE	9C		
	401	HEAP		10		
Cabbage	402	PIECE	SMALL	9A		
	402	PIECE	MEDIUM	9B		
	402	PIECE	LARGE	9C		
Tanaposi/Rape	403	BUNCH	SMALL	8A		
	403	BUNCH	MEDIUM	8B		
	403	BUNCH	LARGE	8C		
	403	PIECE		9		
	403	HEAP		10		
	403	BASIN		21		

Vegetables (Continued):						
Nkhwani	404	No. 12 PLATE		7		
	404	BUNCH		8		
	404	PIECE		9		
	404	HEAP	SMALL	10A		
	404	HEAP	MEDIUM	10B		
	404	HEAP	LARGE	10C		
	404	BASIN		21		
Chinese cabbage	405	BUNCH		8		
	405	HEAP		10		
Tomato	408	PIECE	SMALL	9A		
	408	PIECE	MEDIUM	9B		
	408	PIECE	LARGE	9C		
	408	HEAP	SMALL	10A		
	408	HEAP	MEDIUM	10B		
	408	HEAP	LARGE	10C		
	408	BASIN		21		
Cucumber	409	PIECE		9		
	409	BASIN		21		
Pumpkin	410	PIECE	SMALL	9A		
	410	PIECE	MEDIUM	9B		
	410	PIECE	LARGE	9C		
Okra / Therere	411	No. 10 PLATE		6		
	411	No. 12 PLATE		7		
	411	PIECE	SMALL	9A		
	411	PIECE	MEDIUM	9B		
	411	PIECE	LARGE	9C		
	411	HEAP	SMALL	10A		
	411	HEAP	MEDIUM	10B		
	411	HEAP	LARGE	10C		
	411	CUP		16		
Mushroom	411	BASIN		21		
	413	No. 10 PLATE		6		
	413	No. 12 PLATE		7		
	413	PIECE		9		
	413	HEAP		10		
	413	BASIN		21		
Meat, Fish, and Animal Products						
Eggs	501	PIECE		9		
Dried fish (Large Variety)	502	PIECE	SMALL	9A		
	502	PIECE	MEDIUM	9B		
	502	PIECE	LARGE	9C		
	502	HEAP	SMALL	10A		
	502	HEAP	MEDIUM	10B		
Dried fish (Small Variety)	502	HEAP	LARGE	10C		
	502	HEAP	SMALL	10D		
	502	HEAP	MEDIUM	10E		
Fresh fish (Large Variety)	502	HEAP	LARGE	10F		
	503	PIECE	SMALL	9A		
	503	PIECE	MEDIUM	9B		
Fresh fish (Large Variety)	503	PIECE	LARGE	9C		
	503	HEAP	SMALL	10D		
	503	HEAP	MEDIUM	10E		
	503	HEAP	LARGE	10F		

Meat, Fish & Animal Products (Continued):						
Fresh fish (Small Variety)	503	HEAP	SMALL	10A		
	503	HEAP	MEDIUM	10B		
	503	HEAP	LARGE	10C		
Beef	504	PIECE		9		
Goat	505	PIECE		9		
Pork	506	PIECE		9		
Mutton	507	PIECE		9		
Chicken	508	PIECE		9		
Other poultry - guinea fowl, doves, etc. **	509	PIECE		9		
Small animal – rabbit, mice, etc. **	510	PIECE		9		
Termites, other insects (eg Ngumbi, caterpillar) **	511	No. 10 PLATE		6		
	511	No. 12 PLATE		7		
	511	PIECE		9		
	511	HEAP		10		
	511	BASIN		21		
Tinned meat or fish	512	TIN		17		
Smoked fish	513	PIECE		9		
	513	HEAP		10		
Fruits:						
Mango	601	PAIL (SMALL)		4		
	601	BUNCH		8		
	601	PIECE	SMALL	9A		
	601	PIECE	MEDIUM	9B		
	601	PIECE	LARGE	9C		
	601	TIN		17		
	601	BASIN		21		
Banana	602	BUNCH	SMALL	8A		
	602	BUNCH	MEDIUM	8B		
	602	BUNCH	LARGE	8C		
	602	PIECE	SMALL	9A		
	602	PIECE	MEDIUM	9B		
	602	PIECE	LARGE	9C		
Citrus – naartje, orange, etc. **	603	PIECE		9		
	603	BASIN		21		
Pineapple	604	PIECE		9		
Papaya	605	PIECE		9		
Guava	606	PAIL (SMALL)		4		
	606	PIECE	SMALL	9A		
	606	PIECE	MEDIUM	9B		
	606	PIECE	LARGE	9C		
	606	BASIN		21		
Avocado	607	PIECE		9		
Wild fruit (masau, malambe, etc.)**	608	PAIL (SMALL)		4		
	608	No. 10 PLATE		6		
	608	No. 12 PLATE		7		
	608	PIECE		9		
	608	HEAP		10		
	608	CUP		16		
	608	BASIN		21		
Apple	609	PIECE		9		

