



Zanzibar Consumer Price Index Compilation Procedures and Indices



Office of the Chief Government Statistician

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FORWARD

This publication provides brief guidelines for compiling the Zanzibar Consumer Price Index (ZCPI), explains the method that is used to construct the index number. The prices data for goods and services which are used for developing index are collected under Office of the Chief Government Statistician (OCGS) Act No.9 of 2007. Those prices are collected from the permanent identified outlets in order to monitor the price movement of the selected items.

The purpose of this publication is to elaborate the process on how the OCGS constructs the ZCPI. Moreover, the construction of the ZCPI is a technical exercise, which needed to involve technical stakeholders from the specialized organizations, institutions and individuals without them the exercise would not have succeeded.

The Office of the Chief Government Statistician welcome comments and constructive suggestions on this methodological report, which should be sent to OCGS through e-mail: zanstat@ocgs.go.tz

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List of Abbreviations

EAST AFRITAC	East Africa Technical Assistance Centre
COICOP:	Classification of Individual Consumption by Purpose
CPI	Consumer Price Index
HBS	Household Budget Survey
IMF	International Monetary Fund
NGOs	Non-Governmental Organizations
OCGS	Office of the Chief Government Statistician
ZCPI	Zanzibar Consumer Price Index
ZAWA	Zanzibar Water Authority
ZECO	Zanzibar Electricity Cooperation
VBA	Visual Basic Application

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Chapter One:

Introduction

Zanzibar Consumer Price Index – Compilation Procedures and Indices is the third in the series of Consumer Price Index (CPI) publications. It replaces the previous publications and provides methodological information for compilation of Zanzibar Consumer Price Index. The first publication was published in August 1997 which contained statistical methodology used for compilation of CPI based on CPI weights produced from 1991/1992 Household Budget Survey (HBS). The second was published in July 2014 and the current publication has covered price collection procedures, validation of prices, imputation of missing price, construction of weights and instructions for field agents.

The CPI is an index number measuring the average price of consumer goods and services purchased by households for their final consumption expenditure. The percentage change in the CPI is a measure of inflation rate. (i.e., a measure of how fast the overall level of consumer prices is changing). The CPI can be used to index (i.e., adjust for the effects of inflation) wages, salaries, pensions and regulated or contracted prices.

Inflation can be defined as a persistent rise in the general price level. The opposite of inflation is deflation, a decrease in the general level of prices. Inflation rate is the rate of increase of the average price level (a measure of inflation). Alternatively, the inflation rate is the rate of decrease in the purchasing power of money.

OCGS collects and compiles prices of consumer goods, utilities and services and then produces the index (CPI) on monthly basis. Other related indices compiled in the process are:

- ❖ Annual Inflation: Changes in average prices compared with the preceding 12 months period; this is the average annual inflation considering price movement within the whole year.
- ❖ Month to Month Inflation: Month to month change in prices; this compares prices of the current month on previous month (or inflation)

- ❖ Year on Year Inflation: Change in price over 12 month, this is year on year inflation calculated as a percentage change in prices of current month compared with the same month, a year ago.

The Zanzibar Consumer Price Index (ZCPI) has been developed in accordance with international recommendations and standards. It refers to the consumption pattern of the average household of Zanzibar and it is intended to measure the average change between two time periods in the prices of the consumer goods and services acquired by households (the market basket). However, the households' use of their own produce, which is common in Zanzibar's population, is included in the weights of the ZCPI although these products are not purchased. The price changes for these products are derived from imputed market prices.

The ZCPI is an important index for estimation of inflation rate in Zanzibar as perceived by households and is a proxy indicator of cost of living. Furthermore, it provides macroeconomic indicator (as a deflator) for general economic and social analysis and policy determination especially monetary policy and for adjusting payments - such as wages, rents, interests and social security benefits. .

The revision of the ZCPI weights depends on availability of consumption-expenditure data. The weights of the revised ZCPI are based on the results of the 2014/2015 HBS and the reference period for price comparison is January 2017. The ZCPI is constructed according to the recommended international standards and classification based on the Classification of Individual Consumption by Purpose (COICOP-HBS)

Office of the Chief Government Statistician (OCGS) compiles the ZCPI with high professional standards and with regular quality assurance in order to ensure the accuracy and reliability of the index.

Scope of Zanzibar Consumer Price Index

The ZCPI covers both Unguja and Pemba islands from which the Zanzibar totals expenditures are derived. The goods and services included in the ZCPI are classified according to COICOP-HBS. The COICOP-HBS provides internationally comparable product codes at six digits level, but allows an additional digit for the coding of local varieties. Food products, such as cassava and sweet potatoes, which are important in most African households, are classified as products under their group of root crops.

Selection of locations (outlets) for collecting prices is at places where volumes of products needed for pricing are available. These are town locations, centres of businesses (e.g. markets), densely populated areas and popular establishments along the line of goods and services to be priced.

Note: The basis of price collection is an outlet; practical pricing is undertaken in permanently selected outlets from which the households make their purchases. For example retail shops or stores, permanent or market stalls and at establishments that provide services (e.g. health and education services providers).

Chapter Two:

Source of Household Expenditure

The fieldwork for the 2014/2015 HBS started in October 2014 and ended in September 2015. A total of 4,555 individual households were interviewed. The same HBS provides the expenditure pattern of households as well as baseline measures for poverty monitoring and evaluation.

The household expenditures were recorded using HBS Form II (i.e. Dwelling, Utilities, Water and Sanitation and Household Expenditure) for the reference expenditure of more than three (3) or equal to months. The survey also recorded daily expenditure using the HBS Household Diary

Weight Structure

The households' expenditure survey results provide the information needed to generate the weights used in the computation of the ZCPI. The weights reflect the total expenditure for all households on various categories of goods and services. Weighting of each product in the basket is a way of expressing the importance of the product. Table 2.1 below shows the weight structure of the new index.

Table 2.1: Structure of 2014/15 HBS Weights

COICOP	Weights
Food and Non-Alcoholic Beverages	43.6
Alcohol Beverages, Tobacco and Narcotics	0.2
Clothing and Footwear	6.9
Housing, Water, Electricity, Gas, and Other Fuels	18.4
Furnishing, Household Equipment and Routine Household Maintenance	5.5
Health	2.1
Transport	9.6
Communication	4.2
Recreation and Culture	1.3
Education	1.9
Restaurants and Hotels	3.9
Miscellaneous Goods and Services	2.3
All Items	100.0

Selection of Products

The products included in the basket of goods and services were selected by their relative importance in the consumption of household, this was taken by proportion (plutocratic) of at least 0.02%. However, few items were taken by a proportion of 0.01% to represent their respective sub group in the COICOP-HBS. The total number of goods and services in the basket are 343 whereby food products are 112 and non-food products are 231. To each product, an expenditure weight was assigned (Appendix I)

In addition, two criteria were also taken into account in selecting items:

- a) Continuous availability of the product in the market
- b) Easy recognition for future pricing.

Selection of Centres and Outlets

A total of 10 centres were allocated in urban areas (in both Unguja and Pemba) and are visited monthly. The allocated Centres in Unguja are Darajani, Mkunazini, Malindi, Mlandege, Mchangani, Mikunguni and Mwanakwerekwe and in Pemba are Chake Chake, and Wete. The outlets were selected based on the assumption and experiences

including volume of products, popularity of the outlet, and expectation of continuous availability of products. The outlet types available in the urban areas of Zanzibar are shops and stalls, which are available in open and super markets. Final selection of an outlet was based on the results of the interview conducted with the shopkeepers. Shopkeepers who were cooperative and confirmed that their outlets will not be closed down in the near future were selected. It is important that a field data collector establishes a friendly relationship with a shopkeeper. However, if a shopkeeper becomes uncooperative over time, a field data collector consults the supervisor for the possibility of replacing the outlet. The prices are being collected from 641 outlets whereby 234 are in Pemba and 407 are in Unguja.

Base Period

The base year of the index reference period for the comparison of prices of the ZCPI is January 2017, which sets the index number to 100. It is the reference point of the index number series. The January 2017 was considered as base year with an assumption that the year was perceived to be politically, economically and socially stable

Chapter Three:

Price Collection Methodology

Data Collection

Data collection is carried out on the second and third weeks (from 10th to 20th) of each month (Table 3.1), which is eleven days of price data collection as reference days for the month. The selected outlets are visited and at least three price quotations of well-defined product specifications are collected for every product listed for price collection. Trained OCGS staffs are recruited as price collectors. Price collection is done under the close supervision of the OCGS senior staff.

