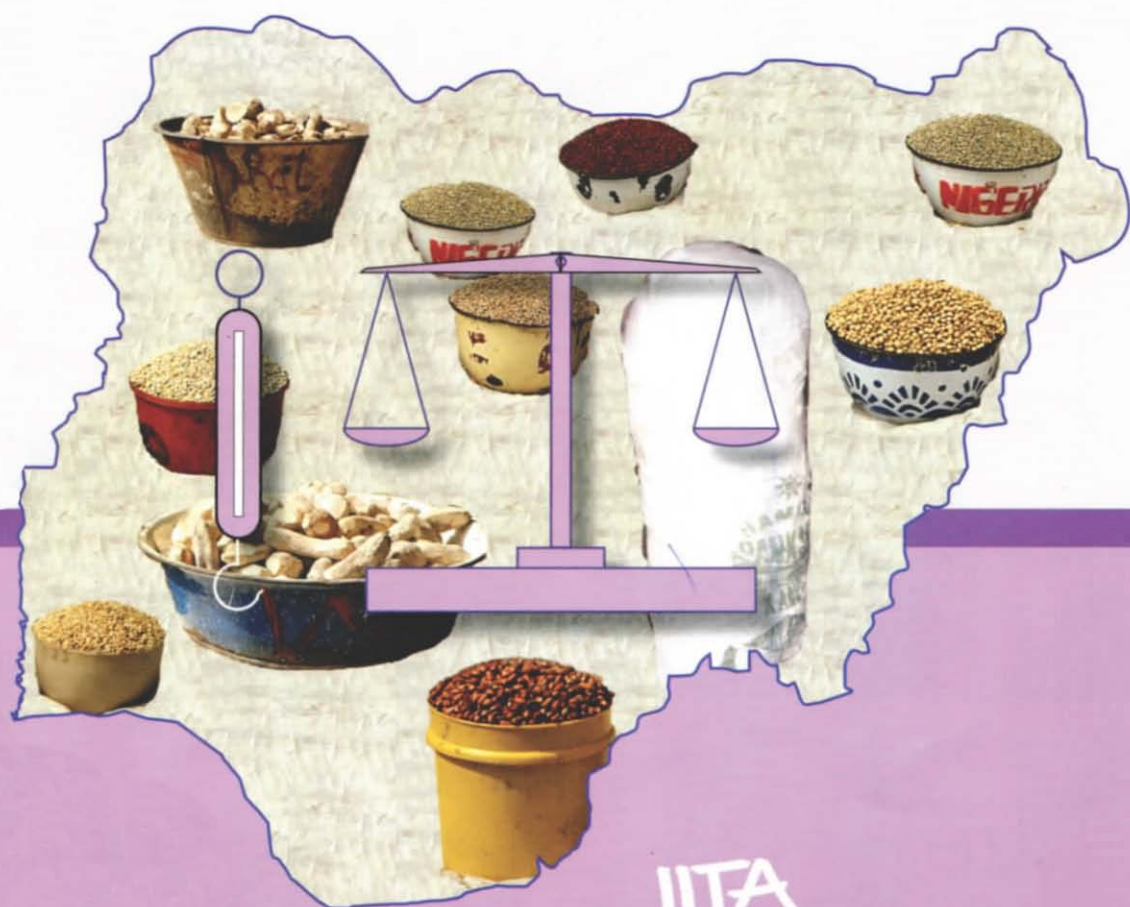


LOCAL WEIGHTS AND MEASURES IN NIGERIA

a handbook of conversion factors

P. Kormawa and A. T. Ogundapo



Local weights and measures in Nigeria: A handbook of conversion factors

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Preface

In Nigeria, farmers and traders sell agricultural commodities using local units of measures. Use of the International System (SI) of units is not common, except in supermarkets. This poses a major constraint to many researchers who may not be familiar with the local measures. The SI units are recognized in most parts of the world and commonly used in reports and scientific publications. However, when local units are used in reports and publications, even within Nigeria, readers not familiar with them have the problem of comprehension. Also, respondents to social and economic survey questionnaires in rural and urban areas provide answers to questions dealing with weights in familiar local units. Even within the country, units of measurements and weights vary across states, most often with different names. Thus, unless the local units are converted to SI units it is impossible to compare weights and even prices of commodities across states.

Faced with this problem, the IITA survey team for the food demand and rural livelihood study decided in 2001 to document major measures used and their conversion to SI units for all major food commodities in Nigeria. This handbook is intended for social scientists and other scientists engaged in rural and market studies, enumerators, and agricultural extension workers. Although we have not covered all the states in Nigeria, we are confident that the sampled states included for this survey provide most of the local measures used in the country and that the handbook will be useful to the intended audience. As you come across new measures, please send them to the authors for inclusion in updated versions of this handbook.

Local weights and measures in Nigeria: A handbook of conversion factors

Methodology

Data collection procedure

A survey of major urban and rural markets was carried out by staff of the International Institute of Tropical Agriculture (IITA) between September 2001 and September 2002. Enumerators collected the local names of common weights and measures in each sampled state. Following this, three major food markets (urban, suburban, and rural) were selected for data collection, except in Kano. There, four were selected due to the specialization of markets.

A purposive sampling technique was used in selecting traders in each market visited for the survey. The number of traders selected from each market for a particular commodity depended on the number of traders selling the commodity, the quantity available for sale, and the cooperation of traders willing to participate in the survey. Thus, the number of sample points for each measure and commodity ranged from three to ten.

Samples of commodities sold by selected traders were measured using the measure obtained from the trader and poured into a polyethylene bag. This was then weighed using a scale calibrated in the metric system. Weight was recorded in kg from each sample point and the average calculated for each commodity.

Specific observations from the survey

Types of local measure

The *mudu* was generally used in the northern states of the country as the local measure for food products. The type of *mudu* used in Kano was twice as big as that found in Kaduna and Abuja. Also, the *mudu* in Taraba State was bigger than that found in Kaduna and Abuja, but not as big as that from Kano. Traders in Kano sometimes use the “Kaduna or Abuja *mudu*” but refer to it as “half *mudu*” or *tiya*. In most cases, the *tiya* is used for consumers who cannot afford to buy the whole *mudu*. This same *mudu* is used by other states from the northwestern of the country, e.g., Katsina, Kebbi, and Zamfara. The same *mudu* found in Taraba is used by other states in the northeastern part of the country, e.g., Borno and Adamawa.

The *milk tin* is the smallest local unit of measure in Kano. This is twice as big as the one used in Kaduna and Abuja. In Kano, a *milk tin* is the empty 410 g milk tin, while in Abuja and Kaduna it is the empty 170 g tin.

Bag was a similar size across states and markets. However, the weight for the same commodity differed, depending on how the grain was bagged. Some traders manipulate the bag such that it accommodates more or less grain than the number of *mudus/kongos/rubbers* expected to be contained in a bag. A bag was also called a sack. Most wholesale grain traders used the 100 kg bag. Only imported rice is packed in 50 kg bags for sale.

Synonymous names used for local measures

Some local measures were described and given more than one name, even within the same locality. The smallest unit of local measure was called *tin*. Some called it *milk tin* while some others called it *cup* or *derica cup* or *derica tin* or *cigarette cup*.

Mudu, *kongo*, and *rubber* were also referred to as *plate*. *Kongo* is the unit of measure commonly used in southwestern Nigeria while *mudu* is the unit of measure in the northern part. *Rubber* is used in Edo State and *painter* in Enugu State. *Painter* is the empty 4-liter paint container.

Plantain and banana were measured in *bunches*, but sometimes called *head*. Other local measures used for plantain and bananas are *piece* (for 1 finger), *fingers*, and *hand* (if the fruits are in a group).

Maize, millet, and guinea corn flour

These three products are maize, millet, and guinea corn grain after being ground. Only maize grain is sold in the powdered form called maize flour. Millet and guinea corn flour are usually not available on the market. Consumers buy the grain and take it to a local miller. The conversion factors of these two food products were obtained from the milling center.

Semovita measures

Semovita is usually bagged in 10 kg plastic bags by the producers. Traders in Kaduna, Kano, and some markets in southwestern Nigeria usually retail it in *mudus* and *kongos*, but this is not done in Abuja, where it can be bought only in 10 kg plastic bags.

Snails

In all the markets visited, snails were found in southwestern and eastern states and Abuja. The conversion factors from Abuja were used for Kaduna and Kano states.

Table 1. Conversion of weights and measures used for cereals in northern states.

Measure/commodity	Kano	Conversion factors for local measures in kg					Means
		Kaduna	Abuja	Jalingo ¹	Kufai ¹	Wukari ¹	
Milk tin							
Rice (local)	0.32	0.17	0.17	0.16	0.16	0.16	0.19 (0.66)
Rice (imported)	0.32	0.17	0.17	0.16	0.16	0.16	0.19 (0.66)
Maize grain	—	—	—	0.15	0.15	0.14	0.15 (0.00)
Guinea corn	—	—	—	0.15	0.15	0.15	0.15 (0.01)
Millet grain	—	0.12	—	0.14	0.15	0.15	0.14 (0.01)
Millet flour	0.32	0.12	0.12	—	—	—	0.19 (0.12)
Mudu							
Rice (local)	2.99	1.54	1.50	2.20	2.10	1.63	1.97 (0.57)
Rice (imported)	2.99	1.54	1.50	2.10	2.07	1.61	1.99 (0.57)
Maize grain	2.44	1.42	1.38	2.03	1.97	1.45	1.78 (0.43)
Guinea corn	2.63	1.42	1.37	2.08	2.05	1.56	1.85 (0.49)
Millet grain	2.63	1.39	1.36	2.02	2.02	1.48	1.82 (0.50)
Maize flour	2.73	1.37	1.33	1.38	1.39	1.10	1.55 (0.59)
Guinea corn flour	2.53	1.02	1.21	—	—	—	1.59 (0.82)
Millet flour	2.67	1.09	1.13	—	—	—	1.63 (0.90)
Semovita	1.65	1.19	1.18	2.08	—	1.38	1.50 (0.38)
Small bag							
Semovita	2.00	2.00	2.00	1.99	—	1.95	1.99 (0.02)
Medium bag							
Rice (local)	50.15	49.23	48.93	—	—	—	49.44 (0.64)
Rice (imported)	50.10	50.00	50.00	49.23	49.9	49.17	49.73 (0.42)
Maize grain	47.82	46.63	44.03	—	—	—	46.16 (1.94)
Guinea corn	50.40	44.85	43.50	—	—	—	46.25 (3.66)
Semovita	10.00	10.00	10.00	9.87	—	—	9.97 (0.07)
Large bag							
Rice (local)	115.00	135.66	139.40	100.40	—	104.97	119.09 (17.70)
Maize grain	98.28	101.25	91.27	95.93	94.33	94.87	95.99 (3.44)
Guinea corn	101.88	103.18	101.50	97.93	99.40	102.53	101.07 (2.00)
Millet grain	104.15	101.65	116.20	95.43	96.27	95.37	101.51 (8.06)

*Values in parenthesis are the standard deviation.

