Core and Non-Core Inflation Measures for Kenya

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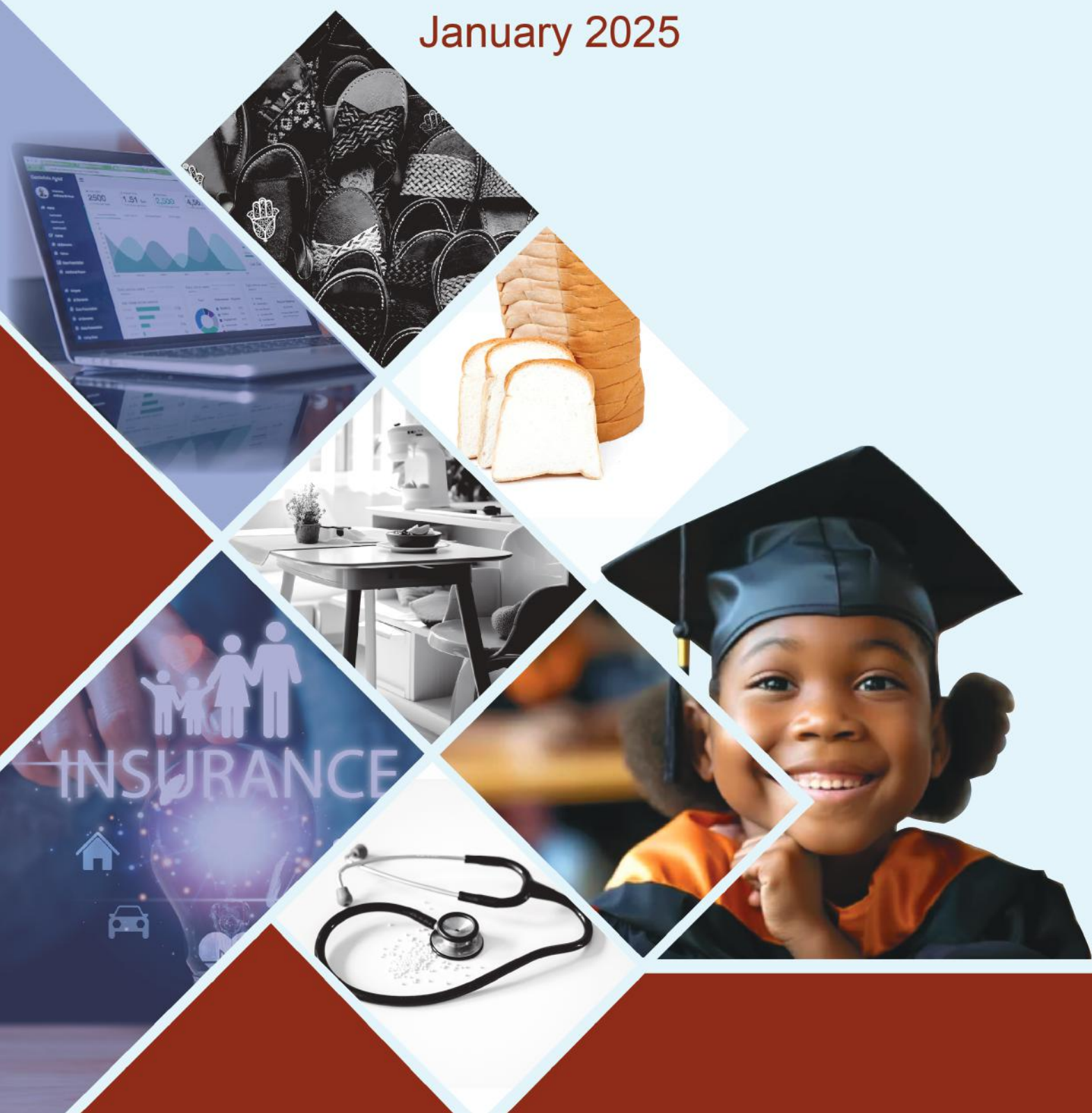
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PREFACE

The Kenya National Bureau of Statistics (KNBS) is the principal Government agency mandated to collect, analyse and disseminate official statistical data. In line with its mandate, the Bureau produces Consumer Price Indices (CPI) and publishes headline inflation. The Central Bank of Kenya (CBK), which is one of the main users of CPI data, uses inflation data as a measure for assessing achievement its primary objective of ensuring stability in general level of prices of goods and services in the economy. Price stability promotes long-term planning, investment and economic growth.

That notwithstanding, the standard headline measure of inflation contains price changes of some commodities that are subject to price volatility from time to time due to various factors such as weather changes, shocks in the global economy, and other supply side factors. Core inflation on the other hand, is a measure of inflation that excludes prices of highly volatile commodity items in the CPI basket. Core inflation, therefore, provides a relatively stable measure of inflation that abstracts from the impact of extreme price volatility associated supply side factors, and hence, is often described as a measure of underlying inflation that mainly capture structural changes in the economy. It is a more reliable measure of inflation that is commonly used by central banks to inform monetary policy decisions and communication with the public. However, whereas KNBS currently releases headline inflation at the end of every month, the data is not decomposed into core and non-core inflation.

This report presents the core and non-core inflation measures for Kenya, as jointly developed by the KNBS and CBK. The core inflation measure was compiled based on the East African Community (EAC) Guidelines for Compiling Harmonized Consumer Price Indices and international best practices. The current CPI basket of goods and services has been decomposed into two sub-baskets, that is, core CPI index and non-core CPI index. The basket used to derive core index contains goods and services whose prices are not highly susceptible to short-term shocks and are, therefore, less volatile, while that for the non-core index contains items whose prices are administered or relatively volatile. These mainly include select energy and food items in the CPI basket.

The development of an official measure of core inflation measure for Kenya is a major milestone. It is also timely, given the recent adoption of the inflation targeting monetary policy framework by the CBK and the need to align with the EAC convergence criteria with regard to computation of CPI measures in the region. The computed core inflation measure will play a vital role as an indicator of changes in underlying price developments and demand pressures. While CBK currently uses non-food non-fuel (NFNF) as a proxy for core inflation, the new measure constitutes a larger share of items in the CPI basket and hence, is more representative in capturing inflation dynamics.

This publication provides a detailed documentation of the motivation, methodology used to determine the items to be excluded in the CPI basket, as well as the procedure used in the computation of core and non-core components of inflation. We take this opportunity to thank the analytical teams from the KNBS and CBK that took time to not only analyse the 330 items in the CPI in developing the core inflation measure but also prepared this report. This paves way for monthly publication and dissemination of core inflation by the KNBS.