Table 3.1: Timetable for Data Collection

Date	Unguja Center	Date	Pemba Center
10	Darajani Market	10	Chake Chake Market
10	Mikunguni Market	10	Wete Market
10	Mwanakwerekwe Market	10	Machomane Market
11	Malindi Center	11	Chake Chake Centre
14	Darajani Center	13	Machomane Centre
15	Mchangani Center	15	Wete Centre
16	Mkunazini Center	16	Chake Chake Centre
17	Mlandege Center	17	Machomane Centre
18	Mikunguni Center	18	Wete Centre
19	Mwanakwerekwe Center	19	Call Backs Wete Centre
20	Call Backs	20	Call Backs Chake/Machomane Centre

Price Collection Procedures

Price collectors are provided with questionnaires containing instruction of the product (Appendix II). In practice, the prices of various types of food and non-food products are obtained from one outlet in each of the three urban markets selected; however, there are few food and non-food products that are collected in other outlets. Prices on house rent are collected on Government Institutions (Wakf House, Kikwajuni, Mombasa and Michenzani apartments each with two rooms). Prices of public utilities (electricity and water) are collected from Zanzibar Electricity cooperation (ZECO) and Zanzibar Water Authority (ZAWA).

For products not sold in standard weights such as starchy root crops, vegetable, fruits, fresh chicken and fish, price collection is done through actual purchase from selected outlets. The purchased products are weighed to derive price of 0.5 kg for some products and 1kg for other products.

For items available in retail outlets which are sold in the form of standard weights, price collectors quote prices of product of specified specifications., If product specifications change, replacement of a similar product is made, taking into account observed changes in specifications, For services such as house rent, transport, domestic servant, fuel and electricity price collection is carried out by quoting from both the public enterprises and private companies.

Treatment of Closed Outlet

(a) If by asking neighbouring price collectors finds out that the outlet is closed for a few days, the price collectors returns to the outlet few days later within the same month to obtain the prices.

(b) If the outlet is closed for a month or more, price collectors will return to visit it when it opens again. The missing price data for the current month will be automatically imputed following the change in prices for the same variety in other outlets. However, if the outlet remains closed for three months or more, price collectors will replace it following the instructions given in (c) below.

(c) If the outlet continues to be closed, the field price collectors should try to locate a similar outlet (same type, size, location, product mix and prices) and propose to introduce it as a replacement. With the approval of the supervisor and following a thorough investigation of item by item matching substitute (see below), a new comparable outlet can be introduced.

Treatment of Missing Item

(a) If the item/variety is temporarily missing (up to maximum of three months for non-seasonal items and up to eight months for seasonal items), the space for the price will be left blank. The price collector is strictly prohibited to quote any estimate for the missing price. The missing price will be automatically imputed in the calculations at the office on the basis of changes in the prices of available items of the same product group. The imputed price will not appear in the price collection form for the coming month as data for the previous month. This will allow for self-correction when the item reappears.

(b) If the item/variety has been discontinued (or has not reappeared after three months), a substitute needs to be found with the help of the shopkeeper. It should be as similar as possible to the previously used item with respect to brand, origin, quality and price. The proposed item and price should be discussed and approved with the supervisor. The new item will be introduced in CPI calculations.

Treatment of Item Change

(a) If there is a change in the quality or content of the variety priced, price collectors needs to determine whether the difference in characteristics do or do not affect the price. In the latter case nothing needs to be done except for a minor change in specifications. But if the change has affected the price, obviously a new variety has appeared and the field agent should try to obtain the price of this variety for the current and the previous period. These prices will then be entered in the file and they will be used to calculate the price change for the current month. This solution is not ideal as it assumes that the difference in price between the new and the old variety is fully explained by the difference in quality. But it is easier to apply than to try to separate the quality difference from the price change for these two varieties.

(b) In general, prices for varieties of different brand, quality, and country of origin should not be directly compared for pricing.

Data Entry Process and Data Submission

The data entry process is carried out accordingly, once the price data collection and supervisor's manual checks have been done. The data are entered into the CPI computation system; field enumerators are responsible to enter data in the computer.

Before submitting the monthly price data to headquarters, the branch office staff in Pemba is instructed to carefully check and correct the data collected in the outlet form. The data are entered on a spreadsheet where items/varieties have their appropriate outlet and COICOP codes. The spreadsheet is submitted to headquarters through e-mail and directly imported into the CPI computation files. The deadline for submitting all the price data is 26th day of each month. The data entry is completed in three days after 20th day of price data collection.

Chapter Four:

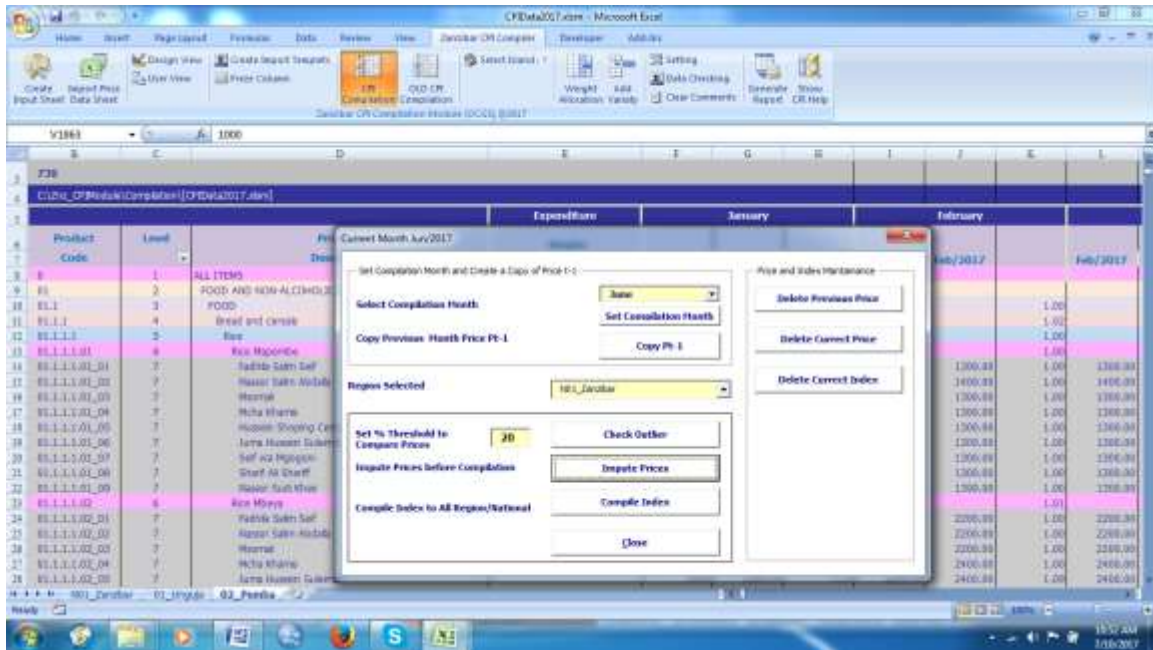
Computation of Consumer Price Index and Inflation Rate

System used for Index Calculation

There is a special module developed in the Microsoft Excel Visual Basic Application (VBA) used to compute all indices. The compiler uses Microsoft Excel as working interface. The methodology of compilation of index is based on Modified Laspeyre's Weighted Index methodology and uses stepwise aggregation from Elementary Aggregate to High Level Indices. The compiler has modules on price importation for specified region, weight importation, imputation of missing prices and index computation.

There are several spread sheets that are used as shown below





Description	Share	Index
All Items CPI	100.00	104.70
Food - combining food consumed at home and food consumed in restaurants	46.65	105.05
Energy and Fuels - Combining Electricity and other Fuels for use at Home with Petrol and Diesel	7.33	106.14
All Items Less Food - (combining food consumed at home and food consumed in restaurants)	53.35	104.39
Food - Food consumed at home	42.73	105.52
Non Food	57.27	104.09
A Core Index - Excludes Energy, fuel, utilities, food crops and other related items	45.11	104.10
Non Core Index	54.89	105.19
Food Crops and Related Items	9.21	118.49
Services	15.26	100.45
Energy, Fuel and Utility	18.42	106.64
Other Goods	72.63	104.79
Tradable	29.59	102.60
Non - Tradable	70.41	105.58
All item Less Food & Energy	46.02	104.11
Fish and Sea Food	6.93	100.47

Index Points and Percentage Change

Movement in index for one period to another can be expressed as a percentage change or changes in index points. The difference between the two approaches to describe movements in indices is shown by the following example:

i). Change in Index Points

All item CPI for December 2015 = 115.4

All item CPI for December 2016 = 123.5

Change in index points is given by:

Change in index points = All item CPI for December 2016 - All item CPI for December 2015

Therefore:

$$\text{Change in index points} = 123.5 - 115.4 = 7.7$$

ii). The Percentage Change

The percentage change in an index between any two periods calculated by subtracting the index value for the earlier period from the later period, and dividing the result by the value for the earlier period then multiplied by 100.