¹Jalingo, Kufai, and Wukari are in Taraba State. Local measures differ from town to town.

Table 2. Conversion of weights and measures used for cereals in southwestern states.

Measure/commodity	Kwara	Conversion factors for local measures in kg					Mean
		Ekiti	Ondo	Osun	Ogun	Oyo	
Milk tin							
Rice (local)	0.18	0.16	0.16	0.15	0.16	0.16	0.16 (0.01)
Rice (imported)	0.17	0.16	0.16	0.16	0.16	0.16	0.16 (0.00)
Maize grain	0.16	0.25	0.15	0.14	0.15	0.14	0.17 (0.04)
Guinea corn	0.17	0.15	0.15	0.14	0.15	0.15	0.15 (0.01)
Millet grain	0.16	0.15	0.13	0.13	0.14	0.14	0.14 (0.01)
Maize flour	—	—	—	—	—	0.11	0.11 (0.00)
Derica cup							
Rice (local)	—	0.82	—	—	—	—	0.82 (0.00)
Rice (imported)	—	0.81	0.76	—	—	—	0.79 (0.04)
Maize grain	—	—	0.67	—	—	—	0.67 (0.00)
Guinea corn	—	0.72	—	—	—	—	0.72 (0.00)
Millet grain	—	0.72	0.68	—	—	—	0.70 (0.03)
Kongo							
Rice (local)	1.74	1.63	1.50	1.53	1.61	1.58	1.60 (0.09)
Rice (imported)	1.71	1.64	1.61	1.60	1.62	1.65	1.64 (0.04)
Maize grain	1.75	1.54	1.42	1.42	1.56	1.45	1.52 (0.13)
Guinea corn	1.61	1.49	1.45	1.42	1.52	1.49	1.50 (0.07)
Millet grain	1.57	1.46	1.36	1.36	1.38	1.48	1.43 (0.08)
Maize flour	—	—	—	—	—	1.13	1.13 (0.00)
Semovita	—	—	—	—	—	1.18	1.18 (0.00)
Kongo (metal)							
Maize grain	—	—	—	—	—	2.56	2.56 (0.00)
Guinea corn	—	—	—	—	—	2.70	2.70 (0.00)
Millet grain	—	—	—	—	—	2.61	2.61 (0.00)
Kobiowu (plastic)							
Rice (local)	1.25	—	—	—	—	—	1.25 (0.00)
Rice (imported)	1.34	—	—	—	—	—	1.34 (0.00)
Maize grain	1.22	—	—	—	—	—	1.22 (0.00)
Guinea corn	1.24	—	—	—	—	—	1.24 (0.00)
Millet grain	1.26	—	—	—	—	—	1.26 (0.00)
Groundnut tin							
Rice (local)	—	30.60	16.10	—	—	—	23.35 (10.25)
Maize grain	—	15.02	13.94	—	—	—	14.48 (0.76)
Guinea corn	—	15.81	14.34	14.30	15.54	—	15.00 (0.79)
Millet grain	—	14.41	13.79	13.77	—	—	13.99 (0.36)

Table 2 continued.

Measure/commodity	Conversion factors for local measures in kg						Means
	Kwara	Ekiti	Ondo	Osun	Ogun	Oyo	
Big plastic bowl (<i>Omolokun</i>)							
Maize grain	—	—	—	—	—	20.50	20.50 (0.00)
Guinea corn	—	—	—	—	—	20.50	20.50 (0.00)
Millet grain	—	—	—	—	—	20.57	20.57 (0.00)
Basin							
Maize grain	—	—	41.10	—	—	—	41.10 (0.00)
Guinea corn	—	—	41.75	—	—	—	41.75 (0.00)
Millet grain	—	—	37.64	—	—	—	37.64 (0.00)
Basket							
Maize grain (unshelled)	—	—	—	—	21.33	—	21.33 (0.00)
Small bag							
Semovita	1.95	1.94	1.96	1.96	1.99	1.99	1.96 (0.02)
Medium bag							
Rice (local)	—	—	40.72	—	—	—	40.72 (0.00)
Rice (imported)	49.23	49.88	48.70	48.98	48.58	49.27	49.11 (0.47)
Maize grain	53.10	54.05	44.02	53.32	60.61	55.23	53.39 (5.37)
Guinea corn	55.68	59.47	—	52.90	—	57.00	56.26 (2.74)
Millet grain	56.50	57.63	—	53.67	—	56.67	56.12 (1.71)
Semovita	9.60	9.75	9.89	9.85	9.87	9.75	9.79 (0.11)
Large bag							
Rice (local)	112.65	—	115.30	107.84	—	96.90	108.17 (8.12)
Maize grain	109.95	100.64	99.80	104.01	113.98	109.43	106.30 (5.69)
Guinea corn	111.30	105.09	99.45	113.55	107.22	118.17	109.13 (6.63)
Millet grain	112.95	101.19	101.49	104.18	96.88	107.57	104.04 (5.62)

*Values in parenthesis are the standard deviation.

Table 3. Conversion of weights and measures used for cereals in southeastern states.

Measure/commodity	Conversion factors for local measures in kg		
	Benin	Enugu	Mean
Milk tin			
Rice (local)	0.17	—	0.17 (0.00)
Rice (imported)	0.18	—	0.18 (0.00)
Maize grain	0.16	—	0.16 (0.00)
Guinea corn	0.16	—	0.16 (0.00)
Millet grain	0.16	—	0.16 (0.00)
Maize flour	—	—	0.17 (0.00)
Cigarette cup			
Rice (local)	0.24	0.28	0.26 (0.03)
Rice (imported)	0.26	0.23	0.25 (0.02)
Maize grain	0.24	0.24	0.24 (0.00)
Guinea corn	0.22	0.23	0.23 (0.01)
Millet grain	0.20	0.22	0.21 (0.01)
Maize Flour	—	0.20	0.20 (0.00)
Semovita	—	0.21	0.21 (0.00)
Rubber			
Rice (local)	2.75 (0.00)	—	2.75 (0.00)
Rice (imported)	2.82 (0.00)	—	2.82 (0.00)
Maize grain	2.58 (0.00)	—	2.58 (0.00)
Guinea corn	2.66 (0.00)	—	2.66 (0.00)
Millet grain	2.47 (0.00)	—	2.47 (0.00)
Painter (plastic)			
Rice (local)	—	3.57	3.57 (0.00)
Rice (imported)	—	4.21	4.21 (0.00)
Maize grain	—	4.03	4.03 (0.00)
Guinea corn	—	4.15	4.15 (0.00)
Millet grain	—	3.99	3.99 (0.00)
Maize flour	—	3.05	3.05 (0.00)
Guinea corn flour	—	3.23	3.23 (0.00)
Groundnut tin			
Rice (local)	—	12.49	12.49 (0.00)
Maize grain	—	14.13	14.13 (0.00)
Guinea corn	—	14.52	14.52 (0.00)
Millet grain	—	13.77	13.77 (0.00)
Basin (Uzokpo)			
Rice (local)	8.03	—	8.03 (0.00)
Maize grain	7.41	—	7.41 (0.00)
Guinea corn	6.90	—	6.90 (0.00)
Millet grain	7.43	—	7.43 (0.00)

*Values in parenthesis are the standard deviation.

Table 3 (continued).

Measure/commodity	Conversion factors for local measures in kg		
	Benin	Enugu	Mean
Small bag			
Semovita	1.97	1.92	1.95 (0.04)
Medium bag			
Rice (local)	49.73	50.10	49.92 (0.26)
Rice (imported)	50.27	49.10	49.69 (0.83)
Semovita	9.90	9.80	9.85 (0.07)
Large bag			
Maize grain	103.20	98.93	101.07 (3.02)
Guinea corn	105.60	104.10	104.85 (1.06)
Millet grain	98.93	100.93	99.93 (1.41)

*Values in parenthesis are the standard deviation.

Table 4. Conversion of weights and measures used for grain legumes in northern states.

Measure/commodity	Kano	Conversion factors for local measures in kg					Means
		Kaduna	Abuja	Jalingo	Kufai	Wukari	
Milk tin (small)							
Cowpea	0.15	0.14	0.14	0.15	0.15	0.15	0.15 (0.01)
Soybean	—	0.14	0.16	0.15	0.15	0.15	0.15 (0.01)
G/nut (shelled)	—	0.13	0.12	0.14	0.14	0.13	0.13 (0.01)
Egusi (shelled)	0.12	0.13	0.10	0.11	0.11	0.10	0.11 (0.01)
Egusi (unshelled)	0.09	0.06	0.09	0.09	0.10	0.09	0.09 (0.01)
Bambara nut	0.17	0.17	0.16	0.15	0.1	0.16	0.10 (0.01)
Soybean flour	0.10	0.10	0.10	—	—	—	0.10 (0.00)
Milk tin (big)							
Cowpea	0.32	—	—	—	—	—	0.32 (0.00)
Soybean	0.20	0.20	0.20	—	—	—	0.20 (0.00)
G/nut (shelled)	0.25	—	—	—	—	—	0.25 (0.00)
Egusi (shelled)	0.24	0.23	0.21	—	—	—	0.23 (0.02)
Egusi (unshelled)	0.18	—	—	—	—	—	0.18 (0.00)
Bambara nut	0.34	—	—	—	—	—	0.34 (0.00)
Soybean flour	0.18	—	—	—	—	—	0.18 (0.00)
Mudu							
Cowpea	2.53	1.35	1.32	1.92	1.92	1.48	1.75 (0.47)
Soybean grain	2.59	1.32	1.31	1.90	1.79	1.48	1.73 (0.49)
Groundnut (shelled)	2.01	1.17	1.16	1.80	1.78	1.33	1.54 (0.37)
Groundnut(unshelled)	1.27	0.62	0.60	1.07	1.08	0.92	0.93 (0.27)
Egusi (shelled)	1.80	1.12	0.93	1.39	1.42	1.08	1.29 (0.31)
Egusi (unshelled)	1.46	0.83	0.79	1.17	1.19	0.92	1.06 (0.26)
Bambara nut	2.90	1.46	1.39	2.02	1.90	1.58	1.88 (0.56)
Soybean flour	1.48	0.82	0.82	—	—	—	1.04 (0.38)
Medium bag							
Cowpea	62.63	62.63	62.63	—	—	—	62.63 (0.00)
G/nut (unshelled)	—	25.72	22.28	—	—	—	24.00 (2.43)
Large bag							
Cowpea (10.01)	105.72	113.17	119.80	96.50	96.97	96.17	104.72
Soybean (17.60)	127.00	128.67	123.30	94.00	92.43	96.93	110.39
G/nut (shelled)	81.92	106.13	102.40	87.23	88.33	90.93	92.82 (9.41)
G/nut (unshelled)	57.77	43.55	41.88	52.17	56.07	53.37	50.80 (6.59)
Egusi (shelled)	—	—	—	65.87	67.53	69.40	67.60 (1.77)
Egusi (unshelled)	—	—	—	54.37	56.07	54.73	55.06 (0.90)
Bambara nut	—	—	—	93.40	93.00	96.80	94.40 (2.09)

*Values in parenthesis are the standard deviation.