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CONCEPTS AND DEFINITIONS

Consumer price index (CPI): A measure of changes over time (monthly, quarterly, annually or any other time) in the general level of prices that are paid by households/consumers for a basket of goods and services, for the purpose of final household consumption.

Household Final Monetary Consumption Expenditure (HFMCE): A part of final consumption expenditure which is incurred by households; in monetary transactions; and on goods and services that are used for the direct satisfaction of individuals or households.

CPI Weight: The total household consumpt ion expenditure on a given elementary aggregate expressed as a share of total consumption expenditure of all elementary aggregates.

CPI Weight reference period: Refers to the period to which the expenditure data used to estimate the weights is relates to or calculated. The weight reference period for the current CPI is the 12 months period from August 2015 to September 2016.

Elementary Aggregate (EA): The smallest aggregate for which reliable expenditure data and weights are available and used for the CPI, that is, with a weight equal or greater than one part per thousand (0.001). Currently the CPI has got 330 EAs.

Elementary Aggregate Index: A price index for an elementary aggregate. EAIs are combined with weights to form higher level indices. In Kenya, elementary aggregate indices as computed as the unweighted geometric mean of the price ratios (i.e. Jevons index). The formula in use is:

$$I_J(p^0, p^t) = \prod_{m=1}^{M} \sqrt[M]{p_m^t \Big/ p_m^0}$$

Where

$I_J(p^0, p^t)$ is the Jevons index for time period t, relative to the base period 0;

M is the total number of lowest-level items (i.e. specified commodities) within a particular elementary aggregate; and m is a particular item.

Higher-level index: An aggregate index calculated as a weighted arithmetic average of the elementary aggregates using weights from some earlier period that remain fixed for a fixed for a specified period.

Headline Inflation rate: This is the total inflation in an economy, for a basket of goods and services, that is, for all items including commodities like food and energy.

Contribution to overall inflation rate: The contribution of a component to a change in the overall CPI over a given time period is the change that would have occurred in the overall CPI if that component had undergone its observed price change, but all other component indices had remained frozen at their values at the start of the period. The effect of each component depends not only on the size of its price change but also its weight. It should be noted that the contribution can be negative, implying that the inflation of the component is below that of the overall CPI inflation rate.

Core inflation: Means an index derived from the CPI which is intended to show the underlying trend in inflation by excluding price movements arising from transient or volatile product groups.

Inflation targeting: a monetary policy framework in which the central bank commits to achieve a pre-announced, publicly displayed target for the annual rate of inflation. Inflation targeting central banks typically control the short-term interest rate (policy rate) as a monetary policy tool to keep inflation in line with a given target.

Exclusion method - excludes CPI items with volatile price changes particularly food and energy related components from the computation of core inflation.

CPI-trim is a measure of core inflation that excludes CPI components whose rates of change in a given month are located in the tails of the distribution of price changes. This measure helps filter out extreme price movements that might be caused by factors specific to certain components. In particular, cpi-trim excludes 20 per cent of the weighted monthly price variations at both the bottom and top of the distribution of price changes, and thus it always removes 40 per cent of the total CPI basket.

CPI-median is a measure of core inflation corresponding to the price change located at the 50th percentile (in terms of the CPI basket weights) of the distribution of price changes in a given month.

Classification of Individual Consumption According to Purpose (COICOP): COICOP is the international reference classification of household expenditure. The objective of COICOP is to provide a framework of homogeneous categories of goods and services, which are considered a function or purpose of household consumption expenditure. The classification has divisions, groups, classes, sub classes, micro classes and elementary aggregates.

CHAPTER 1: INTRODUCTION

1.1 Background

The Kenya National Bureau of Statistics (KNBS) is the principal Government agency mandated to collect, analyse and disseminate official statistical data, including consumer prices. Inflation is a key macroeconomic indicator that is widely used by different stakeholders. In particular, it is used by the Central Bank of Kenya (CBK) as a measure of price stability—the primary objective of CBK is to formulate and implement monetary policy with the aim of achieving and maintaining stability in the general level of prices in the economy. The CBK implements monetary policy with the aim of achieving a medium-term inflation target of 5 percent inflation, with an allowance of ± 2.5 percent deviation in the short term. Price stability plays a crucial role in promoting long-term planning, investment and economic growth.

Whereas KNBS currently publishes headline inflation at the end of every month, alongside inflation for the 13 broad Consumer Price Index (CPI) categories (COICOP Divisions), it does not publish measures of core and non-core inflation. In general, core inflation is a measure of inflation that excludes prices of highly volatile commodity items in the CPI basket. Core inflation is critical in informing monetary policy decisions since it captures persistent price developments consistent with macroeconomic fundamentals. Specifically, core inflation provides an indication of demand side pressures. Prices of the excluded components (non-core) are often driven by transient or supply-side factors such as seasonal weather conditions and international oil prices.

According to the East African Monetary Union (EAMU) Protocol, Partner States' macroeconomic convergence criteria require a performance ceiling on headline inflation as well as an indicative one on core inflation. Therefore, the need for a consistent measure of core inflation in line with broad EAC guidelines is vital. Secondly core inflation plays an important role in informing monetary policy particularly under Inflation Targeting (IT) framework. Central banks especially inflation targeting ones use measures of core inflation in their communication to the public. CBK currently generates non-food non-fuel (NFNF) as a proxy measure of core inflation using KNBS data. The NFNF is computed by excluding food, transport and energy components from the overall inflation. While this measure plays a vital role in understanding underlying inflation dynamics, it has become imperative to have an official comprehensive measure of core inflation for Kenya. This need is informed by the fact that CBK has been transitioning to IT monetary policy framework and recently officially adopted the framework in line with the *White Paper on Modernization of the Monetary*

Policy Framework and Operations (CBK2021).[1] While price stability remains the main objective, distinguishing between headline inflation and core/underlying inflation is not only crucial but also a standard practise under IT framework. The transition to inflation targeting among many countries including developing and low-income countries in Africa is partly driven by the drawbacks of targeting monetary aggregates and the rapid evolution of financial innovations.

Against this background, this report provides an analysis and computation of Kenya's core inflation and by extension, non-core inflation based on EAC guidelines, best practices and Kenya's local context.

1.2 Justification for core and non-core inflation measures

In most countries, the core and non-core inflation measures are published by the statistical agencies alongside the headline inflation and other related measures. EAC Partner States such as Uganda, Rwanda and Tanzania, and most advanced economies including United States of America (USA), United Kingdom, Canada and Euro area, as well as inflation targeting emerging economies such as Indonesia and Malaysia publish various measures of core inflation.