Milk and Milk Products						
Powdered milk	702	PIECE		9		
	702	CUP		16		
	702	TIN		17		
	702	TEASPOON		20		
	702	SATCHET/TUBE		22		
Margarine - Blue band	703	PIECE		9		
	703	TIN		17		
	703	SATCHET/TUBE		22		
Sugar, Fats & Oil:						
Sugar	801	No. 10 PLATE		6		
	801	No. 12 PLATE		7		
	801	PIECE		9		
	801	CUP		16		
	801	TEASPOON		20		
	801	SATCHET/TUBE		22		
Sugar Cane	802	PIECE		9		
Spices & Miscellaneous:						
Salt	810	No. 10 PLATE	FLAT	6A		
	810	No. 10 PLATE	HEAPED	6B		
	810	No. 12 PLATE		7		
	810	PIECE		9		
	810	HEAP		10		
	810	CUP		16		
	810	TEASPOON		20		
	810	SATCHET/TUBE		22		
Cooked Foods from Vendors:						
Maize - boiled or roasted (vendor)	820	PIECE		9		
Chips (vendor)	821	No. 10 PLATE		6		
	821	No. 12 PLATE		7		
	821	PIECE		9		
	821	HEAP		10		
Cassava - boiled (vendor)	822	PIECE		9		
Eggs - boiled (vendor)	823	PIECE		9		
Chicken (vendor)	824	PIECE		9		
Meat (vendor)	825	PIECE		9		
Fish (vendor)	826	PIECE		9		
Mandazi, doughnut (vendor)	827	PIECE		9		
Samosa (vendor)	828	PIECE		9		

APPENDIX C - LIST OF VISITED MARKETS:

Team	Districts	Market 1	Market 2	Market 3
01	Karonga/Chitipa	Karonga main	Chitipa main	Uliwa (Karonga)
02	Rumphi/Nkhata Bay	Rumphi main	Nkhata Bay main	Chintheche (Nkhata Bay)
03	Mzuzu City/Mzimba	Mzuzu City main	Mzimba main	Chindi (Mzimba)
04	Kasungu/Dowa	Kasungu main	Dowa main	Mponela (Dowa)
05	Ntchisi/Nkhotakota	Ntchisi main	Nkhotakota main	Malomo (Ntchisi)
06	Lilongwe Rural/Mchinji	Mitundu (for Lilongwe Rural main)	Msundwe (Lilongwe Rural)	Kamwendo (Mchinji)
07	Lilongwe City/Mchinji	Lilongwe City main	Mchinji main	Chisapo 2 (Lilongwe City)
08	Dedza/Salima	Dedza main	Salima main	Chimbiya (Dedza)
09	Ntcheu/Balaka	Ntcheu main	Balaka main	Lizulu (Ntcheu)
10	Mangochi/Machinga	Mangochi main	Liwonde (for Machinga main)	Namwera (Mangochi)
11	Zomba City/Zomba Rural	Zomba City main	Thondwe (for Zomba Rural main)	Jali (Zomba Rural)
12	Blantyre Rural/Chiradzulu	Lunzu (Blantyre Rural main)	Mbulumbuzi (for Chiradzulu main)	Chazunda (Blantyre Rural)
13	Blantyre City/Thyolo	Blantyre City main	Thyolo main	Bvumbwe (Thyolo)
14	Mulanje/Phalombe	Chitakali (for Mulanje main)	Migowi (for Phalombe main)	Mkando (Mulanje)
15	Mwanza/Neno	Mwanza main	Neno main	Kunenekude (Mwanza)
16	Chikwawa/Nsanje	Chikwawa main	Nsanje main	Nchalo (Chikwawa)

APPENDIX D - REGIONAL MEAN ITEM UNIT CONVERSION FACTORS:

		Regional Mean in KG				
IHS3 Item Code	Item Name and Type	Unit Code	Unit Description	North Region	Central Region	South Region
Cereals, Grains, and Cereal Products						
101	Maize ufa mgaiwa (normal flour)	4	Pail (small)	1.93	5.13	5.15
		4A	Pail (small)	1.93	5.13	5.15
		4B	Pail (medium)	13.72	13.72	13.72
		4C	Pail (large)	15.19	15.19	15.19
		5	Pail (large)	15.19	15.19	15.19
		7	No.12 Plate	0.35	0.31	0.30
		21	Basin	2.95	2.10	3.81
102	Maize ufa refined (fine flour)	4	Pail (small)	1.83	5.02	3.11
		4A	Pail (small)	1.83	5.02	3.11
		4B	Pail (medium)	13.74	13.74	13.74
		4C	Pail (large)	15.19	15.19	15.19
		5	Pail (large)	15.19	15.19	15.19
		7	No.12 Plate	0.33	0.27	0.24
		21	Basin	7.76	7.76	7.76
103	Maize ufa madeya (bran flour)	4	Pail (small)	1.64	1.64	1.64
		4A	Pail (small)	1.64	1.64	1.64
		4B	Pail (medium)	11.38	11.38	11.38
		4C	Pail (large)	17.67	17.67	17.67
		5	Pail (large)	17.67	17.67	17.67
104	Maize grain (not as ufa)	4	Pail (small)	4.38	4.47	4.26
		4A	Pail (small)	4.38	4.47	4.26
		4B	Pail (medium)	9.19	8.41	6.77
		4C	Pail (large)	18.49	16.46	17.60
		5	Pail (large)	18.49	16.46	17.60
		6	No.10 Plate	0.20	0.20	0.20
		7	No.12 Plate	0.33	0.26	0.37
		16	Cup	0.30	0.30	0.30
		21	Basin	4.05	4.65	3.67
105	Green maize	9	Piece	0.38	0.33	0.34
		9A	Piece (small)	0.24	0.19	0.24
		9B	Piece (medium)	0.38	0.33	0.34
		9C	Piece (large)	0.53	0.42	0.39
106	Rice	4	Pail (small)	2.48	2.48	2.48
		4B	Pail (medium)	5.88	5.88	5.88
		6	No.10 Plate	0.13	0.19	0.20
		7	No.12 Plate	0.34	0.32	0.25
		16	Cup	0.62	0.52	0.42
		21	Basin	4.20	0.96	1.78
107	Finger millet (mawere)	6	No.10 Plate	0.20	0.09	0.11
		7	No.12 Plate	0.35	0.21	0.12
		16	Cup	0.25	0.25	0.25
		21	Basin	4.58	3.54	2.50
108	Sorghum (mapira)	6	No.10 Plate	0.16	0.11	0.17
		7	No.12 Plate	0.21	0.11	0.25
		21	Basin	2.17	2.17	2.17
109	Pearl millet (mcchewere)	4	Pail (small)	3.87	3.87	3.87
		4B	Pail (medium)	10.27	10.27	10.27
110	Wheat flour	9	Piece	1.01	0.91	1.01
111	Bread	9	Piece	0.56	0.54	0.59
112	Buns, scones	9	Piece	0.14	0.09	0.10
113	Biscuits	9	Piece	0.14	0.15	0.14
		22	Satchet/tube	0.14	0.17	0.23
114	Spaghetti, macaroni, pasta	9	Piece	0.38	0.38	0.40
		22	Satchet/tube	0.39	0.39	0.34