Therefore, percentage change from December 2016 to December 2015 is given by:

$$\text{Percentage Change} = \frac{123.5 - 115.4}{115.4} \times 100 = 6.7\%$$

Analysis: The CPI in December 2016 increased to 123.5 from 115.4 in December 2015 showing an increase of 7.7 index points or 6.7 percent.

Computation of Inflation

Inflation rate is measured by comparing the CPI of the current month with that of the same month a year ago.

$$\text{Inflation Rate} = \frac{CPI_2 - CPI_1}{CPI_1} \times 100$$

Where by

CPI_2 – is the CPI in the current period and CPI_1 – is the CPI in the same period 12 months ago

Appendix 1: Weight of Basket of Goods and Services (2014/15 HBS)

s/n	COICOP	Description	Share	s/n	COICOP	Description	Share
1	01.1.1.1.01	Rice Mapembe	6.185	36	01.1.3.1.08	Shark fish	0.035
2	01.1.1.1.02	Rice Mbeya	1.323	37	01.1.3.1.09	Spine Foot Fish	0.747
3	01.1.1.1.03	Rice Jasmi	0.653	38	01.1.3.1.10	Parrot Fish	0.511
4	01.1.1.1.04	Rice Basmat	0.167	39	01.1.3.2.01	Octopus	0.198
5	01.1.1.2.01	Flate bread	1.862	40	01.1.3.2.02	Ngisi	0.065
6	01.1.1.2.02	Buns	0.113	41	01.1.3.3.01	Dried small Sardines (dagaawakavu)	0.328
7	01.1.1.2.03	Biscuit	0.068	42	01.1.3.4.01	Fish - Canned	0.001
8	01.1.1.2.04	Sweet bread	0.01	43	01.1.4.1.01	Fresh Milk	0.225
9	01.1.1.2.05	Sliced bread	0.022	44	01.1.4.2.01	Low Fat Cow Milk	0.039
10	01.1.1.3.01	Spaghetti	0.333	45	01.1.4.3.01	Powdered Milk (NIDO)	0.022
11	01.1.1.4.01	Cake	0.065	46	01.1.4.4.01	Yoghurt	0.011
12	01.1.1.4.02	Andazi	1.75	47	01.1.4.5.01	Cheese	0.001
13	01.1.1.4.03	Chapati	0.743	48	01.1.4.6.01	Clotted Milk	0.003
14	01.1.1.4.04	Mkate wa Ufuta	0.085	49	01.1.4.7.01	Eggs	0.166
15	01.1.1.6.01	Maize Flour White	1.014	50	01.1.5.1.01	Butter	0.054
16	01.1.1.6.02	Wheat Flour	0.687	51	01.1.5.2.01	Margarine (Blue Band)	0.082
17	01.1.1.6.03	Cerelac	0.005	52	01.1.5.3.01	Olive Oil	0.001
18	01.1.1.6.04	Sorghum Grain	0.014	53	01.1.5.4.01	Sunflower Oil	0.087
19	01.1.1.6.05	Millet flour	0.003	54	01.1.5.4.02	oki	0.552
20	01.1.1.6.06	Wheat grain	0.013	55	01.1.5.4.03	viking	0.055
21	01.1.1.6.07	Cost of Grinding	0.002	56	01.1.6.1.01	Oranges	0.15
22	01.1.2.1.01	Beef With Bones	0.475	57	01.1.6.1.02	Limes	0.25
23	01.1.2.1.02	Beef Without Bones	0.766	58	01.1.6.2.01	Sweet Bananas, Ripe Bananas	0.15
24	01.1.2.1.03	Offal	0.148	59	01.1.6.2.02	Green Cooking Banana	1.091
25	01.1.2.2.01	Goat meat	0.034	60	01.1.6.2.03	Yellow Cooking Banana	0.243
26	01.1.2.4.01	Industrially Frozen chicken	0.3	61	01.1.6.3.01	Apples	0.006
27	01.1.2.4.02	Traditionally Frozen chicken	0.172	62	01.1.6.4.01	Pears	0.006
28	01.1.2.5.01	Dried meat (mishkaki)	0.079	63	01.1.6.5.01	Large Mango (Grafted)	0.263
29	01.1.3.1.01	Sardines	1.871	64	01.1.6.5.02	Small Mango	0.073
30	01.1.3.1.02	King fish	0.149	65	01.1.6.7.01	Coconuts	4.204
31	01.1.3.1.03	Tuna fish	0.291	66	01.1.6.7.02	Pineapple	0.052
32	01.1.3.1.04	Emperors	0.827	67	01.1.6.7.03	Jack Fruit	0.059
33	01.1.3.1.05	Sword Fish	0.159	68	01.1.6.7.04	Pawpaw	0.043
34	01.1.3.1.06	Macskerels	1.701	69	01.1.6.7.05	Water Melon	0.096
35	01.1.3.1.07	Travelly Fish	0.049	70	01.1.6.7.06	Coconuts immature	0.026

s/n	COICOP	Description	Share		s/n	COICOP	Description	Share
71	01.1.6.7.07	Bread fruits	0.256		106	01.1.9.2.02	Cordomon	0.056
72	01.1.6.8.01	Natural Groundnuts (Njugu Mbichi)	0.087		107	01.1.9.2.03	Ginger	0.126
73	01.1.6.9.01	Dates	0.061		108	01.1.9.2.04	Curry Powder	0.065
74	01.1.7.1.01	Sweet Potatoes Vegetables	0.151		109	01.1.9.2.05	Cinnamon	0.032
75	01.1.7.1.02	Cassava Vegetables	0.121		110	01.1.9.2.06	Black Pepper	0.016
76	01.1.7.1.03	Lettuce (mchicha)	0.269		111	01.1.9.2.07	Uzile	0.044
77	01.1.7.2.01	Cabbages	0.016		112	01.1.9.3.01	Yeast	0.031
78	01.1.7.3.01	Pilipili boga	0.098		113	01.2.1.1.01	Coffee, (Instant/Africafe)	0.013
79	01.1.7.3.02	Bitter Tomatoes	0.05		114	01.2.1.2.01	Tea Leaves	0.316
80	01.1.7.3.03	Ladies Fingers/Okra	0.116		115	01.2.1.3.01	Cocoa	0.005
81	01.1.7.3.04	Brinjals, Eggplant	0.295		116	01.2.2.1.01	Drinking waters	0.05
82	01.1.7.3.05	Tomatoes	1.319		117	01.2.2.2.01	Coca Cola	0.048
83	01.1.7.3.06	Cucumber	0.038		118	01.2.2.2.02	Azam (Fursana)	0.141
84	01.1.7.3.07	Pumpkins	0.071		119	01.2.2.3.01	Fruit juices (Anjari)	0.34
85	01.1.7.4.01	Carrots	0.094		120	02.1.1.1.01	Konyagi (Kiroba)	0.006
86	01.1.7.4.02	Round Onions	0.543		121	02.1.3.1.01	Kilimanjaro Beer	0.013
87	01.1.7.4.03	Garlic	0.173		122	02.1.3.1.02	Safari	0.005
88	01.1.7.5.01	Beans Dry (maharagwe makavu)	0.618		123	02.2.1.1.01	Filter Cigarettes (Sportsman)	0.091
89	01.1.7.5.02	Soya Beans (maharagwe ya soya)	0.308		124	02.2.1.1.02	Filter Cigarettes (Sweet Menthol)	0.055
90	01.1.7.5.03	Njugu Mawe	0.113		125	02.2.1.1.03	Non-Filter Cigarettes (Nyota)	0.023
91	01.1.7.5.04	Peas without shells (kunde)	0.139		126	03.1.1.1.01	Satin for women	0.334
92	01.1.7.5.05	Lentils and other pulses (chooko)	0.095		127	03.1.1.1.02	Materials For Mens Trauser (cotton)	0.05
93	01.1.7.6.01	Tin Tomatoes/tomatoes paste	0.222		128	03.1.1.1.03	Materials for children (cotton)	0.154
94	01.1.7.7.01	Irish Potatoes (Mbatata)	0.708		129	03.1.2.1.01	Kanzu	0.238
95	01.1.7.8.01	Cassava, Fresh	1.669		130	03.1.2.1.02	Men's trousers (kitambaa)	0.75
96	01.1.7.8.02	Sweet Potatoes	0.278		131	03.1.2.1.03	Men's shirts long Sleeve	0.544
97	01.1.7.8.03	Cocoyam	0.106		132	03.1.2.1.04	Jerseys	0.035
98	01.1.7.8.04	Yam	0.115		133	03.1.2.1.05	Men's suit	0.035
99	01.1.8.1.01	White Sugar	1.25		134	03.1.2.1.06	Men's underwear	0.105
100	01.1.8.1.02	Brown Sugar	0.296		135	03.1.2.1.07	Jacket	0.016
101	01.1.8.2.01	Honey	0.007		136	03.1.2.2.01	Women's Dishdasha	0.904
102	01.1.8.2.02	Pineapple Jam	0.007		137	03.1.2.2.02	Women's nyanya pense	0.122
103	01.1.8.3.01	Confectionery products (peremende)	0.07		138	03.1.2.2.03	Women's underwear	0.089
104	01.1.8.4.01	Ice Cream	0.404		139	03.1.2.2.04	Bra	0.035
105	01.1.9.2.01	Salt	0.168		140	03.1.2.2.05	Women's shirts	0.052