The concept of core inflation is to remove most or all the products that are highly volatile or transient from the overall index since they cause distortions to the overall index. By removing such products from the index, it is argued that the remaining, less volatile index, better demonstrates the fundamental changes in the rate of inflation. It can thus be used for economic analysis and, indeed, economic policy decisions, particularly by the Central Bank whose primary objective is to ensure price stability. Whereas the CBK has been computing

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[1] https://www.centralbank.go.ke/wp-content/uploads/2021/07/Modernisation-of-the-Monetary-Policy-Framework-Operations.pdf

the NFNF inflation as a proxy for core inflation to guide monetary policy, it has become imperative to have a more reliable measure of core inflation based on the following:

i. CBK has officially transitioned to IT monetary framework.

ii. Need to align with EAC convergence criteria— In March 2022, the EAC community issued guidelines on computation of Harmonized CPI in the region.

iii. Need to align to global best practice among IT central banks.

A desirable core inflation measure should be more stable than the headline inflation, should not differ systematically from the headline inflation, and should be easy for the public to understand.

CHAPTER TWO: METHODOLOGY

2.1 Methods of computing Core inflation measures

Literature identifies three main approaches to computation of the core inflation: exclusion method, statistical method – the trimmed mean, median, principal component analysis and weighted mean; and model-based approach. The latter includes common component approach . Some countries have adopted both exclusion and trimmed/weighted mean approaches to compute core inflation.

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[2] Cristadoro et al, 2005

The exclusion approach excludes an identified set of items which have historically had volatile prices, mainly food and energy components, from the overall CPI. The advantage of this approach is that it facilitates the removal of items whose prices tend to be volatile, thus the remaining measure is reflective of persistent inflationary pressures in the economy. However, the approach is sometimes criticised for the 'ad hoc' manner in which components remain or get excluded in computing the core inflation. For instance, not all components of food and energy exhibit excess volatility, therefore a blanket exclusion of these components may lead to loss of potentially useful information in explaining core inflation. On the other hand, the retained components may contain volatile items which may bias the computation of the measure of core inflation. As a result, some central banks have adopted more than one measure of core inflation to complement the core inflation measure derived from exclusion approach.

The statistical approach involves two main methods: trimmed mean and weighted median methods. The trimmed mean involves exclusion of components whose price changes are extreme (outliers), usually at 10 percent exclusion rate. The weighted median approach (50% trim) involves measuring core inflation by the corresponding price change located at the 50th percentile of the distribution each month. These methods attempt to measure the central part of the distribution of price changes and give a measure of inflation that is not excessively affected by large price movements. However, the trimmed mean method requires technical subjectivity on: (i) whether the trim will be symmetric or asymmetric[3] ; (ii) choice of frequency of price changes; (iii) seasonality; and (iv) treatment of large expenditure items such as housing with large weights in the CPI. Since the choice around these technical issues result in a slightly different core inflation measure, the Central Bank may suffer from reputation/communication challenges particularly if the decisions on technical issues change frequently.

The model-based approach includes the common component method where core inflation is measured by a common component extracted from the CPI basket using dynamic factor models. This approach is not commonly used by central banks, though from literature we find that US and Bank of Canada use factor models to derive alternative measures of core inflation.

The usefulness of core inflation measure for monetary policy purposes depends on the extent to which the measure chosen contributes to the transparency and policy accountability of the central bank **(Table 2.1).**

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[3] Roger (1997) suggested the use of the 57th percentile for the New Zealand CPI, while Dolmas (2005) suggests trimming 25 per cent off the top and 19 per cent off the bottom of the distribution for the US personal consumption expenditures (PCE) chain price index.

Table 2.1: Evaluation (Qualitative) Framework for Measures of Core Inflation

		Exclusion method	Trimmed/ Weighted mean	Model Based
	Timeliness	√	√	√
Policy Accountability	Credibility: Can the measure be externally verified	√	√	X
	Credibility: Is the measure easily understood	√	X	X
	The exclusion of items for which the Central Bank has no control	√	X	X
Input for the Formulation of Monetary Policy	Ability to be forecasted	√	X	X
	Predictive ability for the Overall CPI inflation	?	?	?

Source: Adopted from Ong et al (2011), MAS

Based on the above, the measure must be readily available on a timely basis and must be released at the same frequency as CPI inflation. In addition, the core inflation measure should be simple to understand, and easy to be replicated and verified by the external parties/public. By this criterion, the trimmed mean and model-based measures may not be easily conveyed to public and may not be easily replicated by external parties given the underlying assumptions vary.

2.2 EAC Convergence Criteria Guidelines

The EAC convergence criteria[4] recommends the exclusion approach to be used in the computation of the core inflation in the region. The EAC Guidelines for Compiling Harmonized Consumer Price Indices (HCPI) (March 2022) recommends exclusion of all indices under the following broad categories of products in the computation of core indices:

- Fresh fruits;
- Fresh vegetables;
- Fresh milk;
- Dried vegetables;
- Tobacco leaves;
- Imported fuels (e.g., petrol, diesel, paraffin, and cooking gas etc.);
- Solid fuels (e.g., charcoal, firewood etc.);
- Utilities (electricity, metered water, and unmetered water);

See **Table 2.2** for detailed list of products recommended for exclusion.

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[4] The criteria and guidelines for EAC in computation of Core inflation are based on the 2020 Consumer Price Index manual developed by International Monetary Fund (IMF), International Labour Organization (ILO), Statistical Office of the European Union (Eurostat), United Nations Economic Commission for Europe, Organisation for Economic Co-operation and Development (OECD), and the World Bank. Moreover, some countries in the EAC had done analysis on the commodity prices and tested their volatility and persistence and by that this informed the criteria and guideline.