Table 5. Conversion of weights and measures used for grain legumes in south-western states.

Measure/commodity	Conversion factors for local measures in kg						Means
	Kwara	Ekiti	Ondo	Osun	Ogun	Oyo	
Milk tin							
Cowpea	0.14	0.14	0.15	0.14	0.14	0.14	0.14 (0.01)
Soybean	0.14	0.15	0.14	0.14	0.15	0.14	0.14 (0.01)
Groundnut (shelled)	0.14	0.13	0.14	0.13	0.13	0.12	0.13 (0.01)
Groundnut (unshelled)	—	—	0.11	—	0.07	—	0.09 (0.02)
Egusi (shelled)	0.11	0.11	0.12	0.11	0.10	0.11	0.11 (0.00)
Egusi (unshelled)	—	0.08	—	0.06	0.07	0.07	0.07 (0.01)
Bambara nut	0.15	—	—	—	—	—	0.15 (0.00)
Soybean flour	—	0.11	0.11	0.11	0.11	0.11	0.11 (0.00)
Egusi flour	0.09	—	0.11	—	0.22	0.11	0.13 (0.06)
Derica cup							
Cowpea	—	0.64	0.65	—	—	—	0.65 (0.01)
Soybean	—	0.73	0.66	—	—	—	0.69 (0.06)
Groundnut (shelled)	—	0.64	0.67	—	—	—	0.65 (0.02)
Egusi (shelled)	—	0.53	0.58	—	—	—	0.55 (0.04)
Kongo (plastic)							
Cowpea	1.58	1.41	1.46	1.37	1.45	1.42	1.45 (0.07)
Soybean grain	1.42	1.51	1.41	1.36	1.47	1.45	1.43 (0.05)
Groundnut (shelled)	—	1.28	1.35	1.30	1.31	1.23	1.29 (0.05)
Groundnut (unshelled)	1.04	0.83	0.89	0.74	0.75	0.89	0.86 (0.11)
Egusi (shelled)	1.08	1.03	1.10	1.03	1.05	1.11	1.07 (0.04)
Egusi (unshelled)	0.67	0.75	0.77	0.63	0.70	0.68	0.70 (0.05)
Bambara nut	—	—	—	—	1.48	—	1.48 (0.00)
Soybean flour	—	1.10	1.02	0.90	1.06	1.13	1.04 (0.09)
Egusi flour	—	—	1.02	—	0.93	1.11	1.02 (0.09)
Kongo (metal)							
Groundnut (shelled)	—	—	—			2.07	2.07 (0.00)
Groundnut (unshelled)	—	—	—			1.58	1.58 (0.00)
Egusi (shelled)	—	—	—		—	1.95	1.95 (0.00)
Egusi (unshelled)	—	—	—	—	—	1.10	1.10 (0.00)
Kobiowu (plastic)							
Cowpea	1.18	—	—	—	—	—	1.18 (0.00)
Soybean	1.16	—	—	—	—	—	1.16 (0.00)
Groundnut (shelled)	1.05	—	—	—	—	—	1.05 (0.00)
Groundnut (unshelled)	0.83	—	—	—	—	—	0.83 (0.00)
Egusi (shelled)	0.82	—	—	—	—	—	0.82 (0.00)
Egusi (unshelled)	0.58	—	—	—	—	—	0.58 (0.00)
Bambara nut	1.14	—	—	—	—	—	1.14 (0.00)
Egusi flour	0.70	—	—	—	—	—	0.70 (0.00)

* Values in parenthesis are the standard deviation.

Table 5 (continued).

Measure/commodity	Conversion factors for local measures in kg						Means
	Kwara	Ekiti	Ondo	Osun	Ogun	Oyo	
Peregi							
Groundnut (shelled)	1.13	—	—	—	—	—	1.13 (0.00)
Paint container							
Cowpea	3.53	—	—	—	—	—	3.53 (0.00)
Big plastic bowl (Omolokun)							
Groundnut (unshelled)	—	—	—	—	—	12.17	12.17 (0.00)
Egusi (unshelled)	—	—	—	—	—	9.50	9.50 (0.00)
Basin							
Cowpea	—	—	42.37	—	—	—	42.37 (0.00)
Soybean	—	—	39.61	—	—	—	39.61 (0.00)
Groundnut (shelled)	—	—	28.15	—	—	—	28.15 (0.00)
Groundnut (unshelled)	—	—	35.90	—	—	—	35.90 (0.00)
Egusi (shelled)	—	—	27.00	—	—	—	27.00 (0.00)
Egusi (unshelled)	—	—	22.27	—	—	—	22.27 (0.00)
Groundnut tin							
Cowpea	—	14.50	13.92	13.60	14.13	14.19	14.07 (0.33)
Soybean	—	14.70	13.91	14.05	14.42	—	14.27 (0.36)
Groundnut (shelled)	—	13.40	13.94	12.97	13.21	12.28	13.16 (0.61)
Groundnut (unshelled)	—	9.30	7.10	8.34	7.63	—	8.09 (0.95)
Egusi (shelled)	—	10.46	12.27	12.97	10.24	—	11.48 (1.34)
Egusi (unshelled)	—	7.87	7.33	6.25	7.02	—	7.12 (0.68)
Medium bag							
Cowpea	53.02	—	54.67	48.02	51.97	43.54	50.24 (4.48)
Soybean	51.93	53.30	—	49.38	—	47.73	50.59 (2.50)
Groundnut (shelled)	—	—	52.38	45.53	—	48.37	48.76 (3.44)
Groundnut (unshelled)	—	—	39.67	—	—	—	39.67 (0.00)
Egusi (shelled)	36.92	40.53	—	37.33	—	—	38.26 (1.98)
Egusi (unshelled)	—	—	36.77	—	22.99	—	29.88 (9.74)
Large bag							
Cowpea	106.05	96.97	106.71	102.84	104.10	91.40	101.35 (5.98)
Soybean	104.55	98.93	102.65	97.67	103.78	96.43	100.67 (3.42)
Groundnut (shelled)	—	84.76	101.31	94.37	93.29	103.80	95.51 (7.49)
Groundnut (unshelled)	53.49	54.27	67.87	51.67	52.08	65.15	57.42 (7.16)
Egusi (shelled)	73.82	71.52	80.37	74.22	77.07	65.27	73.71 (5.14)
Egusi (unshelled)	44.03	45.77	46.30	39.95	52.65	38.90	44.60 (4.97)

*Values in parenthesis are the standard deviation

Table 6. Conversion of weights and measures for grain legumes in southeastern states.

Measure/commodity	Conversion factors for local measures in kg		
	Benin	Enugu	Mean
Milk tin (small)			
Cowpea	0.15	—	0.15 (0.00)
Soybean	0.16	—	0.16 (0.00)
Groundnut (shelled)	0.14	—	0.14 (0.00)
Egusi (shelled)	0.11	—	0.11 (0.00)
Bambara nut	0.17	—	0.17 (0.00)
Soybean flour	0.15	—	0.15 (0.00)
Cigarette cup			
Cowpea	0.20	0.22	0.21 (0.01)
Soybean	0.21	0.24	0.23 (0.02)
Groundnut (shelled)	0.20	0.20	0.20 (0.00)
Egusi (shelled)	0.16	0.19	0.18 (0.02)
Egusi (unshelled)	0.12	0.12	0.12 (0.00)
Bambara nut	0.22	0.26	0.24 (0.03)
Soybean flour	0.20	0.21	0.21 (0.01)
Rubber			
Cowpea	2.51	—	2.51 (0.00)
Soybean grain	2.49	—	2.49 (0.00)
Groundnut (shelled)	2.38	—	2.38 (0.00)
Groundnut (unshelled)	0.92	—	0.92 (0.00)
Egusi (shelled)	1.62	—	1.62 (0.00)
Egusi (unshelled)	1.47	—	1.47 (0.00)
Bambara nut	2.60	—	2.60 (0.00)
Soybean flour	2.40	—	2.40 (0.00)
Painter (plastic)			
Cowpea	—	3.83	3.83 (0.00)
Soybean grain	—	3.75	3.75 (0.00)
Groundnut (shelled)	—	3.37	3.37 (0.00)
Groundnut (unshelled)	—	1.21	1.21 (0.00)
Egusi (shelled)	—	3.00	3.00 (0.00)
Egusi (unshelled)	—	2.18	2.18 (0.00)
Soybean flour	—	3.15	3.15 (0.00)
Bambara nut	—	3.87	3.87 (0.00)

*Values in parenthesis are the standard deviation.

Table 6. Continued

Measure/commodity	Conversion factors for local measures in kg		
	Benin	Enugu	Mean
Groundnut tin			
Cowpea	—	13.73	13.73 (0.00)
Soybean	—	13.10	13.10 (0.00)
Groundnut (shelled)	—	11.79	11.79 (0.00)
Groundnut (unshelled)	—	4.43	4.43 (0.00)
<i>Egusi</i> (shelled)	—	10.47	10.47 (0.00)
<i>Egusi</i> (unshelled)	—	7.67	7.67 (0.00)
Bambara nut	—	13.54	13.54 (0.00)
Basin (<i>Uzokpo</i>)			
Cowpea	7.50	—	7.50 (0.00)
Soybean	6.43	—	6.43 (0.00)
Groundnut (shelled)	7.15	—	7.15 (0.00)
Groundnut (unshelled)	5.52	—	5.52 (0.00)
<i>Egusi</i> (shelled)	4.88	—	4.88 (0.00)
<i>Egusi</i> (unshelled)	4.41	—	4.41 (0.00)
Bambara nut	7.43	—	7.43 (0.00)
Medium bag			
Groundnut (unshelled)	—	38.50	38.50 (0.00)
Large bag			
Cowpea	91.47	108.80	100.14 (12.25)
Soybean	91.10	104.80	97.95 (9.69)
Groundnut (shelled)	91.00	94.33	92.67 (9.69)
Groundnut (unshelled)	49.37	—	49.37 (0.00)
<i>Egusi</i> (shelled)	91.01	83.77	87.39 (5.11)
<i>Egusi</i> (unshelled)	55.87	61.33	58.60 (3.86)
Bambara nut	—	108.30	108.30 (0.00)

*Values in parenthesis are the standard deviation.