s/n	COICOP	Description	Share		s/n	COICOP	Description	Share
141	03.1.2.2.06	Blouses	0.052		176	03.2.1.3.03	Babies' shoes (up to 2 years)	0.023
142	03.1.2.2.07	Kitenges	0.041		177	03.2.2.1.01	Repairs to shoes	0.001
143	03.1.2.2.08	Women's Traditional Dress (Baibui)	0.23		178	04.1.1.1.01	Actual Paid Rent	0.693
144	03.1.2.2.09	Jeans	0.015		179	04.2.1.1.01	Imputed rentals of owner-occupiers	8.745
145	03.1.2.3.01	Children's shirt	0.107		180	04.3.1.1.01	Paint	0.127
146	03.1.2.3.02	Girl Blouses	0.107		181	04.3.1.1.02	Cement	0.061
147	03.1.2.3.03	Sweaters	0.107		182	04.3.1.1.03	Tap	0.045
148	03.1.2.3.04	Children's trousers	0.304		183	04.3.1.1.04	Switch	0.09
149	03.1.2.3.05	Girl Dresses	0.304		184	04.3.1.1.05	Tiles	0.516
150	03.1.2.3.06	Children's pyjamas	0.036		185	04.3.2.1.01	Painting	0.085
151	03.1.2.3.07	Girls Pants	0.036		186	04.3.2.1.02	Replacement of Tap	0.016
152	03.1.2.3.08	Children Socks	0.036		187	04.3.2.1.04	Replacement of Switch	0.033
153	03.1.2.3.09	Babies garments (under 2 years)	0.074		188	04.3.2.1.05	Tiles for sq meter	0.184
154	03.1.2.3.10	Dipers-Pampas	0.074		189	04.4.1.1.01	Monthly Water Bill	0.408
155	03.1.2.3.11	Children's school uniform (Shirts)	0.044		190	04.4.2.1.01	Sewerage Collection	0.087
156	03.1.2.3.12	Children's school uniform (Skirt)	0.044		191	04.5.1.1.01	Electricity	2.641
157	03.1.2.3.13	Children's school uniform (Trouser)	0.044		192	04.5.2.1.01	Town Gas	0.146
158	03.1.2.3.14	Children's sports garments (Jersey)	0.019		193	04.5.3.1.01	Kerosene	1.069
159	03.1.2.3.15	Children's Tradional Dress (Baibui)	0.047		194	04.5.4.1.01	Charcoal	1.848
160	03.1.3.1.01	Khangas	0.27		195	04.5.4.1.02	Firewood	1.621
161	03.1.3.1.03	Hats	0.116		196	05.1.1.1.01	Table & Chair	0.058
162	03.1.3.1.04	Belt	0.116		197	05.1.1.1.02	Simple Single Bed	0.467
163	03.1.4.1.01	Tailoring Charges Mens Trousers	0.003		198	05.1.1.1.03	Cupboards	0.303
164	03.1.4.1.02	Tailoring Charges Womens Dress	0.022		199	05.1.1.1.04	Sofas	0.072
165	03.1.4.1.03	Tailoring New Clothes For Children	0.006		200	05.1.1.1.05	Toilent Sink	0.031
166	03.2.1.1.01	Men's Boots	0.027		201	05.1.2.1.01	Carpets	0.124
167	03.2.1.1.02	Training shoes	0.027		202	05.2.1.1.01	Mattress	0.357
168	03.2.1.1.03	Mens Sandals	0.165		203	05.2.1.1.02	Mosquito Nets	0.054
169	03.2.1.1.04	Closed Sandals	0.165		204	05.2.1.1.03	Bed Sheets	0.364
170	03.2.1.1.05	Slippers for men (kanda mbili)	0.071		205	05.2.1.1.04	Towels	0.03
171	03.2.1.2.01	Footwear for women - Boots	0.296		206	05.2.1.1.05	Curtains	0.05
172	03.2.1.2.02	Sandals	0.019		207	05.2.1.1.06	Pillow without case	0.002
173	03.2.1.2.03	Slippers for women (kanda mbili)	0.059		208	05.3.1.1.01	Refrigerator	0.213
174	03.2.1.3.01	Children's shoes - boots	0.267		209	05.3.1.3.01	Electric Cooker	0.09
175	03.2.1.3.02	Children's shoes for school	0.051		210	05.3.1.3.02	Charcoal stove	0.043

s/n	COICOP	Description	Share		s/n	COICOP	Description	Share
211	05.3.1.4.01	Air Conditioners	0.017		246	06.1.1.1.05	Antibiotic Ampicyline	0.042
212	05.3.1.5.01	Washing and Drying Machine	0.018		247	06.1.1.1.06	Diclofenac	0.085
213	05.3.1.6.01	Sewing Machines	0.067		248	06.1.1.1.07	Erythromicine	0.108
214	05.3.2.1.01	Fan	0.045		249	06.1.1.1.08	Aswat	0.405
215	05.3.2.1.02	Electric Iron	0.023		250	06.1.2.1.01	thermometers	0.03
216	05.3.2.1.03	Electrical catle	0.01		251	06.1.3.1.01	Blood pressure	0.01
217	05.3.2.1.04	Blander	0.091		252	06.1.3.1.05	Eye-Glasses	0.046
218	05.3.3.1.01	Repair of Blander	0.017		253	06.2.1.1.01	Consultations with Physicians	0.051
219	05.4.1.1.01	Glass	0.02		254	06.2.2.1.01	Dentist (kung'owa)	0.034
220	05.4.1.1.02	Cups	0.229		255	06.2.3.1.01	Medical laboratory findings (Checking Malaria)	0.056
221	05.4.1.1.03	Plates	0.319		256	06.2.3.1.02	Checking Urine	0.056
222	05.4.1.2.01	Spoons	0.036		257	06.2.3.1.03	Checking Sugar	0.056
223	05.4.1.2.02	Knives	0.036		258	06.2.3.2.01	Diagnostic Test (Ultra Sound)	0.171
224	05.4.1.3.01	Cooking pots	0.106		259	06.2.3.2.02	Diagnostic Test (X-rays)	0.171
225	05.4.1.3.02	Thermos Flasks	0.312		260	06.3.1.1.01	Accomodation Services by In patients	0.176
226	05.5.2.1.02	Betri za Radio	0.028		261	07.1.1.2.01	Car purchase Private	1.787
227	05.5.2.1.03	Door Locks	0.007		262	07.1.2.1.01	Motorcycles (Vespa)	0.959
228	05.5.2.1.04	Torches	0.01		263	07.1.3.1.01	Bicycle	0.211
229	05.5.2.1.05	Electric bulbs	0.021		264	07.2.1.1.01	Car Tyre	0.242
230	05.5.2.1.06	Kerosen lamp	0.034		265	07.2.1.1.02	Car batteries	0.217
231	05.5.2.1.09	Panga	0.023		266	07.2.2.1.01	Petrol	2.009
232	05.6.1.1.01	Laundry Soap, Bar (1 Piece)	0.433		267	07.2.2.1.02	Diesel	0.884
233	05.6.1.1.02	Laundry Soap, Powdered	0.768		268	07.2.3.1.01	Oil Change (Price of oil and labour cost)	0.056
234	05.6.1.1.03	HIT	0.017		269	07.2.4.1.01	Fee of Driving license	0.019
235	05.6.1.1.04	Shoe Polish	0.002		270	07.3.2.1.01	School Bus	0.135
236	05.6.1.1.05	Detergents	0.01		271	07.3.2.1.02	Transport by Bus with Town Area	0.481
237	05.6.1.1.07	Water bucket	0.017		272	07.3.2.1.03	Transport by Bus outside Town Area	0.481
238	05.6.1.1.06	Basin plastic	0.015		273	07.3.2.1.04	Transport by Taxis	0.481
239	05.6.1.2.01	Brooms	0.022		274	07.3.3.1.01	Passenger transport by air	0.896
240	05.6.1.2.02	Matches	0.055		275	07.3.4.1.01	Passenger Transport by Sea	0.777
241	05.6.2.1.01	Paid staff in private house (cleaning and cooking)	0.418		276	08.1.1.1.01	Postal Services	0
242	06.1.1.1.01	Panadol	0.268		277	08.2.1.1.01	Nokia (N1280)	0.184
243	06.1.1.1.02	Dawa nyingine za malaria (e.g Dawa mseto n.k)	0.099		278	08.2.1.1.02	Samsung Galaxy 3	0.184
244	06.1.1.1.03	Cough Syrup	0.099		279	08.2.1.1.03	Techno New	0.184
245	06.1.1.1.04	Koflyn	0.107		280	08.3.1.1.01	Calling Off Line	1.828