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IHS3 Item Code	Item Name and Type	Unit Code	Unit Description	North Region	Central Region	South Region
Roots, Tubers, and Plantains						
201	Cassava tubers	9	Piece	0.30	0.32	0.36
		9A	Piece (small)	0.13	0.18	0.21
		9B	Piece (medium)	0.30	0.32	0.36
		9C	Piece (large)	0.46	0.56	0.68
		10	Heap	0.98	1.20	1.12
202	Cassava flour	4	Pail (small)	4.01	4.01	4.01
		4A	Pail (small)	4.01	4.01	4.01
		4B	Pail (medium)	10.03	10.03	10.03
		7	No.12 Plate	0.20	0.26	0.21
203	White sweet potato	4	Pail (small)	4.79	4.79	4.79
		4B	Pail (medium)	11.55	11.55	11.55
		9	Piece	0.15	0.10	0.19
		9A	Piece (small)	0.07	0.03	0.10
		9B	Piece (medium)	0.15	0.10	0.19
		9C	Piece (large)	0.34	0.30	0.39
		10	Heap	1.11	1.82	1.26
		10A	Heap (small)	0.70	1.18	0.73
		10B	Heap (medium)	1.11	1.82	1.26
		10C	Heap (large)	2.04	2.86	1.71
204	Orange sweet potato	9	Piece	0.10	0.07	0.21
		9A	Piece (small)	0.04	0.02	0.10
		9B	Piece (medium)	0.10	0.07	0.21
		9C	Piece (large)	0.24	0.19	0.41
		10	Heap	1.16	1.99	1.11
		10A	Heap (small)	0.73	1.16	0.83
		10B	Heap (medium)	1.16	1.99	1.11
		10C	Heap (large)	1.98	3.21	1.72
205	Irish potato	4	Pail (small)	3.01	3.23	4.49
		4A	Pail (small)	3.01	3.23	4.49
		4B	Pail (medium)	9.31	8.24	6.71
		4C	Pail (large)	18.02	19.62	17.36
		5	Pail (large)	18.02	19.62	17.36
		10	Heap	1.01	0.97	0.87
		21	Basin	6.65	6.97	5.36
206	Potato crisps	9	Piece	0.03	0.03	0.03
		22	Satchet/tube	0.03	0.08	0.04
207	Plantain, cooking banana	8A	Bunch (small)	1.68	1.55	1.36
		8C	Bunch (large)	9.42	9.42	9.42
		9	Piece	0.12	0.12	0.12
208	Cocoyam (masimbi)	9	Piece	0.74	0.61	0.99
		10	Heap	1.25	1.25	1.25
Nuts and Pulses						
301	Bean, white	6	No.10 Plate	0.13	0.12	0.16
		7	No.12 Plate	0.27	0.23	0.30
		16	Cup	0.48	0.48	0.48
302	Bean, brown	6	No.10 Plate	0.15	0.15	0.15
		6A	No.10 Plate (flat)	0.13	0.10	0.12
		6B	No.10 Plate (heaped)	0.23	0.13	0.16
		7	No.12 Plate	0.24	0.23	0.23
		16	Cup	0.31	0.32	0.41
		21	Basin	4.09	4.09	4.09
303	Pigeonpea (nandolo)	6	No.10 Plate	0.13	0.13	0.13
		6A	No.10 Plate (flat)	0.08	0.10	0.07
		6B	No.10 Plate (heaped)	0.13	0.29	0.11
		7	No.12 Plate	0.32	0.32	0.32
		16	Cup	0.42	0.42	0.42
		21	Basin	7.11	7.11	7.11