Table 7. Conversion of weights and measures for roots and tubers in northern states.

Measure/commodity	Conversion factors for local measures in kg						
	Kano	Kaduna	Abuja	Jalingo	Kufai	Wukari	Means
Heap							
Coco yam tubers/corms	1.40	3.28	1.44	1.03	1.43	1.73	1.72 (0.80)
Sweetpotato	1.96	2.52	6.21	1.51	1.82	1.53	2.59 (1.81)
Cassava tubers	19.22	19.20	19.2	3.10	3.07	6.03	11.64 (8.36)
Piece							
Coco yam tubers/corms	0.10	0.22	0.33	—	—	—	0.22 (0.12)
Irish potato	0.18	0.16	0.15	—	—	—	0.16 (0.02)
Sweetpotato	0.28	0.27	0.33	0.37	0.27	0.37	0.32 (0.05)
Cassava tubers	0.20	0.20	0.20	—	—	—	0.20 (0.00)
Small basket							
Coco yam tubers/corms	3.65	3.66	3.60	—	—	—	3.64 (0.03)
Irish potato	4.41	3.82	2.80	2.73	—	1.87	3.13 (1.00)
Sweetpotato	5.41	5.48	4.62	—	—	—	5.17 (0.48)
Medium basket							
Coco yam tubers							
/corms	—	5.32	—	—	—	—	5.32 (0.00)
Irish potato	7.92	6.67	6.39	—	—	—	6.99 (0.81)
Sweetpotato	7.04	12.84	6.07	—	—	—	8.65 (3.66)
Large basket							
Coco yam tubers/corms	—	11.97	—	—	—	—	11.97 (0.00)
Irish potato	13.61	13.35	13.46	—	—	—	13.47 (0.13)
Sweetpotato	13.17	17.62	8.42	—	—	—	13.07 (4.60)
Heap (small)							
Yam tuber	11.10	5.88	5.46	6.72	8.56	—	7.54 (2.32)
Heap (medium)							
Yam tuber	13.17	8.37	9.31	9.35	—	9.33	9.91 (1.87)
Heap (big)							
Yam tuber	23.35	14.28	16.95	15.40	16.09	16.43	17.08 (3.21)
Tuber (small)							
Yam tuber	2.24	2.94	3.05	1.30	1.28	1.39	2.03 (0.83)
Tuber (medium)							
Yam tuber	2.83	—	—	2.02	1.92	2.28	2.26 (0.41)
Tuber (big)							
Yam tuber	4.76	—	—	3.08	2.99	3.48	3.56 (0.82)
Group (100 tubers)							
Yam tuber	—	—	—	193.03	211.4	200.67	201.70 (9.23)

*Values in parenthesis are the standard deviation.

Table 8. Conversion of weights and measures for roots and tubers in southwestern states.

Measure/commodity	Conversion factors for local measures in kg						Means
	Kwara	Ekiti	Ondo	Osun	Ogun	Oyo	
Piece							
Cocoyam	–	0.24	–	0.14	–	0.23	0.20 (0.06)
Sweetpotato	–	0.33	0.39	0.98	–	0.39	0.52 (0.31)
Cassava tubers	0.90	1.80	1.29	1.14	0.90	1.19	1.20 (0.33)
Basket							
Cassava tubers	–	–	–	28.78	–	16.43	22.60 (8.73)
Heap							
Cocoyam	–	1.01	–	1.01	–	–	1.01 (0.00)
Sweetpotato	–	1.48	–	2.18	–	–	1.83 (0.50)
Cassava tubers	61.60	89.37	174.30	–	100.88	–	106.54 (48.09)
Heap (small)							
Cocoyam	–	–	–	–	–	0.09	0.09 (0.00)
Sweetpotato	–	–	2.98	–	–	1.57	2.27 (1.00)
Heap (medium)							
Cocoyam	–	–	–	–	–	1.77	1.77 (0.00)
Sweetpotato	–	–	6.04	–	–	2.45	4.25 (2.54)
Heap (large)							
Cocoyam	–	–	–	–	–	2.27	2.27 (0.00)
Sweetpotato	–	–	7.53	–	–	3.00	5.26 (3.20)
Bag							
Sweetpotato	–	–	–	–	–	56.83	56.83 (0.00)
Cassava tubers	61.57	–	–	31.23	–	51.15	47.98 (15.41)
Wheel barrow							
Sweetpotato	–	–	132.60	–	–	–	132.60 (0.00)
Cassava tubers	160.87	268.03	348.60	–	99.77	234.06	222.26 (96.14)
Small basket/basin							
Cocoyam tubers/corms	–	–	–	–	–	9.00	9.00 (0.00)
Sweetpotato	–	–	5.33	–	–	5.83	5.58 (0.35)
Medium basket/basin							
Cocoyam	–	–	–	–	–	14.77	14.77 (0.00)
Sweetpotato	–	–	9.37	–	–	8.00	8.68 (0.97)
Large basket/basin							
Cocoyam	–	–	–	–	–	25.17	25.17 (0.00)
Sweetpotato	–	–	15.67	–	–	11.67	13.67 (2.83)

*Values in parenthesis are the standard deviation.

Table 8 (continued).

Measure/commodity	Conversion factors for local measures in kg						Means
	Kwara	Ekiti	Ondo	Osun	Ogun	Oyo	
Heap (small) 5 or 6 tubers							
Yam tuber	5.18	7.63	6.10	6.07	–	6.18	6.23 (0.88)
Heap (medium) 5 or 6 tubers							
Yam tuber	9.10	13.07	8.45	11.77	–	10.80	10.64 (1.90)
Heap (large) 5 or 6 tubers							
Yam tuber	14.28	24.30	15.87	22.10	–	14.53	18.22 (4.66)
Heap (small) 10 or 12 tubers							
Yam tuber	–	–	16.1	–	15.67	–	15.89 (0.30)
Heap (medium) 10 or 12 tubers							
Yam tuber	–	–	30.97	–	33.92	–	32.44 (2.09)
Heap (large) 10 or 12 tubers							
Yam tuber	–	–	59.43	–	69.32	–	64.37 (6.99)
Heap (small) 3 tubers							
Yam tuber	–	–	–	3.87	–	3.84	3.86 (0.02)
Heap (medium) 3 tubers							
Yam tuber	–	–	–	10.17	–	6.48	8.33 (2.61)
Heap (large) 3 tubers							
Yam tuber	–	–	–	13.8	–	8.92	11.36 (3.45)
Tuber (small)							
Yam tuber	0.86	1.37	1.34	1.18	1.34	1.40	1.25 (0.20)
Tuber (medium)							
Yam tuber	1.55	3.00	2.51	2.61	3.00	2.22	2.48 (0.55)
Tuber (large)							
Yam tuber	2.29	5.51	5.37	4.42	6.17	3.16	4.49 (1.50)
Offa/Owo (small)							
Yam tuber	108.13	–	160.40	132.83	154.70	131.63	137.54 (20.85)
Offa/Owo (medium)							
Yam tuber	194.20	–	299.23	297.97	325.90	194.00	262.26 (63.21)
Offa/Owo (large)							
Yam tuber	300.77	–	599.90	484.32	681.60	305.73	474.46 (171.30)
Pick up							
Cassava tubers	2441.67	1670.00	2141.25	1600.50	2005.60	1886.48	1957.58 (311.66)

* Values in parenthesis are the standard deviation

Table 9. Conversion of weights and measures for roots and tubers in southeastern states.

Measure/commodity	Conversion factors for local measures in kg		
	Benin	Enugu	Mean
Heap			
Cocoyam tubers/corms	1.03	—	1.03 (0.00)
Sweetpotato	2.20	—	2.20 (0.00)
Cassava tubers	49.2	—	49.20 (0.00)
Piece			
Cocoyam tubers/corms	0.18	—	0.18 (0.00)
Sweetpotato	0.41	0.34	0.37 (0.05)
Small basket			
Cocoyam tubers/corms	12.65	—	12.65 (0.00)
Heap (small) 3 tubers			
Yam tuber	3.66	—	3.66 (0.00)
Heap (medium) 3 tubers			
Yam tuber	5.80	—	5.80 (0.00)
Heap (large) 3 tubers			
Yam tuber	10.62	—	10.62 (0.00)
Heap (small) 5 tubers			
Yam tuber	—	6.37	6.37 (0.00)
Heap (medium) 5 tubers			
Yam tuber	—	9.90	9.90 (0.00)
Heap (large) 5 tubers			
Yam tuber	—	16	16.00 (0.00)
Tuber (small)			
Yam tuber	1.35	1.38	1.37 (0.02)
Tuber (medium)			
Yam tuber	1.94	2.12	2.03 (0.13)
Tuber (large)			
Yam tuber	3.42	3.68	3.55 (0.18)

* Values in parenthesis are the standard deviation

Table 10. Conversion of weights and measures of processed roots and tubers in southwestern states.

Measure/commodity	Conversion factors for local measures in kg						
	Kwara	Ekiti	Ondo	Osun	Ogun	Oyo	Means
Milk tin							
<i>Gari</i>	0.11	0.14	0.11	0.11	0.12	0.10	0.12 (0.01)
Cassava flour	0.08	0.12	0.09	0.08	—	0.08	0.09 (0.01)
Yam flour	—	—	—	0.11	—	0.10	0.11 (0.01)
Heap/plate (small)							
Yam chips	—	1.60	1.64	—	1.77	—	1.67 (0.09)
Kongo							
<i>Gari</i>	—	1.58	1.00	1.13	1.24	1.08	1.20 (0.23)
Cassava flour	—	1.09	0.88	0.84	1.29	0.83	0.99 (0.20)
Yam flour	—	1.02	1.09	1.15	1.15	1.06	1.09 (0.06)
Cassava chips	1.43	1.07	0.98	0.94	—	1.07	1.10 (0.19)
Yam chips	—	0.92	—	—	—	—	0.92 (0.00)
Kobiowu							
<i>Gari</i>	0.90	—	—	—	—	—	0.99 (0.00)
Cassava flour	0.66	—	—	—	—	—	0.66 (0.00)
Yam flour	0.80	—	—	—	—	—	0.80 (0.00)
Cassava chips	1.05	—	—	—	—	—	1.05 (0.00)
Kongo (metal)							
<i>Gari</i>	—	—	—	—	—	1.90	1.90 (0.00)
Yam flour	—	—	—	—	—	1.79	1.79 (0.00)
Cassava chips	—	—	—	—	—	1.80	1.80 (0.00)
Paint container							
Cassava chips	2.62	—	—	—	—	—	2.62 (0.00)
Groundnut tin							
<i>Gari</i>	17.72	15.73	10.56	11.20	—	9.74	12.99 (3.52)
Cassava flour	12.40	10.90	9.00	8.33	—	7.58	9.64 (1.97)
Cassava chips	—	—	9.45	9.38	—	9.78	9.54 (0.21)
Yam flour	14.33	10.00	10.86	11.63	11.62	8.48	11.15 (1.95)
Yam chips	—	10.28	8.71	—	—	—	9.49 (1.10)
Big plastic bowl (Omolokun)							
<i>Gari</i>	11.87	—	—	—	13.70	15.73	13.77 (1.93)
Cassava flour	—	—	—	—	13.07	11.72	12.40 (0.95)
Yam flour	—	—	—	—	12.78	14.07	13.43 (0.91)

*Values in parenthesis are the standard deviation.