s/n	COICOP	Description	Share		s/n	COICOP	Description	Share
281	08.3.1.1.02	Calling In line	1.828		316	11.1.1.1.10	Drinking waters	0.091
282	08.3.1.1.05	Internet Services	0.042		317	11.1.1.1.11	Coca cola	0.086
283	09.1.1.1.01	Radio	0.07		318	12.1.1.1.01	Hairdressing salons for men	0.026
284	09.1.1.1.02	Decoder	0.082		319	12.1.1.1.02	Services of beauty saloons	0.031
285	09.1.1.1.03	Ear Phone	0.007		320	12.1.2.1.01	Hairdryers	0.101
286	09.1.1.2.01	Television	0.155		321	12.1.3.1.01	Toilet Soap	0.176
287	09.1.2.1.02	Pastport Size	0.021		322	12.1.3.1.02	Tooth Paste	0.131
288	09.1.3.1.01	Laptop	0.089		323	12.1.3.1.03	Face Cream	0.018
289	09.1.4.1.01	Disc (DVD)	0.045		324	12.1.3.1.04	Hair Cream	0.107
290	09.3.1.1.01	Dolls	0.044		325	12.1.3.1.05	non-electrical razors	0.016
291	09.3.2.1.01	Soccer ball	0.058		326	12.1.3.1.06	Perfumes	0.152
292	09.4.1.1.01	Tickets to sporting shows	0.008		327	12.1.3.1.07	Powder	0.032
293	09.4.2.3.01	Monthly bill of Decoder	0.467		328	12.1.3.1.08	Toilet Paper	0.011
294	09.5.1.1.01	School Books	0.189		329	12.1.3.1.09	Tooth Brush	0.017
295	09.5.2.1.01	newspapers	0.006		330	12.1.3.1.10	Combs	0.018
296	09.5.4.1.01	Ball Point Pens	0.018		331	12.1.3.1.11	Deodorants	0.01
297	09.5.4.1.03	Pencils	0.006		332	12.3.1.1.01	Jewellery	0.393
298	09.5.4.1.05	Exercise book	0.057		333	12.3.1.1.02	Hand Watch	0.034
299	10.1.1.1.01	Pre-Primary Education - Private	0.151		334	12.3.2.1.01	Travel Bags	0.215
300	10.1.1.1.02	Primary Education - Private	0.134		335	12.3.2.1.02	Hand Bags	0.215
301	10.2.1.1.01	Secondary Education	0.561		336	12.3.2.1.03	School Bags	0.215
302	10.3.1.1.01	Certificate	0.11		337	12.3.2.2.01	Sunglasses	0.086
303	10.3.1.1.02	Diploma	0.11		338	12.4.1.1.01	Child care	0.062
304	10.4.1.1.01	Degree Level	0.136		339	12.5.4.1.01	Insurance for motor car	0.076
305	10.5.1.1.01	Fees for vocational course (Hotel Management)	0.02		340	12.5.4.1.02	Insurance for motorcycle	0.023
306	10.5.1.1.02	Courses of computer (Introduction)	0.67		341	12.6.2.1.01	Charges for using mobile banking (Zantel)	0.06
307	11.1.1.1.01	Chips With Eggs	0.768		342	12.6.2.1.02	Charges for using mobile banking (TIGO)	0.06
308	11.1.1.1.02	Rice with beef	0.259		343	12.7.1.1.07	Cost of photocopy	0.008
309	11.1.1.1.03	Ugali with Beef	0.228					
310	11.1.1.1.04	Biriani with Beef	0.13					
311	11.1.1.1.05	Pilau with beef	0.411					
312	11.1.1.1.06	Banana with beef	0.06					
313	11.1.1.1.07	urojo	1.255					
314	11.1.1.1.08	Beef Soup	0.444					
315	11.1.1.1.09	Tea without Milk	0.191					

Appendix II:

Example of Questionnaire for data collection

Outlet Name: Abdalla Shomari

Outlet ID: 5321002

Center ID: 5321

S/n	Item code	Product Name	Unit	Jan-17		Feb-17		Mar-17	
				Price	Weight	Price	Weight	Price	Weight
1	01.1.3.1.02	King fish (Nguru)	1 kg						
2	01.1.3.1.03	Tuna fish (Jodari)	1 kg						
3	01.1.3.1.04	Emperors (Changu)	1 kg						
4	01.1.3.1.05	Sword fish (Nduwaro)	1 kg						
5	01.1.3.1.06	Macskerels (Vibua)	1 kg						
6	01.1.3.1.07	Travelly (kolekole)	1 kg						
7	01.1.3.1.08	Tasi	1 kg						
8	01.1.3.1.09	Pono	1 kg						
9	01.1.3.2.01	Octopus	1 kg						
10	01.1.3.2.02	Ngisi	1 kg						

Table 4.1: Time Series Index

Note:

G1(Food and Non-Alcoholic Beverages), G2(Alcohol Beverages, Tobacco and Narcotics), G3(Clothing and Footwear), G4(Housing, Water, Electricity, Gas, and Other Fuels), G5(Furnishing, Household Equipment and Routine Household Maintenance), G6(Health), G7(Transport), G8(Communication), G9(Recreation and Culture), G10(Education), G11(Restaurants and Hotels), G12(Miscellaneous Goods and Service).

Groups	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12		Food	Non - Food	All Item
Share (2014/15 HBS)	43.6	0.2	6.9	18.4	5.5	2.1	9.6	4.2	1.3	1.9	3.9	2.3		43.6	56.4	100.0
Jan 2006	35.3	27.5	39.4	42.4	40.9	31.5	52.4	52.4	42.0	35.6	25.0	47.3		35.1	40.8	37.4
Feb 2006	35.4	27.5	39.4	42.4	40.8	31.5	52.4	52.4	42.0	35.6	25.0	47.8		35.1	40.8	37.5
Mar 2006	36.0	28.3	39.4	42.5	41.6	31.5	53.2	52.4	42.0	35.6	25.2	48.2		35.8	41.1	38.0
Apr 2006	36.8	28.3	39.9	44.5	41.7	32.0	54.1	52.4	42.4	36.1	26.3	49.0		36.6	41.8	38.9
May 2006	37.6	28.3	39.9	45.3	42.2	32.6	56.6	52.4	44.6	36.1	26.5	48.9		37.4	42.4	39.6
Jun 2006	36.7	28.3	40.3	45.3	42.2	32.6	57.2	52.4	45.0	36.1	26.6	49.4		36.5	42.5	39.1
Jul 2006	37.1	33.9	40.5	45.6	42.5	32.6	61.0	52.4	45.3	36.1	26.3	50.2		36.8	43.7	39.5
Aug 2006	37.9	33.9	40.8	46.1	42.8	32.6	64.2	52.0	45.1	36.1	26.3	50.5		37.6	44.0	40.2
Sep 2006	38.6	33.9	40.9	47.4	43.4	32.6	66.0	52.0	46.3	36.1	28.3	51.0		38.4	44.7	41.0
Oct 2006	38.7	34.0	41.6	47.8	44.2	33.1	67.6	52.0	46.3	36.1	28.5	51.5		38.5	45.2	41.2
Nov 2006	39.5	34.0	41.8	47.9	44.5	34.7	67.6	52.0	47.0	36.1	29.0	51.2		39.3	45.5	41.8
Dec 2006	39.0	34.0	41.5	47.9	44.5	34.7	67.6	50.4	46.9	36.1	29.0	52.5		38.8	45.4	41.5
Jan 2007	40.3	34.0	42.4	48.5	45.0	35.1	67.9	50.4	46.9	40.4	30.4	47.3		40.1	45.9	42.5
Feb 2007	41.3	33.9	42.2	49.6	45.2	35.1	68.1	50.4	47.8	40.4	30.4	47.3		41.1	46.1	43.2