Table 2.2: EAC Detailed Products Exclusion List

Sr. No	Product Code COICOP–2018	Product Description
1	01.1.6.1	Dates, figs and tropical fruits, fresh
2	01.1.6.2	Citrus fruits, fresh
3	01.1.6.3	Stone fruits and pome fruits, fresh
4	01.1.6.4	Berries, fresh
5	01.1.6.5	Other fruits, fresh
6	01.1.6.6	Frozen fruit
7	01.1.6.7	Fruit, dried and dehydrated
8	01.1.6.8	Nuts, in shell or shelled
9	01.1.7.1	Leafy or stem vegetables, fresh or chilled
10	01.1.7.2	Fruit-bearing vegetables, fresh or chilled
11	01.1.7.3	Green leguminous vegetables, fresh or chilled
12	01.1.7.4	Other vegetables, fresh or chilled
13	01.1.7.5	Tubers, plantains and cooking bananas
14	01.1.7.6	Pulses
15	01.1.7.7	Other vegetables, tubers, plantains and cooking bananas, dried and dehydrated
16	01.1.7.8	Vegetables, tubers, plantains and cooking bananas, frozen
17	01.1.4.1	Raw and whole milk
18	01.2.1.0.	Sugar cane consumed for extracting juice
19	01.1.6.5	Sugar cane consumed as a snack
20	02.3.0.9.	Tobacco leaves
21	04.4.1.1	Water supply through network systems
22	04.4.1.2	Water supply through other systems
23	04.5.1.0	Electricity
24	04.5.2.1	Natural gas through networks
25	04.5.2.2	Liquefied hydrocarbons
26	04.5.3.0	Liquid fuels
27	04. 5.4.1	Coal, coal briquettes and peat
28	04. 5.4.2	Wood fuel, including pellets and briquettes
29	04. 5.4.3	Charcoal
30	04. 5.4.9	Other solid fuels
31	04.5 .5.0	Other energy for heating and cooling
32	07. 2.2.1	Diesel
33	07. 2.2.2	Petrol
34	07. 2.2.3	Other fuels for personal transport equipment
35	07. 2.2.4	Lubricants
36		Any other products that Partner States may exclude after carrying out a study to measure persistence and volatility of monthly consumer prices to determine the additional products for exclusion

The EAC countries including Rwanda, Uganda and Tanzania follow the exclusion method in computation of their core inflation (which exclude fresh products and energy indices) in line with the EAC guidelines, resulting to 77.5 per cent, 84 per cent, and 74 per cent share of the headline inflation basket, respectively.

2.3 Properties of a good core inflation measure

Different approaches generally give different outcomes of core inflation, albeit mostly minimal. However, there are general guiding principles in computation of underlying/core inflation, based on the Consumer Price Index Manual (2020). These are summarized in **Table 2.3.**

Table 2.3: Properties of a Good Indicator of Core Inflation

Properties of a good indicator	Fitness tests
Must be more stable than headline CPI inflation	A good indicator should usually not have big changes from month-to-month evaluate volatility
Should not differ systematically from headline CPI inflation	(1) Deviation of average growth rate of indicator from average growth rate of headline CPI inflation. (2) Deviation of indicator from trend headline CPI inflation (3) Correlation between indicator and trend headline CPI inflation
Easy for public to understand	Judgement based evaluation

Source: IMF CPI Manual (2020)

In addition, Holden R. (2006) outlines some properties of a good core inflation measure:

- Simple and easy to understand
- Picks up persistent changes in inflation.
- Leading or being coincident with measured inflation (i.e., not lagging measured inflation);

- Unbiased indication of measured inflation, that is, unbiasedness over the long sample period.
- Smoothness (e.g., having a low variance); and
- Low prediction error for measured inflation.

CHAPTER THREE: CORE INFLATION

3.1 Computation of a core inflation measure for Kenya

The KNBS currently publishes a measure of headline inflation. However, headline inflation contains price changes of some items that are subject to volatility from time to time due to various factors such as weather changes, shocks in the global economy, and other supply side factors. Thus, core inflation measures are designed to yield a relatively more stable measure of inflation that abstracts from the impact of these shocks.

To calculate the core inflation, we use the elementary CPI dataset of 330 items used by the KNBS for computing the headline CPI. After generation of the core CPI sub-basket, core inflation is then calculated based on annual, monthly or quarterly changes in the sub-basket index. The actual share of the core CPI sub-basket is 81.1 per cent as presented in **Table 3.1.**

Table 3.1: Core CPI Weights by COICOP Divisions

COICOP Divisions	Core	Non Core	Total weight
Food and Non-Alcoholic Beverages	21.2575	11.6520	**32.9096**
Alcoholic Beverages, Tobacco and Narcotics	3.3287	0.0000	**3.3287**
Clothing and Footwear	2.9915	0.0000	**2.9915**
Housing, Water, Electricity, Gas and Other Fuels	9.6902	4.9223	**14.6125**
Furnishings, Household Equipment and Routine Household	3.7372	0.0000	**3.7372**
Health	2.9115	0.0000	**2.9115**
Transport	7.2994	2.3473	**9.6468**
Information and Communication	7.7841	0.0000	**7.7841**
Recreation, Sport and Culture	1.7219	0.0000	**1.7219**
Education Services	5.5617	0.0000	**5.5617**
Restaurants and Accommodation Services	8.0991	0.0000	**8.0991**
Insurance and Financial Services	2.2423	0.0000	**2.2423**
Personal Care, Social Protection and Miscellaneous Goods	4.4532	0.0000	**4.4532**
Total	**81.0784**	**18.9216**	**100.0000**

The current proxy for core inflation used by the CBK, i.e. the non-food non-fuel (NFNF) inflation, has 200 items which constitutes 53.4 percent of the overall CPI basket. Hence, the new measure of core inflation constitutes a larger share of the overall CPI basket, and thus, provides a better capture of inflation dynamics.

The process of computing a core inflation measure for Kenya followed a two-step procedure. In the first step, the EAC guidelines for computation of harmonized CPIs for the EAC countries were used to identify the items to be excluded. This generated an initial core CPI basket of 280 items with a weight of 83.1 per cent. However, in addition to the list of recommended products, each EAC Partner State is supposed to determine additional CPI items to be excluded during the computation of the core index, based on measures of persistence and volatility of monthly consumer prices. Therefore, in the second step, robust statistical methods of assessing volatility such as standard deviations were applied to determine additional items in the CPI basket to be included/excluded from the computation of the core inflation basket. After subjecting the commodity indices to these statistical measures, a selection criterion was determined whereby commodities with standard deviation above 25 were considered to be too volatile and excluded from the core CPI basket. For robustness, the standard deviations were computed over different time periods, while including and excluding outlier years that were characterised with severe shocks such as COVID-19 pandemic, drought, etc. Consequently, using historical trends, standard deviations and coefficient of variations, 5 additional items were

identified and excluded[5] in the computation of core inflation for Kenya. Therefore, the total core CPI basket constitutes 275 items and has a weight of 81.1 per cent. This is a more representative basket for the computation of core inflation.