Table 10 (continued).

Measure/commodity	Conversion factors for local measures in kg						Means
	Kwara	Ekiti	Ondo	Osun	Ogun	Oyo	
Medium bag							
<i>Gari</i>	51.20	—	50.37	57.95	60.82	62.67	56.60 (5.58)
Cassava flour	44.33	41.24	—	30.67	57.08	48.47	44.36 (9.69)
Cassava chips	—	—	—	48.48	—	—	48.48 (0.00)
Yam chips	—	—	—	—	—	65.33	65.33 (0.00)
Yam flour	53.30	47.15	—	49.02	34.98	54.13	47.72 (7.69)
Large bag							
<i>Gari</i>	89.00	—	—	114.00	118.11	93.97	103.77 (14.43)
Cassava flour	—	—	61.23	59.80	121.07	—	80.70 (34.97)
Cassava chips	85.37	—	—	109.80	—	92.33	95.83 (12.59)
Yam chips	100.05	98.73	90.93	108.07	99.30	124.00	103.51 (11.42)
Yam flour	100.88	—	76.65	95.85	58.10	95.13	85.32 (17.79)
Basin/basket (small)							
<i>Gari</i>	—	6.87	6.68	—	—	—	6.77 (0.13)
Yam chips	3.86	2.04	—	6.57	3.87	6.88	4.64 (2.05)
Cassava chips	6.10	3.70	3.96	—	—	—	4.59 (1.32)
Basin/basket (medium)							
<i>Gari</i>	—	14.23	14.06	—	—	—	14.15 (0.12)
Yam chips	7.47	5.08	—	10.41	6.67	8.72	7.67 (2.03)
Cassava chips	9.85	7.26	7.40	—	—	9.63	8.53 (1.39)
Basin/basket (large)							
<i>Gari</i>	—	29.13	28.32	—	—	—	28.72 (0.57)
Yam chips	13.70	—	—	17.07	13.50	14.70	14.74 (1.64)
Cassava chips	26.57	20.83	28.33	—	—	19.57	23.83 (4.28)
Cassava flour	—	—	24.25	—	—	—	24.25 (0.00)

*Values in parenthesis are the standard deviation.

Table 11. Conversion of weights and measures of processed roots and tubers in southeastern states.

Measure/commodity	Conversion factors for local measures in kg		
	Benin	Enugu	Mean
Cigarette cup			
<i>Gari</i>	0.18	0.14	0.16 (0.03)
Cassava flour	—	0.15	0.15 (0.00)
Rubber			
<i>Gari</i>	1.81	—	1.81 (0.00)
Cassava flour	1.82	—	1.82 (0.00)
Yam flour	1.89	—	1.89 (0.00)
Cassava chips	1.82	—	1.82 (0.00)
Yam chips	1.92	—	1.92 (0.00)
Painter			
<i>Gari</i>	—	2.90	2.90 (0.00)
Cassava flour	—	2.35	2.35 (0.00)
Cassava chips	—	2.44	2.44 (0.00)
Groundnut tin			
<i>Gari</i>	10.88	9.85	10.37 (0.00)
Cassava flour	11.00	8.80	9.90 (0.00)
Cassava chips	9.84	8.40	9.12 (1.02)
Yam flour	11.34	—	11.63 (0.00)
Yam chips	11.63	—	11.34 (0.00)
Medium bag			
<i>Gari</i>	57.03	56.53	56.78 (0.35)
Yam flour	47.80	—	47.80 (0.00)
Large bag			
Cassava flour	88.00	90.12	89.06 (1.50)
Cassava chips	80.17	85.83	83.00 (4.00)
Yam chips	93.07	—	93.07 (0.00)
Yam flour	90.73	—	90.73 (4.00)

*Values in parenthesis are the standard deviation.

Table 12. Conversion of weights and measures of plantain and banana in northern states.

		Conversion factors for local measures in kg					
Measure/commodity	Kano	Kaduna	Abuja	Jalingo	Kufai	Wukari	Means
Plantain							
Bunch	10.7	8.42	7.46	8.16	8.40	6.98	8.35 (1.28)
Hand	3.26	1.68	3.35	2.97	2.29	2.57	2.69 (0.64)
Piece/finger	0.38	0.25	0.28	0.28	0.30	0.25	0.29 (0.05)
Heap	—	1.61	1.68	—	—	—	1.65 (0.05)
Banana							
Bunch	1.83	7.44	6.48	5.07	4.45	6.52	5.23 (2.01)
Hand	9.30	1.35	1.45	1.23	—	1.38	2.94 (3.56)
Piece/finger	0.14	0.01	0.01	0.14	0.14	0.13	0.10 (0.07)

*Values in parenthesis are the standard deviation

Table 13. Conversion of weights and measures of plantain and banana in south-western states.

Measure/commodity	Kwara	Conversion factors for local measures in kg					Means
		Ekiti	Ondo	Osun	Ogun	Oyo	
Plantain							
Bunch	10.08	7.61	8.13	6.00	6.60	8.11	7.75 (1.42)
Hand	1.75	1.47	1.28	1.95	1.46	1.64	1.59 (0.24)
Piece/finger	0.22	0.26	0.23	0.27	0.27	0.27	0.25 (0.02)
Heap	1.10	1.06	0.65	1.13	1.19	1.69	1.14 (0.33)
Banana							
Bunch	8.31	6.95	6.90	6.62	7.08	5.03	6.81 (1.06)
Hand	1.11	1.13	1.24	0.94	1.08	1.30	1.13 (0.13)
Piece/finger	0.10	0.09	0.17	0.09	0.10	0.13	0.11 (0.03)
Heap	0.52	0.73	1.01	0.64	1.20	1.48	0.93 (0.37)

*Values in parenthesis are the standard deviation

Table 14. Conversion of weights and measures of plantains and banana in south-eastern states.

Measure/commodity	Conversion factors for local measures in kg		
	Benin	Enugu	Mean
Plantain			
Bunch	6.27	8.3	7.29 (1.44)
Hand	1.33	2.2	1.77 (0.62)
Piece/finger	0.2	0.26	0.23 (0.04)
Banana			
Bunch	7.22	5.9	6.56 (0.93)
Hand	1.62	1.4	1.51 (0.16)
Piece/finger	0.12	0.14	0.13 (0.01)

*Values in parenthesis are the standard deviation.

Table 15. Conversion of weights and measures for vegetables in northern states.

Measure/commodity	Kano	Conversion factors for local measures in kg					Means
		Kaduna	Abuja	Jalingo	Kufai	Wukari	
Carrot							
Piece/root/fruit	0.12	0.04	0.05	—	—	—	0.07 (0.04)
Heap	0.57	0.55	0.53	—	—	—	0.55 (0.02)
Garden egg							
Piece/fruit	0.07	0.06	0.04	0.05	0.05	0.13	0.07 (0.03)
Heap	0.51	0.48	0.59	0.29	0.31	0.54	0.45 (0.12)
Tie	—	1.47	1.51	—	—	0.09	1.02 (0.81)
Basket (small)	17.50	—	—	—	—	—	17.50 (0.00)
Basket (medium)	25.30	—	—	—	—	—	25.30 (0.00)
Basket (large)	49.70	—	—	—	—	—	49.70 (0.00)
Cucumber							
Piece	0.22	0.24	0.23	—	—	—	0.23 (0.01)
Heap	1.95	1.99	2.04	—	—	—	1.99 (0.05)
Tomato							
Piece/fruit/number	0.09	0.02	0.02	0.08	0.08	0.08	0.06 (0.03)
Heap	1.12	2.32	2.50	0.34	0.32	0.32	1.15 (1.02)
Basket (small)	1.12	2.32	2.50	4.07	—	4.24	2.85 (1.31)
Basket (medium)	5.83	6.22	5.53	7.57	—	8.27	6.68 (1.18)
Basket (large)	13.60	14.83	13.70	15.22	—	16.10	14.69
(1.06)							
Basket (Extra large)	—	—	—	32.17	—	35.70	33.94
(2.50)							
Plate (small)	—	—	—	0.49	0.51	0.48	0.49 (0.02)
Plate (medium)	—	—	—	1.00	1.31	1.08	1.13 (0.16)
Plate (large)	—	—	—	2.79	3.00	2.83	2.87 (0.11)
Okra (fresh)							
Heap	0.26	0.24	0.27	0.28	0.34	0.28	0.28 (0.03)
Mudu	1.65	0.84	—	—	—	—	1.25 (0.57)
Basket (small)	6.57	—	—	—	—	—	6.57 (0.00)
Basket (medium)	9.90	—	—	—	—	—	9.90 (0.00)
Basket (large)	19.90	22.82	22.82	—	—	—	21.85 (1.69)
Dry okra (chips)							
Milk tin	0.05	—	0.34	0.04	—	0.04	0.12 (0.15)
Milk tin (big)	0.08	0.06	0.04	—	—	—	0.06 (0.02)
Mudu	0.83	0.37	—	0.51	—	0.39	0.53 (0.21)

*Values in parenthesis are the standard deviation.

Table 15 (continued).

Measure/commodity	Conversion factors for local measures in kg						Means
	Kano	Kaduna	Abuja	Jalingo	Kufai	Wukari	
Dry okra (powdered)							
Milk tin	0.18	0.08	0.08	0.08	0.10	0.09	0.10 (0.04)
<i>Mudu</i>	1.57	0.80	0.82	0.98	1.14	0.87	1.03 (0.29)
Onion							
Piece/fruit/number	0.15	0.17	0.19	0.19	0.10	0.20	0.17 (0.04)
Heap	0.50	0.56	0.50	0.26	0.51	0.21	0.42 (0.15)
Basket (small)	1.27	4.42	3.27	—	—	—	2.99 (1.59)
Basket (medium)	3.40	8.28	4.64	—	—	—	5.44 (2.54)
Basket (large)	5.57	16.25	8.83	—	—	—	10.22 (5.47)
Green vegetable							
Bundle	0.62	0.23	0.24	—	—	—	0.36 (0.22)
Water leaf							
Bundle	0.39	0.11	0.13	—	—	—	0.21 (0.16)
Bitter leaf							
Bundle	0.29	0.26	0.34	—	—	—	0.30 (0.04)
<i>Kuka</i>							
<i>Mudu</i>	1.70	1.01	0.97	—	—	—	1.23 (0.41)
Milk tin (big)/Cup	0.22	0.10	0.10	—	—	—	0.14 (0.07)
Milk tin (small)/Cup	0.11	—	—	—	—	—	0.11 (0.00)
<i>Kirkashi</i>							
<i>Mudu</i>	0.48	0.20	0.18	—	—	—	0.29 (0.17)
Ogbono							
Milk tin/Cup	0.11	0.10	0.11	0.22	0.21	0.20	0.16 (0.06)
<i>Mudu</i>	—	—	—	2.86	2.67	1.92	2.48 (0.50)

*Values in parenthesis are the standard deviation.