Groups	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12		Food	Non - Food	All Item
Share (2014/15 HBS)	43.6	0.2	6.9	18.4	5.5	2.1	9.6	4.2	1.3	1.9	3.9	2.3		43.6	56.4	100.0
Mar 2007	42.0	34.2	42.5	48.9	45.7	35.9	69.2	50.4	49.4	40.4	31.7	47.3		41.7	46.7	43.7
Apr 2007	41.8	34.9	42.8	49.0	46.3	35.9	64.9	50.4	49.5	40.4	33.0	47.3		41.6	46.6	43.6
May 2007	42.2	34.9	42.9	49.0	46.7	35.9	63.8	50.4	49.4	40.4	33.2	47.3		41.9	46.6	43.8
Jun 2007	41.7	34.9	43.0	49.1	46.8	35.9	69.5	49.6	50.8	40.4	33.3	47.3		41.5	47.0	43.7
Jul 2007	44.2	34.9	43.0	49.4	47.2	35.9	69.5	49.6	51.6	40.4	33.3	47.3		43.9	47.1	45.2
Aug 2007	44.2	34.9	42.8	49.5	47.4	39.3	69.5	49.6	51.5	40.4	33.8	47.3		43.9	47.4	45.3
Sep 2007	45.5	34.9	43.4	49.8	48.1	39.2	71.0	49.6	52.1	40.4	33.2	47.3		45.2	47.7	46.2
Oct 2007	45.6	35.1	44.6	49.8	48.9	39.3	70.6	49.6	52.3	40.4	35.6	47.3		45.3	48.3	46.5
Nov 2007	46.2	35.1	44.1	49.8	49.4	39.4	71.7	49.6	52.8	40.4	38.2	47.3		45.9	48.7	47.0
Dec 2007	45.8	34.2	44.1	50.2	50.0	39.4	71.5	50.0	53.1	40.4	41.3	47.3		45.5	49.2	47.0
Jan 2008	47.2	34.2	45.3	50.3	50.2	41.5	71.6	49.3	54.5	42.4	40.2	53.5		46.9	49.8	48.0
Feb 2008	49.6	34.2	45.4	51.3	50.3	41.5	72.0	49.3	54.5	42.9	40.4	53.3		49.3	50.2	49.6
Mar 2008	50.5	34.4	45.4	52.0	51.2	41.4	72.1	49.3	54.5	42.9	40.4	54.2		50.2	50.7	50.3
Apr 2008	52.6	34.5	44.8	52.4	52.5	42.5	72.5	49.2	54.3	42.9	41.3	57.3		52.3	51.2	51.7
May 2008	54.3	34.6	44.9	54.6	52.6	42.5	81.6	49.2	54.3	43.6	41.3	57.4		54.0	52.6	53.3
Jun 2008	53.8	34.8	47.0	55.4	54.0	44.9	83.3	49.2	54.5	43.6	42.7	59.7		53.4	53.9	53.5
Jul 2008	53.8	40.1	47.1	67.3	53.9	44.7	90.5	49.2	54.4	43.6	41.7	56.3		53.5	58.4	55.3
Aug 2008	53.9	39.8	46.9	67.5	54.1	45.0	89.2	49.2	54.4	43.6	42.1	55.7		53.5	58.4	55.3
Sep 2008	57.7	40.0	48.0	68.4	55.3	45.0	89.4	49.2	55.3	43.6	42.7	56.6		57.3	59.2	57.9
Oct 2008	58.5	40.7	48.4	67.9	55.4	45.4	88.1	49.2	55.3	43.6	42.9	56.3		58.1	59.0	58.3
Nov 2008	57.9	40.8	48.6	68.0	55.7	45.8	88.3	49.2	55.6	43.9	44.1	57.4		57.6	59.4	58.1
Dec 2008	56.8	40.8	48.7	67.3	55.8	45.8	86.9	49.2	55.9	43.9	44.8	57.6		56.4	59.2	57.4
Jan 2009	57.8	40.9	48.8	66.2	56.7	46.7	85.2	49.2	55.9	43.9	47.4	58.5		57.5	58.4	58.0
Feb 2009	57.7	41.2	48.9	65.5	57.0	46.7	81.7	49.2	56.1	45.5	45.9	61.8		57.4	58.0	57.8
Mar 2009	58.0	41.0	49.1	65.5	57.0	46.7	80.0	49.2	56.1	45.5	45.9	62.1		57.6	57.9	57.9
Apr 2009	58.1	41.0	49.2	65.7	57.2	47.1	78.1	49.2	56.1	45.5	46.1	63.1		57.7	58.0	58.0
May 2009	57.8	40.7	49.4	65.7	57.5	47.6	74.9	49.2	56.2	45.5	46.1	62.8		57.5	57.9	57.8
Jun 2009	57.8	40.7	49.5	65.7	57.8	47.6	74.9	49.2	56.8	45.5	46.1	62.8		57.4	57.9	57.8
Jul 2009	58.1	44.2	49.8	65.9	57.9	47.6	76.7	49.2	56.9	45.5	46.1	63.3		57.8	58.3	58.2
Aug 2009	58.0	44.2	49.8	65.9	57.9	47.7	76.8	49.2	56.9	45.5	46.1	63.5		57.7	58.3	58.1
Sep 2009	61.6	43.7	50.7	66.2	58.1	48.3	77.5	49.2	57.3	45.5	46.1	63.7		61.3	58.7	60.3
Oct 2009	62.2	47.7	50.8	66.6	58.4	48.3	77.7	49.2	58.0	45.5	50.0	63.7		61.8	59.4	60.9
Nov 2009	62.1	49.6	50.9	67.2	58.5	48.7	78.3	49.2	58.0	45.5	50.0	64.3		61.7	59.8	61.0
Dec 2009	60.8	51.6	50.9	67.4	58.7	48.7	78.3	49.2	58.0	45.5	50.0	65.2		60.4	60.0	60.3
Jan 2010	62.9	51.6	51.1	67.3	59.0	49.7	78.3	49.2	58.1	51.2	51.2	65.4		62.5	60.3	61.7
Feb 2010	61.8	51.8	51.5	67.6	59.0	52.0	78.3	49.2	58.8	51.2	51.2	65.7		61.4	60.6	61.2
Mar 2010	62.8	51.8	51.6	67.6	59.0	52.6	79.1	49.2	58.8	51.2	53.1	65.7		62.4	60.9	61.9
Apr 2010	61.9	51.8	51.8	68.0	59.0	52.6	79.8	49.2	58.8	51.2	53.6	65.0		61.5	61.2	61.5
May 2010	60.4	51.8	51.8	68.8	59.2	52.6	79.6	49.2	59.9	51.2	53.6	65.0		60.0	61.5	60.7