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IHS3 Item Code	Item Name and Type	Unit Code	Unit Description	North Region	Central Region	South Region
304	Groundnut	4	Pail (small)	4.08	4.08	4.08
		6	No.10 Plate	0.11	0.11	0.11
		6A	No.10 Plate (flat)	0.09	0.09	0.08
		6B	No.10 Plate (heaped)	0.13	0.11	0.12
		7	No.12 Plate	0.25	0.17	0.22
		10	Heap	0.05	0.05	0.05
		16	Cup	0.31	0.36	0.32
		21	Basin	0.93	0.93	0.93
305	Groundnut flour	6	No.10 Plate	0.07	0.07	0.07
		6A	No.10 Plate (flat)	0.06	0.08	0.05
		6B	No.10 Plate (heaped)	0.06	0.09	0.08
		7	No.12 Plate	0.23	0.13	0.16
		16	Cup	0.45	0.45	0.45
306	Soyabean flour	6	No.10 Plate	0.19	0.27	0.12
		7	No.12 Plate	0.23	0.26	0.30
307	Ground bean (nzama)	6	No.10 Plate	0.14	0.10	0.15
		7	No.12 Plate	0.24	0.20	0.18
		16	Cup	0.48	0.48	0.48
308	Cowpea (khobwe)	6	No.10 Plate	0.14	0.12	0.15
		7	No.12 Plate	0.24	0.24	0.27
		10	Heap	0.17	0.17	0.17
		16	Cup	0.41	0.42	0.39
Vegetables						
401	Onion	8	Bunch	0.25	0.31	0.29
		8A	Bunch (small)	0.10	0.14	0.13
		8B	Bunch (medium)	0.25	0.31	0.29
		8C	Bunch (large)	0.46	0.55	0.55
		9	Piece	0.06	0.08	0.09
		9A	Piece (small)	0.04	0.05	0.03
		9B	Piece (medium)	0.06	0.08	0.09
		9C	Piece (large)	0.14	0.13	0.14
		10	Heap	0.80	0.80	0.80
402	Cabbage	9	Piece	1.19	1.79	1.22
		9A	Piece (small)	0.80	1.09	0.86
		9B	Piece (medium)	1.19	1.79	1.22
		9C	Piece (large)	1.95	2.48	1.75
403	Tanaposi/Rape	8	Bunch	0.35	0.42	0.28
		8A	Bunch (small)	0.11	0.17	0.16
		8B	Bunch (medium)	0.35	0.42	0.28
		8C	Bunch (large)	0.54	0.55	0.48
		10	Heap	0.35	0.44	0.17
404	Nkhwani	8	Bunch	0.16	0.25	0.27
		9	Piece	0.03	0.03	0.03
		10	Heap	0.40	0.28	0.28
		10A	Heap (small)	0.14	0.11	0.09
		10B	Heap (medium)	0.40	0.28	0.28
		10C	Heap (large)	0.69	0.52	0.66
405	Chinese cabbage	8	Bunch	0.12	0.27	0.25
		10	Heap	0.26	0.26	0.27
407	Gathered wild green leaves	10	Heap	0.40	0.28	0.28
		10A	Heap (small)	0.14	0.11	0.09
		10B	Heap (medium)	0.40	0.28	0.28
		10C	Heap (large)	0.69	0.52	0.66
408	Tomato	9	Piece	0.12	0.11	0.12
		9A	Piece (small)	0.09	0.08	0.08
		9B	Piece (medium)	0.12	0.11	0.12
		9C	Piece (large)	0.17	0.18	0.18
		10	Heap	0.44	0.44	0.49
		10A	Heap (small)	0.22	0.28	0.28
		10B	Heap (medium)	0.44	0.44	0.49

		Regional Mean in KG				
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		10C	Heap (large)	0.72	0.68	0.66
		21	Basin	6.16	6.16	6.16
409	Cucumber	9	Piece	0.77	0.47	0.56
		21	Basin	0.75	1.22	0.59
410	Pumpkin	9	Piece	1.94	1.43	1.63
		9A	Piece (small)	1.51	0.96	1.20
		9B	Piece (medium)	1.94	1.43	1.63
		9C	Piece (large)	2.57	2.39	2.45
411	Okra / Therere	9	Piece	0.08	0.08	0.08
		9A	Piece (small)	0.04	0.04	0.04
		9B	Piece (medium)	0.08	0.08	0.08
		10	Heap	0.11	0.21	0.20
		10A	Heap (small)	0.09	0.14	0.13
		10B	Heap (medium)	0.11	0.21	0.20
		10C	Heap (large)	0.26	0.25	0.32
		16	Cup	0.38	0.38	0.38
413	Mushroom	9	Piece	0.19	0.19	0.19
		10	Heap	0.38	0.36	0.23
Meat, Fish, and Animal Products						
501	Eggs	9	Piece	0.07	0.06	0.06
502	Dried fish	9	Piece	0.21	0.13	0.19
		9A	Piece (small)	0.08	0.05	0.04
		9B	Piece (medium)	0.21	0.13	0.19
		9C	Piece (large)	0.84	0.40	0.36
		10	Heap	0.19	0.19	0.19
		10A	Heap (small)	0.08	0.06	0.06
		10D	Heap (small)	0.08	0.08	0.11
		10B	Heap (medium)	0.28	0.17	0.14
		10E	Heap (medium)	0.25	0.13	0.15
		10C	Heap (large)	1.22	0.21	0.37
		10F	Heap (large)	0.75	0.22	0.19
503	Fresh fish	9	Piece	0.44	0.37	0.41
		9A	Piece (small)	0.35	0.19	0.28
		9B	Piece (medium)	0.44	0.37	0.41
		9C	Piece (large)	0.77	0.71	0.52
		10	Heap	0.34	0.34	0.34
		10A	Heap (small)	0.17	0.29	0.22
		10D	Heap (small)	0.28	0.17	0.22
		10B	Heap (medium)	0.28	0.31	0.33
		10E	Heap (medium)	0.37	0.29	0.44
		10C	Heap (large)	0.79	0.41	0.37
		10F	Heap (large)	0.77	0.42	0.64
508	Chicken	9	Piece	1.68	1.53	1.31
511	Termites, other insects (eg Ngumbi, caterpillar)	6	No.10 Plate	0.07	0.10	0.06
		7	No.12 Plate	0.16	0.11	0.11
		10	Heap	0.06	0.08	0.04
512	Tinned meat or fish	17	Tin	0.18	0.16	0.18
513	Smoked fish	9	Piece	0.26	0.16	0.14
		9A	Piece (small)	0.04	0.04	0.05
		9B	Piece (medium)	0.26	0.16	0.14
		9C	Piece (large)	0.32	0.32	0.32
		10A	Heap (small)	0.07	0.08	0.07
		10B	Heap (medium)	0.16	0.14	0.17
Fruits						
601	Mango	4	Pail (small)	3.78	3.78	3.78
		8	Bunch	1.08	1.08	1.08
		9	Piece	0.18	0.19	0.30
		9A	Piece (small)	0.13	0.11	0.22
		9B	Piece (medium)	0.18	0.19	0.30
		9C	Piece (large)	0.30	0.32	0.67
		21	Basin	2.36	2.36	2.36