Table 16. Conversion of weights and measures for vegetables in southwestern states.

Measure/commodity	Kwara	Conversion factors for local measures in kg					Means
		Ekiti	Ondo	Osun	Ogun	Oyo	
Garden egg							
Piece/fruit	0.036	0.026	0.030	0.044	–	0.053	0.038 (0.01)
Heap	0.494	0.281	0.394	0.862	–	0.808	0.568 (0.26)
Tie	–	–		0.440	–	0.388	0.414 (0.04)
Basket (small)	–	–	4.467	–	–	–	4.467 (0.00)
Basket (medium)	–	–	6.233	–	–	–	6.23 (0.00)
Basket (large)	–	–	12.167	–	–	–	12.167 (0.00)
Plate (small)	–	0.464	–	–	–	–	0.464 (0.00)
Plate (medium)	–	0.851	–	–	–	–	0.851 (0.00)
Plate (large)	–	1.860	–	–	–	–	1.860 (0.00)
Tomato							
Piece/fruit/number	0.08	0.08	0.05	0.08	0.05	0.07	0.07 (0.02)
Heap	0.47	0.30	0.20	–	0.29	0.19	0.28 (0.11)
Basket (small)	7.96	6.97	4.06	6.67	7.10	6.73	6.58 (1.32)
Basket (medium)	14.27	14.90	13.72	11.70	11.00	11.33	12.82 (1.67)
Basket (large)	24.97	29.97	39.10	31.73	22.90	39.87	31.42 (7.03)
Plate (small)	0.29	0.68	0.92	0.34	1.23	1.41	0.81 (0.46)
Plate (medium)	1.46	1.45	–	1.54	–	2.55	1.75 (0.54)
Plate (large)	2.57	2.48	–	2.55	–	3.41	2.75 (0.44)
Okra (fresh)							
Heap	0.27	0.09	0.10	0.16	0.08	0.06	0.31 (0.08)
<i>Kongo</i>	–	–	–	–	–	0.56	0.56 (0.00)
Basket (small)	4.03	–	1.68	–	–	–	2.86 (1.67)
Basket (medium)	8.40	–	–	–	–	–	8.40 (0.00)
Basket (large)	17.11	–	–	–	–	–	17.11 (0.00)
Dry okra (chips)							
Milk tin	–	0.05	0.05	–	–	–	0.05 (0.00)
<i>Kongo</i>	0.28	0.30	0.49	0.28	–	0.30	0.33 (0.09)
Dry okra (powdered)							
Milk tin	0.08	–	0.05	0.08	–	0.08	0.07 (0.02)
<i>Tie</i>	0.02	–	–	–	–	–	0.02 (0.00)
<i>Kongo</i>	0.77	–	0.51	–	–	0.79	0.69 (0.16)

*Values in parenthesis are the standard deviation.

Table 16 (continued).

Measure/commodity	Conversion factors for local measures in kg						Means
	Kwara	Ekiti	Ondo	Osun	Ogun	Oyo	
Onions							
Piece/fruit/number	0.09	0.08	0.08	0.08	0.05	0.08	0.08 (0.01)
Heap	0.36	0.31	0.23	0.15	0.24	0.50	0.30 (0.12)
Basket (small)	2.82	—	—	2.29	—	6.27	3.79 (2.16)
Basket (medium)	6.18	—	—	6.07	—	11.40	7.88 (3.05)
Basket (large)	8.40	—	—	13.50	—	15.83	12.58 (3.80)
Plate (small)	0.22	1.01	1.17	0.85	0.80	0.79	0.81 (0.32)
Plate (medium)	0.76	1.69	1.62	—	1.18	1.50	1.35 (0.38)
Plate (large)	1.20	2.45	2.32	—	1.91	2.68	2.11 (0.58)
Bag	—	—	—	—	—	65.00	65.00 (0.00)
Bundle	0.37	0.33	0.37	0.37	0.42	0.74	0.43 (0.16)
Bundle (large)	—	—	—	—	6.47	—	6.47 (0.00)
Basket (small)	—	—	—	—	9.43	9.17	9.30 (0.19)
Basket (medium)	—	—	—	—	18.13	17.13	17.63 (0.71)
Basket (large)	—	—	—	—	21.37	22.42	21.89 (0.74)
Ogbono							
Milk tin/Cup	—	0.14	0.13	0.12	0.11	0.30	0.16 (0.08)
Kongo	—	1.42	1.23	1.17	1.12	1.43	1.27 (0.14)
Kobiowu	0.72	—	—	—	—	—	0.72 (0.00)
Iru (dadawa)							
Ball/Wrap (small)	0.02	0.04	0.02	0.03	0.06	0.03	0.03 (0.01)
Ball/Wrap (large)	—	—	—	—	0.11	—	0.11 (0.00)

*Values in parenthesis are the standard deviation.

Table 17. Conversion of weights and measures for vegetables in southeastern states.

Measure/commodity	Conversion factors for local measures in kg		
	Benin	Enugu	Mean
Garden egg			
Piece/fruit	0.04	0.04	0.04 (0.00)
Heap	0.38	0.41	0.40 (0.02)
Tomato			
Piece/fruit/number	0.06	0.07	0.07 (0.007)
Heap	0.36	0.36	0.36 (0.00)
Basket (small)	4.78	3.83	4.31 (0.67)
Basket (medium)	10.10	8.27	9.18 (1.29)
Basket (large)	17.20	15.20	16.20 (1.41)
Basket (extra large)	38.10	35.17	36.64 (2.07)
Plate (small)	0.16	0.55	0.36 (0.28)
Plate (medium)	0.31	1.13	0.72 (0.58)
Plate (large)	0.59	2.67	1.63 (1.47)
Okra (fresh)			
Heap	0.07	1.17	0.62 (0.78)
Rubber	1.30	—	1.30 (0.00)
Basket (small)	—	2.38	2.38 (0.00)
Basket (medium)	—	6.27	6.27 (0.00)
Basket (large)	—	21.50	21.50 (0.00)
Bag	—	26.85	26.85 (0.00)
Dry okra (chips)			
Cigarette cup	0.18	0.20	0.19 (0.01)
Rubber	2.20	—	2.20 (0.00)
Dry okra (powdered)			
Cigarette cup	0.18	0.12	0.15 (0.04)
Heap	—	0.03	0.03 (0.00)
Rubber	1.30	—	1.30 (0.00)
Onion			
Piece/fruit/number	0.09	0.11	0.10 (0.01)
Heap	0.17	0.35	0.26 (0.13)
Plate (small)	—	1.12	1.12 (0.00)
Plate (medium)	—	1.59	1.59 (0.00)
Plate (large)	—	3.11	3.11 (0.00)
Vegetable			
Bundle	0.27	0.30	0.29 (0.02)
<i>Ogbono</i>			
Cigarette cup	0.20	0.20	0.20 (0.00)
Rubber	3.02	—	3.02 (0.00)
<i>Derica</i> cup	—	0.29	0.29 (0.00)

Table 18. Conversion of weights and measures for meat and meat products in northern states.

northern states.

Measure/commodity	Kano	Conversion factors for local measures in kg					Means
		Kaduna	Abuja	Jalingo	Kufai	Wukari	
Beef							
Piece/number	0.04	0.09	0.03	0.11	0.02	0.02	0.05 (0.04)
Cut (₦150 worth)	—	—	—	0.43	—	—	0.43 (0.00)
Cut (₦200 worth)	1.00	0.5	1.00	—	0.47	0.48	0.69 (0.28)
Cut (₦300 worth)	—	—	—	—	0.60	0.62	0.61 (0.01)
Cut (₦400 worth)	—	—	—	1.05	1.04	1.00	1.03 (0.03)
Cut (₦500 worth)	—	—	—	1.27	1.11	1.27	1.22 (0.09)
Cut (₦600 worth)	—	—	—	1.35	—	—	1.35 (0.00)
Cut (₦800 worth)	—	—	—	1.80	—	1.78	1.79 (0.01)
Fish							
Number/piece	0.31	0.32	0.32	0.36	0.27	0.35	0.32 (0.03)
Heap (3 pieces)	0.69	1.11	0.94	1.33	0.82	1.41	1.05 (0.29)
Carton	—	—	—	22.00	—	21.77	21.89 (0.16)
Smoked fish							
Number/piece	0.1	0.07	0.07	0.19	0.18	0.22	0.14 (0.07)
Heap	0.56	0.43	0.40	0.17	0.15	0.23	0.32 (0.16)
Stick	—	—	—	0.19	0.21	0.21	0.20 (0.01)
Egg							
Number/piece	0.06	0.05	0.06	0.05	0.05	0.05	0.05 (0.01)
Dozen (12 eggs)	0.72	0.71	0.60	0.59	0.60	0.62	0.64 (0.06)
Crate (30 eggs)	1.73	1.68	1.71	1.52	1.54	1.55	1.62 (0.09)
Chicken							
Whole	1.58	1.15	1.13	1.27	—	1.13	1.25 (0.19)
Goat meat							
Number/piece	0.02	0.03	0.03	—	—	—	0.03 (0.01)
Goat head	1.11	1.07	0.95	1.10	—	—	—
Goat leg	0.37	0.54	0.47	—	—	—	0.46 (0.09)
Group (8–12 pieces)	0.19	0.21	0.25	—	—	—	0.22 (0.03)
Neck	—	—	—	0.55	—	0.56	0.56 (0.01)
Tight	—	—	—	1.00	—	1.06	1.03 (0.04)
Crayfish							
Milk tin	0.05	0.02	0.02	0.08	0.07	0.07	0.05 (0.03)
Mudu	0.44	0.24	0.26	0.70	—	0.73	0.47 (0.23)
Snail							
Set (₦450 worth)	2.20	2.20	2.20	—	—	—	2.20 (0.00)
Set (₦390 worth)	1.95	1.95	1.95	—	—	—	1.95 (0.00)
Set (₦300 worth)	1.60	1.60	1.60	—	—	—	1.60 (0.00)
Set (₦150 worth)	1.22	1.22	1.22	—	—	—	1.22 (0.00)

Table 19. Conversion of weights and measures for meat and meat products in south-western states.