3.2 Relationship between Core Inflation and Headline Inflation

An examination of the relationship between headline and core inflation yields the following observations: The new measure of core inflation depicts close co-movement with headline inflation **(Figure 3.1).**

Figure 3.1: Core and Headline Inflation
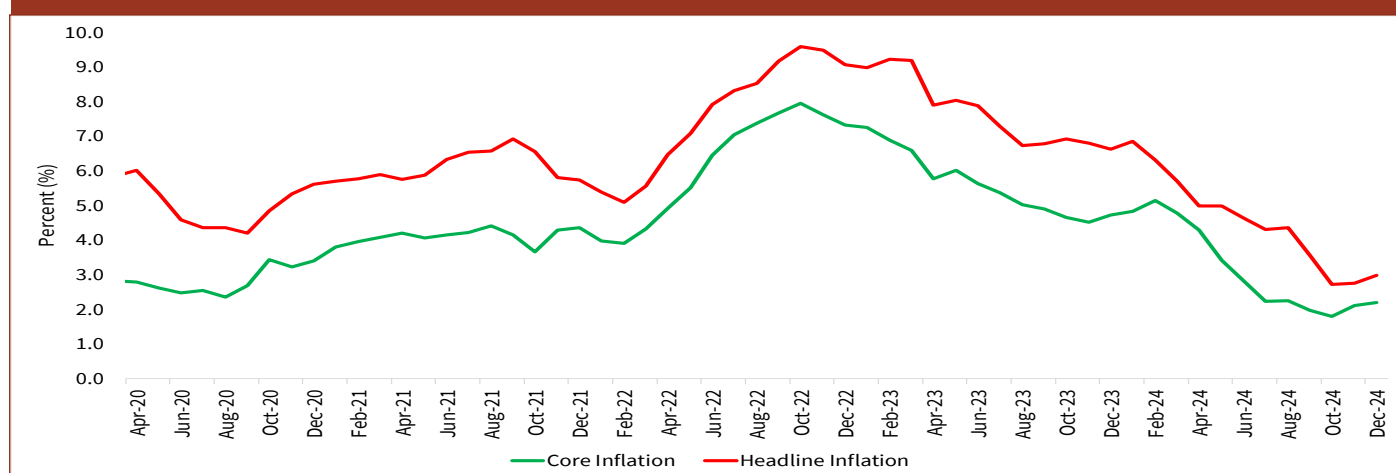
The core measure of inflation is in general, higher than NFNF inflation, though the data series show a convergence in May 2024 **(Figure 3.2)**. The observed trend is expected given the higher weight of core CPI following inclusion of more items in the CPI basket compared to NFNF. The convergence in May 2024 is mainly attributable to the notable decline in the prices of some of the key items included in core CPI basket in May.

Figure 3.2: Core and NFNF Inflation

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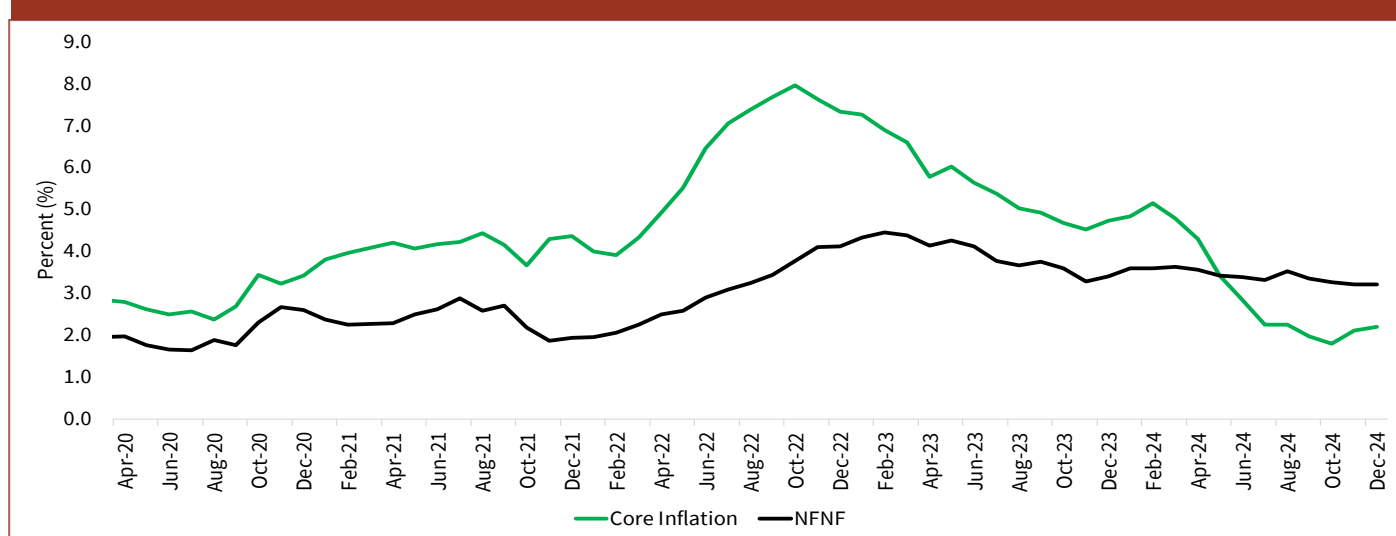
[5] These five items are maize flour (loose), omena, dried/smoked fish, country bus fares, and local flights.

A comparison of headline, core and NFNF inflation trends shows the new generated core inflation measure is more aligned to the headline inflation compared to NFNF inflation **(Figure 3.3).**

Figure 3.3: Evolution of Headline, Core and NFNF Inflation

Core, NFNF vs Headline Inflation
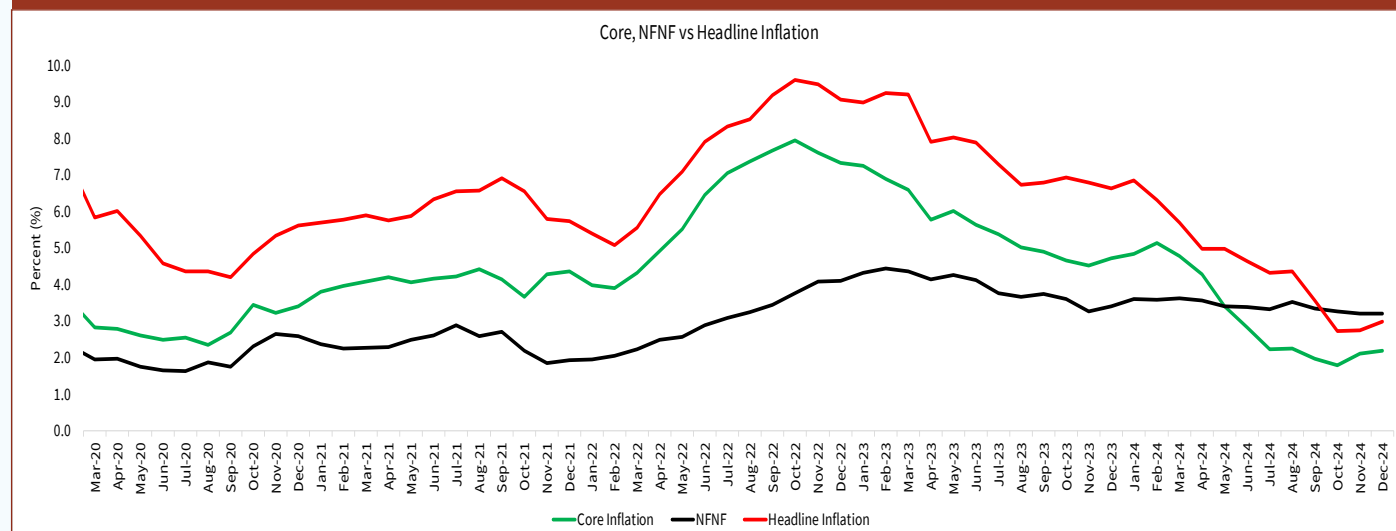
Consistent with the desired characteristics, the deviations of the core inflation measure from headline inflation are less volatile compared to the deviations of NFNF inflation from headline inflation **(Figure 3.4).**