Groups	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12		Food	Non - Food	All Item
Share (2014/15 HBS)	43.6	0.2	6.9	18.4	5.5	2.1	9.6	4.2	1.3	1.9	3.9	2.3		43.6	56.4	100.0
Jun 2010	60.8	51.8	51.8	69.6	59.5	52.7	82.7	49.2	58.9	51.2	54.2	65.1		60.4	62.1	61.2
Jul 2010	61.1	58.2	52.0	70.2	59.9	52.7	83.4	49.2	58.6	51.2	56.4	65.5		60.7	62.8	61.7
Aug 2010	64.1	59.4	53.0	70.2	60.0	52.7	83.5	49.2	61.2	51.2	56.4	66.2		63.7	63.1	63.5
Sep 2010	64.7	57.9	53.4	69.9	60.4	52.7	83.5	49.2	61.1	51.2	56.4	66.2		64.3	63.1	63.9
Oct 2010	64.6	57.9	54.1	69.9	60.7	56.9	83.7	49.2	62.0	51.2	56.6	66.3		64.2	63.5	64.0
Nov 2010	64.4	57.9	54.3	69.9	60.8	56.9	83.8	49.2	62.0	51.2	56.6	66.3		64.0	63.6	63.9
Dec 2010	64.6	57.9	54.3	69.9	61.7	56.9	84.0	50.0	62.0	51.2	57.0	61.5		64.2	63.5	64.0
Jan 2011	67.5	57.9	55.1	70.2	62.1	62.2	84.1	50.0	62.0	54.1	57.2	58.0		67.1	64.0	65.8
Feb 2011	69.6	58.4	55.4	71.0	62.7	62.2	85.1	50.0	62.4	54.1	57.2	57.3		69.1	64.5	67.1
Mar 2011	71.4	58.5	55.5	72.7	63.4	62.9	88.0	50.0	62.4	54.1	59.3	58.2		71.0	65.7	68.7
Apr 2011	73.2	61.2	56.2	74.1	63.7	63.0	89.8	50.0	62.5	54.1	59.3	58.7		72.7	66.5	70.0
May 2011	71.8	61.2	57.2	74.5	64.3	63.0	89.8	50.0	62.5	54.1	59.3	58.7		71.3	66.9	69.4
Jun 2011	73.6	61.2	57.6	75.2	64.4	63.0	93.9	50.0	62.5	54.1	59.3	58.7		73.2	67.5	70.7
Jul 2011	74.3	61.2	57.8	76.5	65.9	65.3	94.4	50.0	66.0	54.1	60.6	59.9		73.8	68.6	71.5
Aug 2011	77.2	61.2	62.3	77.0	68.1	65.3	94.9	50.0	67.2	54.1	60.6	60.6		76.7	69.8	73.6
Sep 2011	77.9	61.8	62.9	76.9	70.0	65.3	96.3	50.0	67.2	54.1	62.8	60.7		77.4	70.4	74.3
Oct 2011	79.2	62.9	63.2	78.0	71.3	65.3	96.4	50.0	67.2	54.1	65.8	60.7		78.7	71.4	75.4
Nov 2011	79.5	64.4	64.1	78.7	71.7	65.3	97.9	50.0	68.7	54.1	66.0	61.0		79.0	72.0	75.8
Dec 2011	81.2	68.1	64.5	80.3	74.4	66.5	98.1	50.0	68.7	54.1	66.0	63.4		80.7	73.3	77.3
Jan 2012	83.3	67.7	64.7	81.3	76.9	66.5	95.7	50.0	70.4	63.8	66.5	64.3		82.8	74.0	78.9
Feb 2012	82.5	67.7	68.2	81.0	78.5	70.1	94.7	50.1	70.4	63.8	66.5	64.7		82.0	74.8	78.8
Mar 2012	79.7	76.7	69.2	80.8	79.8	72.0	95.5	50.1	70.4	63.8	67.2	65.8		79.2	77.4	78.8
Apr 2012	80.7	80.0	69.9	81.8	80.9	73.2	95.9	50.1	72.6	64.1	68.4	66.9		80.2	77.8	79.3
May 2012	78.7	81.2	70.1	81.0	81.5	78.1	96.6	50.1	72.2	63.8	68.4	67.9		78.2	76.8	77.5
Jun 2012	77.2	79.1	72.5	81.9	83.3	78.1	96.1	50.1	74.5	63.8	70.2	68.7		76.7	77.9	77.0
Jul 2012	79.2	83.6	73.2	81.0	83.9	78.1	95.6	50.1	74.5	63.8	70.2	69.4		78.7	77.9	78.2
Aug 2012	81.5	83.6	73.8	80.9	84.2	77.9	95.8	50.1	75.2	63.8	70.2	69.4		81.0	77.9	79.5
Sep 2012	78.7	83.6	74.6	81.3	84.5	78.2	99.3	50.1	75.2	64.3	70.1	69.3		78.2	78.6	78.5
Oct 2012	78.9	86.6	75.2	82.0	84.6	78.8	99.5	49.9	77.2	64.3	70.7	71.3		78.4	79.2	78.9
Nov 2012	78.5	86.7	75.7	82.1	86.3	79.6	99.7	49.9	78.4	64.3	70.7	73.9		78.0	79.8	79.0
Dec 2012	79.6	86.8	76.3	81.5	86.7	79.8	100.0	49.9	80.5	64.3	71.6	75.9		79.1	80.0	79.6
Jan 2013	80.3	86.8	76.5	82.3	86.7	80.3	100.4	49.8	81.5	71.6	72.0	76.2		79.8	80.6	80.3
Feb 2013	80.3	86.7	78.4	84.7	87.0	79.8	98.3	49.8	82.4	71.6	71.5	76.2		79.8	81.6	80.7
Mar 2013	80.6	88.8	79.3	84.8	87.3	79.8	98.2	49.8	82.7	71.7	69.8	76.5		80.1	81.8	81.0
Apr 2013	82.6	88.9	79.4	86.0	87.3	79.8	101.1	49.8	82.6	72.4	69.7	76.8		82.1	82.5	82.3
May 2013	80.9	88.9	79.8	86.0	87.3	79.8	101.2	49.8	83.1	74.3	69.9	78.2		80.4	82.8	81.6
Jun 2013	80.0	88.9	80.1	85.4	87.8	79.8	98.7	49.8	83.1	74.3	69.7	78.4		79.5	82.4	81.0
Jul 2013	84.7	91.1	83.0	85.6	88.0	79.8	99.3	50.0	83.1	74.3	69.6	78.6		84.5	83.4	83.7
Aug 2013	81.9	91.6	83.4	87.5	88.0	80.3	99.6	75.5	83.1	75.5	70.2	78.7		81.9	86.1	83.6

Groups	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12		Food	Non - Food	All Item
Share (2014/15 HBS)	43.6	0.2	6.9	18.4	5.5	2.1	9.6	4.2	1.3	1.9	3.9	2.3		43.6	56.4	100.0
Sep 2013	79.7	91.0	83.4	87.9	88.0	80.3	100.8	75.5	83.1	75.5	70.2	80.2		79.7	86.5	82.7
Oct 2013	80.7	91.0	83.6	89.6	88.0	80.3	100.7	75.5	83.1	75.5	70.5	80.2		80.7	86.5	83.5
Nov 2013	80.8	91.0	84.0	89.8	88.1	80.3	102.0	75.8	83.1	75.5	70.2	80.2		80.8	86.9	83.7
Dec 2013	78.6	91.3	84.3	90.1	88.2	80.8	100.7	75.8	83.1	75.5	70.3	81.8		78.7	87.0	82.6
Jan 2014	82.3	90.7	85.5	90.3	88.6	81.4	100.8	75.8	93.9	82.1	70.8	83.1		82.2	87.9	85.0
Feb 2014	82.5	90.7	85.2	90.2	89.1	81.4	101.1	75.8	93.9	82.1	70.7	83.1		82.4	87.9	85.0
Mar 2014	83.4	87.3	85.0	90.3	89.7	81.1	101.1	75.8	93.9	85.4	70.8	83.4		83.3	88.0	85.6
Apr 2014	85.6	87.3	85.0	90.3	90.4	81.1	101.1	75.8	94.0	85.4	70.9	83.5		85.0	88.6	86.7
May 2014	86.8	87.2	85.2	90.7	90.5	81.1	101.4	75.8	94.0	85.4	70.7	83.5		86.0	88.9	87.4
Jun 2014	85.8	87.2	85.8	93.1	90.5	81.1	102.7	75.8	94.0	85.4	71.2	83.6		85.2	89.9	87.4
Jul 2014	87.4	91.2	86.0	92.8	91.6	81.1	103.3	92.2	94.0	85.4	65.6	83.8		86.4	91.1	88.6
Aug 2014	87.2	94.1	86.1	92.6	91.6	81.1	103.4	92.2	94.0	85.4	71.8	84.0		86.3	91.0	88.5
Sep 2014	85.4	94.1	85.9	92.3	91.6	81.2	102.3	92.2	94.0	84.4	71.8	84.4		84.8	90.8	87.7
Oct 2014	83.7	94.1	86.0	92.3	91.7	81.2	102.3	92.2	94.0	84.4	71.6	84.5		83.1	90.8	86.8
Nov 2014	83.8	94.1	85.6	92.3	91.7	81.2	102.3	92.2	94.0	84.4	71.5	84.6		83.3	90.7	86.8
Dec 2014	82.6	94.1	85.8	92.5	91.8	81.2	102.4	92.2	94.0	84.4	71.8	84.4		82.1	90.8	86.2
Jan 2015	86.4	94.2	86.5	90.9	92.8	82.5	97.7	92.3	94.0	86.8	72.0	84.5		85.8	90.1	87.9
Feb 2015	83.8	94.2	86.4	90.3	92.7	82.4	97.7	92.3	94.2	88.0	71.7	84.9		83.2	90.0	86.4
Mar 2015	84.7	94.3	87.3	88.3	92.7	82.4	91.0	92.3	94.2	88.0	72.2	84.9		84.2	88.6	86.3
Apr 2015	85.2	94.3	88.0	94.7	93.0	82.4	91.6	92.3	94.8	88.0	72.1	85.4		84.6	91.1	87.7
May 2015	88.1	94.3	89.0	95.9	93.3	84.0	95.2	92.3	96.5	88.0	73.0	86.1		87.4	92.4	89.8
Jun 2015	89.5	94.3	91.2	95.8	93.9	87.0	96.0	92.3	96.5	88.0	73.6	86.7		88.8	93.2	90.9
Jul 2015	94.7	94.3	93.5	97.0	94.7	87.5	103.4	100.3	97.7	88.0	69.5	88.8		93.5	95.7	94.5
Aug 2015	96.1	96.0	96.1	97.0	96.1	87.5	103.4	100.3	97.7	88.0	88.8	89.5		95.8	96.4	96.0
Sep 2015	94.3	95.7	95.6	95.3	96.4	89.7	100.2	100.3	97.7	88.0	88.2	89.6		94.0	95.5	94.7
Oct 2015	93.4	95.7	95.4	95.3	96.7	89.7	100.2	100.5	97.7	88.0	88.0	89.8		93.2	95.5	94.3
Nov 2015	97.1	96.0	95.6	95.3	97.5	90.9	100.4	100.5	98.0	88.0	93.7	90.0		96.9	95.7	96.3
Dec 2015	97.1	96.5	95.4	95.4	98.0	90.9	98.1	100.5	98.0	88.0	93.5	91.0		97.0	95.5	96.3
Jan 2016	96.6	96.5	96.2	96.2	98.4	92.0	98.1	100.2	98.0	96.0	94.4	91.5		96.5	96.3	96.4
Feb 2016	95.9	96.5	96.0	95.5	98.4	91.8	97.2	100.0	98.0	96.0	94.6	91.5		95.9	95.9	95.9
Mar 2016	94.3	96.5	95.8	93.9	98.7	91.8	94.5	100.0	98.0	96.0	94.6	91.6		94.3	95.0	94.6
Apr 2016	97.4	96.5	95.6	95.5	98.9	91.9	95.8	100.0	98.0	96.0	94.5	92.5		97.3	95.8	96.5
May 2016	97.6	96.5	96.5	96.2	99.1	94.6	97.1	100.0	98.0	96.0	103.3	93.0		97.8	96.6	97.2
Jun 2016	100.9	96.5	97.5	97.6	99.4	97.2	98.4	100.1	97.4	96.0	103.3	93.7		101.0	97.6	99.3
Jul 2016	101.8	100.0	98.4	98.3	99.5	97.2	99.5	100.1	98.5	96.0	98.4	96.2		101.6	98.4	100.1
Aug 2016	100.1	100.0	98.6	99.1	100.0	99.5	100.4	100.1	99.3	96.0	100.1	98.0		100.1	99.2	99.6
Sep 2016	97.9	100.0	99.0	98.9	99.7	99.5	99.2	99.9	99.5	96.0	100.3	99.1		98.0	99.1	98.5
Oct 2016	97.3	100.0	99.3	98.7	99.8	99.5	98.6	100.0	99.5	96.0	99.0	99.3		97.4	99.0	98.2
Nov 2016	96.7	100.0	99.4	99.9	100.1	100.0	99.5	100.0	99.9	96.0	99.3	99.4		97.5	99.6	98.5