Measure/commodity	Conversion factors for local measures in kg						Means
	Kwara	Ekiti	Ondo	Osun	Ogun	Oyo	
Beef							
Piece/Number	0.08	0.07	0.03	–	0.03	0.05	0.05 (0.02)
Cut (N100 worth)	–	–	0.23	–	–	–	0.23 (0.01)
Cut (N150 worth)	–	–	0.31	0.40	0.38		0.36 (0.05)
Cut (N200 worth)	0.62	0.35	0.40	0.52	0.47	0.57	0.48 (0.10)
Cut (N250 worth)	0.73	–	0.54	0.58	–	–	0.62 (0.10)
Cut (N300 worth)	–	0.53	0.56	0.74	0.64	0.62	0.62 (0.08)
Cut (N400 worth)	0.95	0.84	0.81	1.12	–	1.13	0.97 (0.15)
Cut (N450 worth)	–	1.03	–	–	–	–	1.03 (0.00)
Cut (N500 worth)	–	–	1.08	–	–	–	1.08 (0.00)
Cut (N600 worth)	1.42	–	1.28	–	–	–	1.35 (0.09)
Cut (N700 worth)	–	–	–	–	0.96	–	0.96 (0.00)
Cut (N800 worth)	–	–	–	1.63	–	–	1.63 (0.00)
Cut (N1000 worth)	–	–	–	–	1.99	–	1.99 (0.00)
Cut (N2000 worth)	–	–	–	–	4.87	–	4.87 (0.00)
Fish							
Number/piece	0.33	0.22	0.35	0.31	0.31	0.32	0.31 (0.05)
Heap (3 pieces)	1.12	0.73	0.97	1.08	0.84	1.08	0.97 (0.15)
Carton	–	21.48	21.43	21.92	21.27	22.13	21.65(0.36)
Smoked fish							
Number/piece	0.23	0.06	0.11	0.18	0.07	0.08	0.12 (0.07)
Heap	0.32	0.16	0.22	0.25	0.46	0.24	0.27 (0.11)
Stick	0.16	0.21	0.17	0.29	0.25	0.18	0.21 (0.05)
Kongo	–	–	–	–	–	0.56	0.56 (0.00)
Egg							
Number/piece	0.06	0.09	0.09	0.10	0.06	0.06	0.08 (0.02)
Dozen (12 eggs)	0.66	0.69	0.68	0.71	0.75	0.71	0.70 (0.03)
Crate (30 eggs)	1.62	1.77	1.68	1.76	1.84	1.71	1.73 (0.08)
Chicken							
Whole	–	–	1.04	–	1.18	1.16	1.13 (0.08)
Goat meat							
Goat head	0.54	–	–	0.84	–	0.69	0.69 (0.15)
Goat leg	0.24	–	–	0.27	–	0.27	0.26 (0.02)
Thigh	0.94	–	–	1.45	–	1.44	1.28 (0.29)

*Values in parenthesis are the standard deviation.

Table 19 (continued).

Measure/commodity	Conversion factors for local measures in kg						Means
	Kwara	Ekiti	Ondo	Osun	Ogun	Oyo	
Crayfish							
Milk tin	0.05	0.03	0.05	0.04	0.04	0.04	0.04 (0.01)
<i>Kongo</i>	—	0.34	0.24	0.36	0.38	0.36	0.34 (0.05)
<i>Kobiowu</i>	0.33	—	—	—	—	—	0.33 (0.00)
Snail							
Piece/number	0.20	—	0.29	0.37	—	0.21	0.27 (0.08)
Set (group of 4)	0.77	—	1.17	1.53	—	0.78	1.06 (0.36)

*Values in parenthesis are the standard deviation.

Table 20. Conversion of weights and measures for meat and meat products in south-eastern states.

Measure/commodity	Kano	Conversion factors for local measures in kg					Means
		Kaduna	Abuja	Jalingo	Kufai	Wukari	
Evaporated milk							
Small tin	0.17	0.17	0.17	0.17	0.17	0.17	0.17 (0.00)
Big tin	0.41	0.41	0.41	0.41	0.41	0.41	0.41 (0.00)
Powdered milk (bag)							
Milk tin	0.14	0.13	0.09	0.08	—	—	0.11 (0.03)
<i>Mudu</i>	1.05	0.92	0.93	1.04	—	—	0.99 (0.07)
Powdered milk (sachet)							
Tin (small)	0.40	0.40	0.40	0.40	0.40	0.40	0.40 (0.00)
Powdered milk (sachet)							
Sachet (small)	0.008	0.008	0.008	0.008	0.008	0.008	0.008 (0.00)
Sachet (medium)	0.023	0.023	0.023	0.023	0.023	0.023	0.023 (0.00)
Sachet (large)	0.40	0.40	0.40	0.40	0.40	0.40	0.40 (0.00)
Sugar							
Milk tin	—	—	—	0.18	0.18	0.18	0.18 (0.00)
<i>Mudu</i>	3.10	1.67	1.68	2.32	2.26	1.76	2.13 (0.56)

*Values in parenthesis are the standard deviation.

Table 21. Conversion of weights and measures for powdered foods and sugar in northern states.

Measure/commodity	Conversion factors for local measures in kg						Means
	Kano	Kaduna	Abuja	Jalingo	Kufai	Wukari	
Evaporated milk							
Small tin	0.17	0.17	0.17	0.17	0.17	0.17	0.17 (0.00)
Big tin	0.41	0.41	0.41	0.41	0.41	0.41	0.41 (0.00)
Powdered milk (bag)							
Milk tin	0.14	0.13	0.09	0.08	–	–	0.11 (0.03)
<i>Mudu</i>	1.05	0.92	0.93	1.04	–	–	0.99 (0.07)
Powdered tinned milk							
Tin (small)	0.40	0.40	0.40	0.40	0.40	0.40	0.40 (0.00)
Powdered milk (sachet)							
Sachet (small)	0.008	0.008	0.008	0.008	0.008	0.008	0.008 (0.00)
Sachet (medium)	0.023	0.023	0.023	0.023	0.023	0.023	0.023 (0.00)
Sachet (large)	0.40	0.40	0.40	0.40	0.40	0.40	0.40 (0.00)
Sugar							
Milk tin	–	–	–	0.18	0.18	0.18	0.18 (0.00)
<i>Mudu</i>	3.10	1.67	1.68	2.32	2.26	1.76	2.13 (0.56)

*Values in parenthesis are the standard deviation.

Table 22. Value and weights of bread in northern states.

Measure/commodity	Conversion factors for local measures in kg						Means
	Kano	Kaduna	Abuja	Jalingo	Kufai	Wukari	
Loaves (N20 worth)	0.31	0.32	0.27	0.26	0.24	0.26	0.28 (0.03)
Loaves (N40 worth)	0.62	0.65	0.48	0.45	0.44	–	0.53 (0.10)
Loaves (N50 worth)	0.71	0.82	0.76	–	–	–	0.76 (0.06)
Loaves (N60 worth)	–	–	–	0.48	0.64	0.46	0.53 (0.10)
Loaves (N70 worth)	–	–	–	–	–	0.51	0.51 (0.00)
Loaves (N100 worth)	–	–	–	0.61	–	0.71	0.66 (0.07)
Loaves (N120 worth)	–	–	–	0.78	0.80	–	0.79 (0.01)

*Values in parenthesis are the standard deviation.

Table 23. Conversion of weights and measures for powdered foods and sugar in southwestern states.

	Conversion factors for local measures in kg						
Measure/commodity	Kwara	Ekiti	Ondo	Osun	Ogun	Oyo	Means
Evaporated milk							
Small tin	0.17	0.17	0.17	0.17	0.17	0.17	0.17 (0.00)
Big tin	0.34	0.34	0.34	0.34	0.34	0.34	0.34 (0.00)
Condensed milk	0.078	0.078	0.078	0.078	0.078	0.078	0.078 (0.00)
Powdered milk							
Milk tin	0.10	—	0.11	—	—	0.10	0.10 (0.00)
Kongo	1.00	—	0.91	—	—	1.05	0.99 (0.07)
Kobiowu	0.82	—	—	—	—	—	0.82 (0.00)
Tin	0.40	0.40	0.40	0.40	0.40	0.40	0.40 (0.00)
Sachet (small)	0.007	0.007	0.007	0.007	0.007	0.007	0.007 (0.00)
Sachet (medium)	0.02	0.02	0.02	0.02	0.02	0.02	0.02 (0.00)
Sachet (large) <i>Jabala</i>	0.40	0.40	0.40	0.40	0.40	0.40	0.40 (0.00)
Sugar							
Milk tin	0.17	0.17	0.18	0.18	0.17	0.17	0.18 (0.00)
Blue band tin	0.24	—	—	0.24	—	0.24	0.24 (0.00)
Kongo	—	1.76	1.77	1.74	1.72	1.70	1.74 (0.03)
Kobiowu	1.32	—	—	—	—	—	1.32 (0.00)
Packet (cube)	0.474	0.474	0.474	0.474	0.474	0.474	0.474 (0.00)

*Values in parenthesis are the standard deviation.

Table 24. Value and weights of bread in southwestern states.

Measure/commodity	Conversion factors for local measures in kg						Means
	Kwara	Ekiti	Ondo	Osun	Ogun	Oyo	
Loaves (N15 worth)	0.14	0.16	0.24	0.13	–	–	0.17 (0.05)
Loaves (N20 worth)	0.24	–	0.16	0.23	–	0.23	0.22 (0.04)
Loaves (N25 worth)	0.28	0.26	–	–	–	–	0.27 (0.01)
Loaves (N30 worth)	0.30	0.36	0.29	0.36	–	0.31	0.32 (0.04)
Loaves (N40 worth)	–	0.43	0.43	0.45	–	0.44	0.44 (0.01)
Loaves (N60 worth)	–	–	0.65	–	–	0.68	0.66 (0.02)
Loaves (N100 worth)	–	0.83	0.81	–	–	0.81	0.82 (0.01)

*Values in parenthesis are the standard deviation

Table 25. Conversion of weights and measures for powdered foods and sugar in southeastern states.

Measure/commodity	Conversion factors for local measures in kg		
	Benin	Enugu	Mean
Evaporated milk			
Small tin	0.17	0.17	0.17 (0.00)
Big tin	0.41	0.41	0.41 (0.00)
Powdered tinned milk			
Tin (small)	0.40	0.40	0.40 (0.00)
Powdered milk (sachet)			
Sachet (small)	0.008	0.008	0.008 (0.00)
Sachet (medium)	0.023	0.023	0.023 (0.00)
Sachet (large)	0.40	0.40	0.40 (0.00)
Sugar			
Milk tin	0.17	0.11	0.14 (0.04)
Blue band tin	0.25	—	0.25 (0.00)
Cigarette	—	0.25	0.25 (0.00)
Baby milk tin	0.73	—	0.73 (0.00)

*Values in parenthesis are the standard deviation.