Figure 3.4: Deviation of Core and NFNF inflation from headline inflation
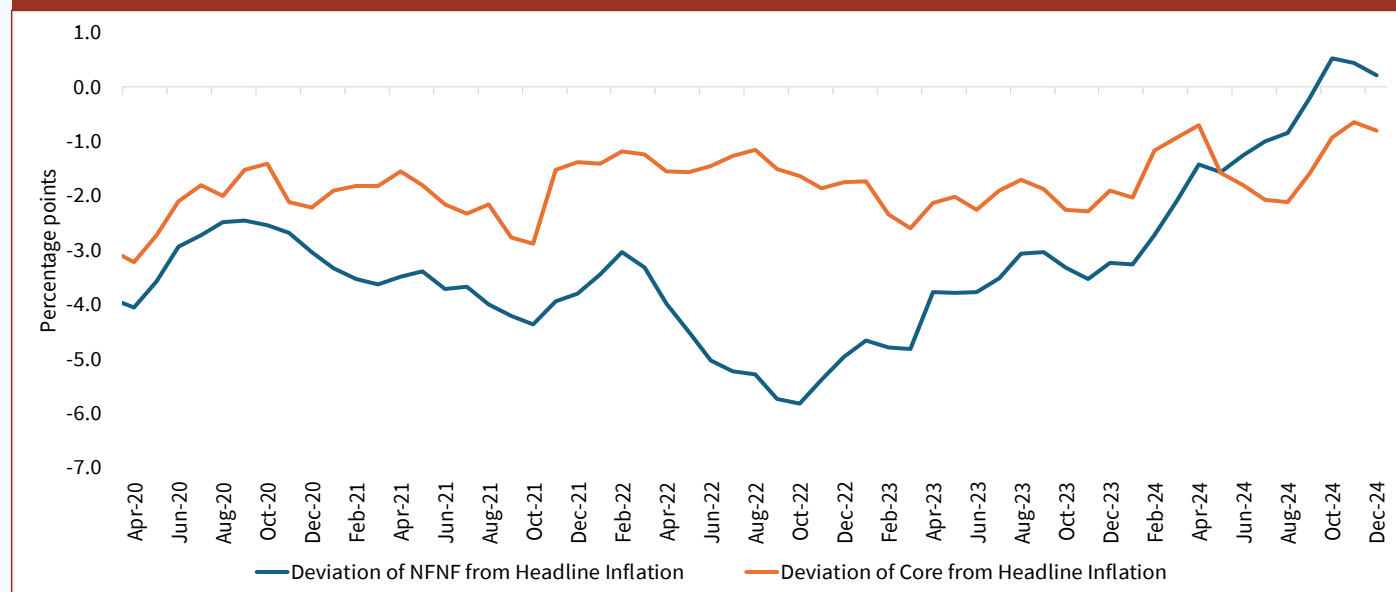
CHAPTER FOUR: NON-CORE INFLATION

4.1 Computation of the non-core inflation measure

The non-core CPI index comprises goods and services whose prices are susceptible to short-term shocks and are, therefore, volatile. It is computed from the elementary goods and services items excluded from the CPI basket in the computation of the core index **(Table 4.2a, 4.2b and 4.2c1).**

The excluded items that constitute non-core CPI/inflation measure were generated in two steps. First, the list of items recommended for exclusion in the computation of core under the EAC guidelines for computation of harmonized CPIs for the Partner States was used to identify specific elementary items to be excluded. Based on this approach, 50 items were excluded to generate the non-core CPI basket with a weight of 16.9 per cent. The second step involved application of robust statistical methods of assessing volatility in order to determine additional products to be excluded. After subjecting the commodity indices to various statistical measures of volatility and based on the criterion that commodities with a standard deviation above 25 be excluded, 5 items were further excluded, bringing the total number of items in the non-core index to 55 items. These items constitute a weight of 18.92 percent of the overall CPI basket **(Table 4.1).**

Table 4.1: Summary of Weights for Core and Non-core indices

Summary Contributions	Contributions (pp)
Overall Inflation	**100.0000**
1. Core	81.0784
2. Non-Core	18.9216
Food Crops and Related Items	11.6520
Energy Fuel and Utilities (EFU)	6.2426
Transport	1.0271

4.2 Sub-Categories of the Non-Core Index

The excluded (non-core) CPI items fall under the following three sub-categories:

i. Food Crops and Related Items

These mainly comprise unprocessed food items, both vegetables and non-vegetables. These items are all derived from the Food and Non-Alcoholic Beverages category of the CPI basket and constitute 11.7 percent out of the 32.6 percent weight of this category **(Table 4.2a).**

ii. Energy, Fuels and Utilities

This sub-category comprises fuel items (petrol, diesel, kerosene), other energy items (firewood, charcoal, and liquefied petroleum gas/LPG), and utilities (electricity and water) **(Table 4.2b).** The items in this sub-category are obtained from the following categories of the CPI basket:

• Housing, Water, Electricity, Gases and Other Fuels – electricity, liquefied petroleum gas (LPG), kerosene/paraffin, firewood, charcoal, water from water service providers, and water from vendors. These items constitute 4.9 percent out of the 14.6 percent weight of this category.

• Transport – petrol and diesel. These items constitute 1.3 percent out of the 9.6 percent weight of this category.

iii. Transport

The non-core items under this category comprises two items, namely country bus fares and local flights.

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[6] These five items are maize flour (loose), omena, dried/smoked fish, country bus fares, and local flights.