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IHS3 Item Code	Item Name and Type	Unit Code	Unit Description	North Region	Central Region	South Region
602	Banana	8	Bunch	0.46	1.14	1.28
		8A	Bunch (small)	0.32	0.71	0.78
		8B	Bunch (medium)	0.46	1.14	1.28
		8C	Bunch (large)	1.18	1.99	2.10
		9	Piece	0.17	0.16	0.18
		9A	Piece (small)	0.09	0.07	0.10
		9B	Piece (medium)	0.17	0.16	0.18
		9C	Piece (large)	0.24	0.26	0.22
603	Citrus ñ naartje, orange, etc.	9	Piece	0.18	0.14	0.22
		21	Basin	0.79	0.52	0.25
604	Pineapple	9	Piece	1.67	0.95	0.94
605	Papaya	9	Piece	1.41	1.29	0.96
606	Guava	9	Piece	0.08	0.09	0.14
		9A	Piece (small)	0.05	0.07	0.08
		9B	Piece (medium)	0.08	0.09	0.14
		9C	Piece (large)	0.09	0.12	0.22
		21	Basin	1.62	0.87	0.50
607	Avocado	9	Piece	0.46	0.41	0.40
608	Wild fruit (masau, malambe, etc.)	9	Piece	0.25	0.19	0.31
609	Apple	9	Piece	0.10	0.14	0.12
Milk and Milk Products						
702	Powdered milk	17	Tin	0.45	0.44	0.39
		22	Satchet/tube	0.06	0.04	0.09
703	Margarine - Blue band	17	Tin	0.26	0.36	0.33
		22	Satchet/tube	0.12	0.05	0.25
Sugars, Fats, and Oils						
801	Sugar	6	No.10 Plate	0.12	0.13	0.15
		7	No.12 Plate	0.23	0.24	0.23
		9	Piece	1.02	0.92	1.01
		16	Cup	0.21	0.48	0.34
		22	Satchet/tube	0.66	0.10	0.33
802	Sugar Cane	9	Piece	1.29	0.83	1.15
Spices and Miscellaneous						
810	Salt	6	No.10 Plate	0.20	0.20	0.20
		6A	No.10 Plate (flat)	0.19	0.22	0.21
		6B	No.10 Plate (heaped)	0.17	0.23	0.21
		7	No.12 Plate	0.21	0.40	0.35
		9	Piece	0.96	0.94	0.23
		10	Heap	0.35	0.43	0.29
		16	Cup	0.47	0.58	0.42
		22	Satchet/tube	0.75	0.26	0.28
Cooked Foods from Vendors						
820	Maize - boiled or roasted (vendor)	9	Piece	0.35	0.31	0.32
821	Chips (vendor)	6	No.10 Plate	0.21	0.23	0.22
		7	No.12 Plate	0.32	0.32	0.25
		10	Heap	0.33	0.24	0.28
822	Cassava - boiled (vendor)	9	Piece	0.06	0.16	0.28
823	Eggs - boiled (vendor)	9	Piece	0.07	0.08	0.10
824	Chicken (vendor)	9	Piece	0.10	0.05	0.11
825	Meat (vendor)	9	Piece	0.02	0.02	0.02
826	Fish (vendor)	9	Piece	0.11	0.02	0.09
827	Mandazi, doughnut (vendor)	9	Piece	0.06	0.05	0.10
828	Samosa (vendor)	9	Piece	0.04	0.06	0.05