Table 26. Value and weights of bread in southeastern states.

Measure/commodity	Conversion factors for local measures in kg		
	Benin	Enugu	Mean
Loaves (N15 worth)	—	0.14	0.14 (0.00)
Loaves (N20 worth)	0.22	—	0.22 (0.00)
Loaves (N25 worth)	—	0.26	0.26 (0.00)
Loaves (N30 worth)	0.26	—	0.26 (0.00)
Loaves (N50 worth)	0.57	0.58	0.58 (0.00)
Loaves (N60 worth)	0.47	—	0.47 (0.00)
Loaves (N80 worth)	—	0.64	0.64 (0.00)
Loaves (N100 worth)	—	1.06	1.06 (0.00)
Loaves (N120 worth)	0.86	1.16	1.01 (0.21)

* Values in parenthesis are the standard deviation

Profile of selected markets

Maps showing the location of markets surveyed are provided as Annex 1. A brief description of the markets by state is provided in the following paragraphs.

Kano State

Yankaba market

Yakaba market is located in the Nassarawa Local Government Area (LGA). It is a daily market dominated by male traders. However, a few women, mostly nonindigenes, were found selling processed food products and condiments. The market has permanent stores. An open-air market area is also available for displaying goods for sale.

Sabon Gari market

This is a daily market located in the Faggae LGA. Here, major commodities on sale include manufactured goods, beverages, secondhand fabrics, and tinned foods. Most of the traders at this market are male. The few women traders were mostly engaged in the sale of second-hand fabrics, footwear, and condiments.

Dawanau market

Dawanau market is located in Dawakitufa LGA and is a permanent market. It is perhaps the largest grain market, not only in Nigeria but also in West Africa. It is a daily wholesale market where grain and other food commodities are traded. Grain is exported from this market to neighboring countries, particularly Cameroon and Niger. Most of the traders at this market are male, with a few women hawking processed food products.

Yanlemo market

Yalemo market is a daily market located in Tarauni LGA in the eastern part of Kano city. It is a major market for fruits, vegetables, and plantain and banana. It is an open-air trading market, though a few lockable, covered stores are available for highly perishable fruit. Retailers and consumers patronize this market.

Kaduna State

Central market

As the name implies, this market is centrally located in Kaduna South LGA. It is a daily market with both men and women trading food and nonfood commodities. The market has permanent structures with lockable stores.

Station market

This market is located in Kaduna South LGA along the road leading to Kakuri and the NNPC refinery area, adjacent to the railway station of Kaduna city. It is a daily open-air market for major food commodities.

Federal Capital Territory Abuja

Wuse New market

Wuse market is situated in Abuja municipal area and serves the community at the Central District of the Federal Capital Territory (FCT). However, there are special markets every ninth day. During these special market days, farmers and traders from suburban areas and villages within the FCT usually bring their products for sale. Consumers from other areas of the FCT also patronize this market during these special market days. Traders (men and women) sell from stores and from the open-air market area.

Gwamgwam market

Gwamgwam market is situated in the northeastern part of Abuja municipal area and serves the community in Gwamgwam area. Like the Wuse market, there is a special ninth day market when farmers and traders from suburban areas and villages within the FCT bring their products for sale. There are permanent stores at the market.

Oyo State

Bodija market

This is the largest and the most popular daily market in Ibadan city. It is a daily wholesale market for both food and nonfood commodities. It is located in Ibadan North LGA. Traders from other parts of the country bring agricultural commodities. In particular those from the north sometimes bring livestock, while those from the east bring roots and tubers for sale. Permanent structures and open air-trading units are common at the marketplace.

Odo-Oba market

This market is situated in Ogo-Oluwa LGA of Oyo State. It is a prominent daily market where farmers bring their products and is usually patronized by traders from Ilesha, Lagos, Sagamu, Ede, Ijebu Ode, Ibadan, and Oyo. Both men and women traders participate in the sale of different food and nonfood commodities at this market.

Kwara State

Ago market

Situated in the western part of Ilorin West LGA, Kwara State, Ago market is a prominent central market in Ilorin. It is a daily market and receives patronage from Kisi, Igboho, Ila, and Igbeti, which are towns in Oyo and Osun states. Permanent stores and open-air

spaces for trading are available. Male and female traders are involved in the sale of food and nonfood commodities.

Ganmo market

Ganmo market is a periodic market that meets every five days. It is located in Ifelodun LGA. It is a rural farmers' market patronized by male and female traders from the city and Osi, Laduba, Oro, and Igbominas. Women traders dominate this market and sell food products. Male traders specialize in the sale of livestock, yam, cassava, and fabrics.

Osun State

Olu-Ode market

Olu-Ode market meets daily and is situated in eastern part of Osogbo LGA. It is mainly an agricultural commodity market. Most traders are women, though a few men are found selling beef and smoked fish. Traders from Ife, Ifon, Ilobu, and Erin-Osun usually patronize the market.

Obada market

Obada market is located in Irewole LGA, Ikire, Osun State. It is a periodic market where male and female traders and farmers from Ibadan, Apomu, Ife, Osogbo, Orile Owu Iwo, and Lagos meet every five days to transact business. Farmers from villages within the LGA usually bring their produce for direct sale to consumers and wholesalers. Most traders are women, although a few men are involved in the sale of beef and smoked fish.

Ondo State

Oja-Oba Erekesan market

This market is found in Akure South LGA of Ondo State. It is a daily wholesale market particularly for food and agricultural commodities. Male and female traders from Ado-Ekiti, Ikare, Owo, and Ondo towns usually patronize this market.

Elegbeka market

This market is a 5-day periodic market in Ose LGA of Ondo State. Farmers bring their produce for direct sale to wholesale traders. Women traders sell processed food products, household utensils, and fabrics, while the male traders specialize in the sale of yam, sweet-potato, and plantain. Open stalls and open air trading units are predominant. Wholesalers from Benin, Lagos, Warri, Sapele, Ilesha, and Asaba patronize the market.

Ekiti State

Bisi market

This is the central market in Ado-Ekiti located in Ado LGA of Ekiti State. A wide range of goods, footwear, building materials, electronics, and food commodities are sold. It is a

periodic market that meets every five days, though some stores are open throughout the week for transactions. Women specialize in the sale of food commodities while the men sell other goods. Most traders patronizing this market come from Ikere, Iyin, Ikare, Igede, Ifaki, and Iworoko.

Oja-Oba market, Ifaki-Ekiti

Oja-Oba market in Ifaki-Ekiti is located in Ikole LGA, Ekiti State. It is a periodic market (every nine days) where both male and female traders deal in food and nonfood commodities. The male traders specialize in the sale of secondhand clothing and footwear, the female traders sell fresh food products and canned food items. Traders from Ido, Osi, Ikole, Moba, and Ado town usually patronize this market.

Ogun State

Kuto market

This market is a daily market located in Abeokuta South LGA. However, there is a special market every five days, when farmers from nearby villages bring their wares for direct sale to traders and consumers. Both men and women participate in the sale of different food commodities, footwear, clothing, and domestic utensils. Traders from Lagos, Shagamu, Egbado, and Ibadan patronize the market regularly.

Olodo market

Olodo market is located in Odeda LGA. It is a periodic market that is held every five days. Male and female traders from Lagos, Ibadan, Badagry, and Ijebu-land regularly patronize this market. Most women traders sell processed food commodities, while the men specialize in the sale of roots and tubers and plantain.

Taraba State

Jalingo market

This is a daily market situated in Jalingo LGA within the state capital. Both retail and wholesale traders are found at the market selling both food and nonfood commodities. Most traders are men, though a few women are found selling processed food. Traders from Lau, Bali, Ardo Kola, Gassol, Yorro, and Zing usually patronize the market.

Kazua ATC market

Kazua ATC is a periodic market located in the northern part of Ardo Kola LGA. The market is held every Monday and Friday of the week. It is a rural market, close to the state capital and usually patronized by consumers and wholesale traders from the city, Zunkani, Koma, Mile 6, and other nearby towns and villages. Women mostly trade in agricultural commodities, though some men specialize in the sale of small ruminants, yam, and fabrics.

Old market-Wukari

This market is a daily market situated in Wukari LGA. Men and women are involved in the sale of food and nonfood commodities, household utensils, building materials, and clothing. Male and female traders from within a radius of 35 km bring products for sale or to purchase commodities.

Enugu State

Ogbete market

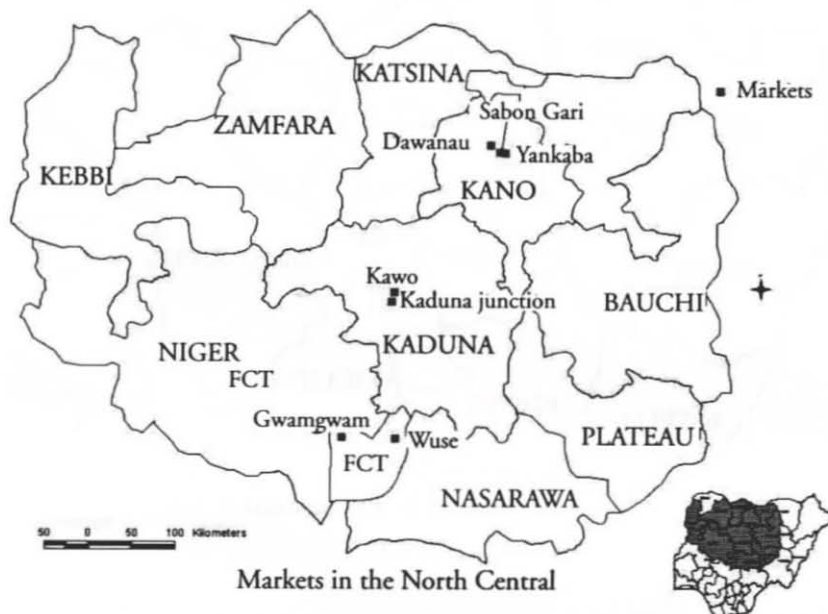
This is a daily market in Enugu, located in Enugu North LGA. Male and female traders sell food and nonfood commodities. Traders from cities within and outside the state regularly patronize this market in particular, from Onitsha, Aguleri, Abakaliki, Ezelo, Aba, and Okwe.

Edo State

New Benin market

The New Benin is a daily market located in Oredo LGA in Edo State. Male and female traders sell food commodities, building materials, secondhand clothing, etc. Retailers from Ekiadolor, Eyaen, Ekoshodin, and Ogbeson usually purchase commodities in bulk for retailing in their respective local markets.

Annex 1. Maps showing location of surveyed markets.



Annex 1. Continued.