These items were excluded from computation of core inflation due to their relatively high volatility levels. They are derived from the Transport category of the CPI basket and constitute 1.03 percent out of the 9.6 percent weight **(Table 4.2c).**

Table 4.2a: Food crops and related items

country	S/no	COICOP	ename	Weight
Kenya	5	01.1.1.1.5	Maize Grain - Loose	0.6031
Kenya	6	01.1.1.1.6	Green Maize	0.0768
Kenya	7	01.1.1.1.7	Green Maize- Loose	0.0188
Kenya	10	01.1.1.2.1	Maize Flour - Loose	0.4344
Kenya	33	01.1.3.2.1	Dried/Smoked Fish (Excluding Omena)	0.3001
Kenya	34	01.1.3.2.2	Omena	0.2853
Kenya	36	01.1.4.1.1	Fresh unpacketed cow milk / Fresh Cream	1.6985
Kenya	37	01.1.4.1.2	Goat Milk	0.0355
Kenya	38	01.1.4.1.3	Camel Milk	0.0065
Kenya	49	01.1.6.1.1	Ripe Bananas	0.5025
Kenya	50	01.1.6.1.2	Mangoes	0.1738
Kenya	51	01.1.6.1.3	Avocado	0.2499
Kenya	52	01.1.6.1.4	Paw paws	0.0177
Kenya	53	01.1.6.1.6	Pineapples	0.0169
Kenya	54	01.1.6.1.7	Passion	0.0033
Kenya	55	01.1.6.1.8	Tree Tomato	0.0013
Kenya	56	01.1.6.1.9	Coconut	0.0348
Kenya	57	01.1.6.2.1	Oranges	0.3459
Kenya	58	01.1.6.2.2	Lemons	0.0035
Kenya	59	01.1.6.3.1	Apples	0.1693
Kenya	60	01.1.6.5.2	Melons	0.3670
Kenya	61	01.1.6.8.1	Groundnuts	0.1188
Kenya	62	01.1.7.1.1	Spinach	0.2465
Kenya	63	01.1.7.1.2	Kale-Sukuma Wiki	0.5742
Kenya	64	01.1.7.1.4	Traditional Vegetables	0.4028
Kenya	65	01.1.7.1.5	Cabbages	0.3730
Kenya	66	01.1.7.2.1	Tomatoes	1.3058
Kenya	67	01.1.7.2.2	Capsicums (Pilipili Hoho)	0.0306
Kenya	68	01.1.7.2.5	Pumpkins/Butter Nut	0.0017
Kenya	69	01.1.7.3.1	Peas (Garden, Snap, Snow)	0.0221
Kenya	70	01.1.7.4.1	Carrots	0.1705
Kenya	71	01.1.7.4.3	Onion -Leeks and Bulbs	0.6458
Kenya	72	01.1.7.5.1	Cooking bananas	0.1711
Kenya	73	01.1.7.5.2	Potatoes (Irish)	0.7482
Kenya	74	01.1.7.5.3	Sweet Potato	0.1731
Kenya	75	01.1.7.5.4	Arrow Roots-Nduma	0.0731
Kenya	76	01.1.7.5.6	Cassava	0.0007
Kenya	77	01.1.7.6.1	Beans	0.7163
Kenya	78	01.1.7.6.2	Green grams	0.2967
Kenya	79	01.1.7.6.3	Dolicos (Njahi)	0.0261
Kenya	80	01.1.7.6.4	Peas	0.1178
Kenya	81	01.1.7.6.5	Cowpeas	0.0042
Kenya	83	01.1.7.9.6	Dried Cassava	0.0020
Kenya	91	01.1.9.4.7	Coriander Leaves (Dania)	0.0863
Food Crops and Related Items				**11.6520**

Table 4.2b: Energy, Fuel and Utilities (EFU) items

country	S/no	COICOP	ename	Weight
Kenya	231	07.2.2.1.1	Petrol	1.2003
Kenya	232	07.2.2.1.2	Diesel	0.1200
Fuel				**1.3203**
Kenya	159	04.5.1.0.1	Electricity	1.2656
Kenya	160	04.5.2.2.1	Gas/LPG	1.1601
Kenya	161	04.5.3.0.1	Kerosene/Paraffin	0.5573
Kenya	162	04.5.4.2.1	Firewood	0.1462
Kenya	163	04.5.4.3.1	Charcoal	0.8649
Electricity Gas and Other Fuels				**3.9942**
Kenya	155	04.4.1.1.1	Water- Water Service Provider (WSP)	0.5165
Kenya	156	04.4.1.2.1	Water- Vendors	0.4116
Utilities				**0.9281**
Energy Fuel and Utilities (EFU)				**6.2426**

Table 4.2c: Transport items

country	S/no	COICOP	ename	Weight
Kenya	242	07.3.2.1.2	Country Bus /Matatu Fare (town to another town)	0.9134
Kenya	248	07.3.3.1.1	Local Flights	0.1136
Transport				**1.0271**

CHAPTER FIVE: CONCLUSION

This report documents the computation of core and non-core inflation measures for Kenya. By defining the core inflation measure, non-core inflation is likewise obtained since both sum up to headline inflation. Based on other countries experiences, the exclusion approach remains the most commonly used measure of core inflation globally. Thus, the measure of core inflation for Kenya was based on the exclusion approach, in line with the EAC guidelines. As a starting point, the EAC guidelines were used to identify items for exclusion. Further to the recommended items by the guidelines, additional items were identified through robust checks and statistical methods based on standard deviation measures.

Tests conducted on the derived core inflation measure satisfies the various criteria for a good core inflation measure. Indeed, the computed core inflation is less volatile than headline inflation and depicts close co-movement with headline inflation. It is, therefore, likely to be a relatively robust predictor of future headline inflation.

In conclusion, given the evolution of the Kenyan economy in the last two decades and following the adoption of the inflation targeting framework by the Central Bank of Kenya, the computed core inflation measure will play an important role as an indicator of price developments and changes in underlying demand pressures. It will, therefore, play a critical role in informing the monetary policy process. The decomposition of headline inflation into core and non-core inflation measures is also bound to be relevant to other stakeholders. Just like the headline CPI, the core index is subject to review whenever the KNBS revises or updates the overall CPI basket for Kenya.

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ANNEXES

NB: Annexes with the time series to be included as a link to the KNBS website.