Groups	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12		Food	Non - Food	All Item
Share (2014/15 HBS)	43.6	0.2	6.9	18.4	5.5	2.1	9.6	4.2	1.3	1.9	3.9	2.3		43.6	56.4	100.0
Dec 2016	98.3	100.0	99.9	100.7	100.3	100.0	100.5	100.0	99.9	96.0	99.2	99.9		98.3	100.2	99.2
Jan 2017	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0
Feb 2017	100.2	100.0	99.9	100.7	100.0	100.0	101.1	100.0	96.7	100.0	100.0	100.0		100.2	100.3	100.2
Mar 2017	101.1	100.0	99.9	100.3	100.0	100.1	102.4	100.0	98.4	100.0	100.0	100.0		101.1	100.5	100.7
Apr 2017	104.1	100.0	99.8	107.3	100.0	100.4	102.8	100.0	98.4	100.0	100.0	99.8		104.2	102.8	103.4
May 2017	107.2	100.0	99.8	107.6	100.1	104.0	102.0	100.1	98.4	100.0	100.0	99.9		107.3	102.9	104.8

Table 4.2: Zanzibar Consumer Price Index (1991 – 2006)

Year	Index			Inflation		
	Food	Non-food	Total Index	Food	Non-food	Total Index
2006	107.0	105.9	106.5	11.6	11.3	11.4
2005	461.0	561.6	485.0	11.9	5.0	9.7
2004	412.0	534.8	442.0	10.2	3.4	8.1
2003	374.0	517.1	409.0	9.0	9.6	9.1
2002	343.0	471.6	375.0	7.0	0.6	5.3
2001	320.6	468.5	356.2	3.4	3.5	3.4
2000	310.1	452.6	344.3	-0.4	23.8	5.6
1999	311.2	365.6	326.2	-4.1	13.3	0.7
1998	324.4	322.6	323.9	0.4	3.1	1.0
1997	323.2	312.9	320.7	12.2	14.5	12.5
1996	288.0	273.2	285.0	13.8	28.7	17.8
1995	253.0	212.2	242.0	33.2	16.8	29.4
1994	190.0	181.6	187.0	27.5	10.0	23.0
1993	149.0	165.1	152.0	17.3	46.3	22.6
1992	127.0	112.8	124.0	27.0	12.8	24.0
1991	100.0	100.0	100.0			

Note: (1991-2005 First baskets with ten Groups)
(2006 revised basket with twelve COICOP groups)

Table 4.3: Inflation Rates

Headline Inflation Rate											
Month	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
January	13.4	13.1	20.7	6.5	6.6	19.9	1.8	5.8	3.5	9.7	3.7
February	15.3	14.7	16.5	5.9	9.7	17.4	2.4	5.3	1.7	10.9	4.5
March	15.0	15.3	15.1	6.8	10.9	12.9	2.8	5.6	0.9	9.7	6.4
April	12.3	18.5	12.2	5.9	13.8	9.9	3.9	5.3	1.1	10.1	7.1
May	10.8	21.5	8.6	5.0	14.2	11.6	5.4	7.0	2.8	8.2	7.8
June	11.9	22.4	8.1	5.9	15.4	9.0	5.1	8.0	3.9	9.3	
July	14.5	22.2	5.3	6.0	15.9	9.4	7.0	5.9	6.7	5.8	
August	12.9	22.0	5.1	9.2	16.0	8.0	5.2	5.9	8.5	3.7	
September	12.8	25.1	4.3	5.8	16.4	5.6	5.3	6.0	8.1	4.0	
October	12.8	25.3	4.5	5.0	17.8	4.6	5.8	3.9	8.7	4.1	
November	12.4	23.7	4.9	4.7	18.7	4.2	6.0	3.8	10.9	2.3	
December	13.2	22.1	5.2	6.1	20.8	3.0	3.8	4.4	11.7	3.0	
Year	13.1	20.5	9.2	6.1	14.7	9.4	5.0	5.6	5.7	6.7	
Food Inflation Rate											
Month	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
January	14.2	17.0	22.5	8.8	7.3	23.4	-3.6	3.0	4.3	12.5	3.6
February	16.9	19.9	16.5	7.0	12.7	18.6	-2.7	3.3	1.0	15.2	4.5
March	16.5	20.4	14.8	8.3	13.7	11.6	1.2	4.0	1.1	12.0	7.2
April	13.7	25.7	10.5	6.5	18.3	10.3	2.3	3.5	-0.4	14.9	7.1
May	12.2	28.7	6.5	4.4	18.9	9.6	2.8	7.0	1.6	11.9	9.7
June	13.8	28.8	7.4	5.2	21.1	4.8	3.6	7.2	4.2	13.7	
July	19.2	21.8	8.1	5.1	21.5	6.7	7.3	2.2	8.3	8.7	
August	16.6	21.9	7.7	10.4	20.4	5.6	1.1	5.3	11.0	4.5	
September	17.7	26.8	6.9	5.0	20.3	1.0	1.9	6.4	10.9	4.2	
October	17.7	28.3	6.4	3.9	22.5	-0.4	3.0	3.0	12.1	4.5	
November	16.9	25.5	7.1	3.7	23.4	-1.2	3.5	3.1	16.4	0.6	
December	17.4	23.9	7.1	6.4	25.6	-2.0	-0.5	4.4	18.1	1.4	
Year	16.1	24.1	10.1	6.2	18.8	7.3	1.7	4.4	7.4	8.7	
Non Food Inflation Rate											
Month	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
January	12.7	8.4	17.2	3.3	6.2	15.6	8.9	9.0	2.6	6.8	3.8
February	13.0	8.9	15.4	4.6	6.3	16.1	9.0	7.7	2.4	6.6	4.6
March	13.5	8.5	14.3	5.2	7.8	17.8	5.7	7.6	0.7	7.2	5.8
April	11.4	10.0	13.3	5.5	8.7	16.9	6.1	7.4	2.8	5.1	7.3
May	9.9	13.0	10.0	6.2	8.8	14.8	7.8	7.3	4.0	4.5	6.5
June	10.4	14.8	7.5	7.1	8.7	15.4	5.8	9.1	3.6	4.8	
July	7.8	23.9	-0.1	7.8	9.1	13.6	7.1	9.3	5.0	2.9	
August	7.9	23.1	-0.1	8.1	10.6	11.7	10.4	5.8	5.9	2.9	
September	6.7	24.0	-0.8	7.5	11.7	11.6	9.9	5.0	5.2	3.8	
October	6.9	22.3	0.7	6.9	12.4	11.0	9.2	4.9	5.2	3.7	
November	7.0	22.1	0.6	6.3	13.3	10.8	8.9	4.4	5.5	4.1	
December	8.3	20.2	1.3	6.0	15.3	9.2	8.8	4.4	5.2	4.9	
Year	9.6	16.6	6.6	6.2	9.9	13.7	8.1	6.8	4.0	4.8	