Table 1: List of Core CPI Items

S/No	COICOP	eaname	Weight(whole list)	Weight in Core
1	01.1.1.1.1	Aromatic Unbroken Rice (Pishori/Basmati e.t.c)	0.5601	0.6908
2	01.1.1.1.2	Non Aromatic (Unbroken) White Rice	1.1522	1.4211
3	01.1.1.1.3	Broken white rice (Aromatic or Non Aromatic)	0.3743	0.4617
4	01.1.1.1.4	Brown Rice	0.0388	0.0478
8	01.1.1.1.8	Wimbi (Grain and Flour)	0.0446	0.0550
9	01.1.1.1.9	Sorghum (Grain and Flour)	0.0022	0.0027
11	01.1.1.2.2	Maize Flour - Sifted	0.7343	0.9057
12	01.1.1.2.3	Fortified Maize flour	0.7222	0.8907
13	01.1.1.2.4	Mixed and fortified Porridge Flour joined	0.2441	0.3011
14	01.1.1.2.5	Wheat Flour-White	0.8960	1.1051
15	01.1.1.2.6	Wheat Flour-Brown	0.0017	0.0020
16	01.1.1.3.1	White bread	1.6674	2.0565
17	01.1.1.3.2	Brown Bread	0.2487	0.3068
18	01.1.1.3.3	Wheat Buns /Scones	0.3800	0.4686
19	01.1.1.3.4	Cakes	0.3446	0.4250
20	01.1.1.3.5	Biscuits	0.0454	0.0560
21	01.1.1.4.1	Breakfast Cereal/Oats	0.0505	0.0623
22	01.1.1.5.1	Pasta (Spaghetti, Macaroni, Noodles e.g. Indomie)	0.2250	0.2775
23	01.1.2.2.1	Beef - With Bones	2.8046	3.4592
24	01.1.2.2.2	Beef - Without Bones	0.2354	0.2904
25	01.1.2.2.3	Pork	0.0818	0.1009
26	01.1.2.2.4	Mutton/Goat Meat	0.6006	0.7408
27	01.1.2.2.5	Chicken Meat (Broiler, Kienyeji)	0.6014	0.7417
28	01.1.2.2.7	Camel Meat	0.0280	0.0346
29	01.1.2.4.1	Offals (Matumbo, Liver and Kidney)	0.3119	0.3847
30	01.1.2.5.1	Sausages/Smokies/Hot dog	0.1137	0.1402
31	01.1.3.1.1	Fresh Fish	0.7242	0.8932
32	01.1.3.1.2	Frozen Fish Fillets	0.0067	0.0083
35	01.1.3.6.1	Tinned Fish	0.0009	0.0011
39	01.1.4.2.1	Fresh packeted cow milk	1.8758	2.3136
40	01.1.4.2.2	UHT- long life Milk	0.2068	0.2550
41	01.1.4.2.3	Fresh Flavoured Packeted cow milk	0.0072	0.0089
42	01.1.4.3.1	Condensed/Powder Milk	0.0963	0.1188
43	01.1.4.6.1	Yoghurt	0.2708	0.3340
44	01.1.4.6.2	Milk Sour - Mala	0.1838	0.2267
45	01.1.4.8.1	Eggs - Exotic/Kienyenji	0.5787	0.7137
46	01.1.5.1.1	Cooking Fat	0.3443	0.4247
47	01.1.5.1.2	Cooking Oil (Salad)	1.1512	1.4198
48	01.1.5.3.1	Margarine	0.2421	0.2986
82	01.1.7.9.3	Cassava flour	0.0007	0.0009
84	01.1.8.1.1	Sugar	1.4348	1.7696
85	01.1.8.3.1	Jam,Marmalade,Honey	0.0836	0.1031
86	01.1.8.9.1	Sweets	0.0068	0.0083
87	01.1.9.2.1	Baby Milk - Tinned	0.0225	0.0277
88	01.1.9.3.1	Common salt	0.0467	0.0576
89	01.1.9.4.2	Food Seasoning (e.g. Royco, Knorr, etc), Vinegar, yeast, chilli,pilau masala	0.0719	0.0887
90	01.1.9.4.3	Ginger-tangawizi/mustard/spices	0.0005	0.0006
92	01.2.1.0.1	Fruit Juice	0.1409	0.1738
93	01.2.2.0.1	Coffee	0.0095	0.0117
94	01.2.3.0.1	Tea Leaves	0.3445	0.4249
95	01.2.4.0.1	Cocoa and Cocoa products	0.0438	0.0541
96	01.2.5.0.1	Mineral Water	0.2361	0.2911
97	01.2.6.0.1	Squashes	0.0030	0.0037
98	01.2.6.0.2	Sodas	0.4919	0.6067

S/No	COICOP	eaname	Weight(whole list)	Weight in Core
99	01.2.9.0.1	Energy/Health Drink	0.0007	0.0009
100	01.3.0.0.1	Cost of Milling	0.1216	0.1500
101	02.1.1.0.1	Spirits	0.8632	1.0646
102	02.1.2.1.1	Wines	0.1217	0.1501
103	02.1.3.0.1	Beer (Lagers,Stouts)	1.8455	2.2762
104	02.1.9.0.1	Traditional beer	0.0842	0.1039
105	02.3.0.1.1	Cigarettes	0.2565	0.3164
106	02.4.0.0.1	Miraa (Khat)	0.1576	0.1944
107	03.1.1.0.1	Material for Clothing	0.1108	0.1367
108	03.1.2.1.1	Men's Coat	0.0045	0.0056
109	03.1.2.1.10	Men's Jacket	0.0053	0.0066
110	03.1.2.1.11	Men's Suit	0.1441	0.1777
111	03.1.2.1.12	Men's Trousers	0.4521	0.5575
112	03.1.2.1.13	Men's Shirt	0.2179	0.2687
113	03.1.2.1.18	Boy's Shirt/ T Shirt	0.0157	0.0194
114	03.1.2.1.23	Boy's Trousers/Shorts	0.2177	0.2684
115	03.1.2.1.6	Men's T-Shirts	0.0040	0.0049
116	03.1.2.1.8	Men's traditional dress	0.0024	0.0030
117	03.1.2.2.1	Women's Trousers	0.0757	0.0933
118	03.1.2.2.11	Kanga /Kikoi	0.0392	0.0483
119	03.1.2.2.17	Women's Suits	0.1049	0.1294
120	03.1.2.2.18	Women's Dress	0.6094	0.7516
121	03.1.2.2.19	Women's Skirts	0.0226	0.0278
122	03.1.2.2.21	Women's Blouses(top)	0.0109	0.0134
123	03.1.2.2.26	Girl's Dress	0.1200	0.1481
124	03.1.2.2.6	Women's Kitenge (African dress)	0.0055	0.0067
125	03.1.2.2.7	Buibui	0.0039	0.0048
126	03.1.2.2.8	Women's Underpants/ Bikers	0.0139	0.0171
127	03.1.2.3.1	Infant's clothing	0.0619	0.0764
128	03.1.2.4.1	Girl's School Uniform	0.1617	0.1994
129	03.1.2.4.2	Boys School uniform	0.0616	0.0760
130	03.1.3.1.5	Headsquare/headscarf/Hijabu	0.0013	0.0016
131	03.1.4.2.1	Tailoring Cost for Clothes/Repair of clothing charge	0.0168	0.0207
132	03.2.1.1.1	Men's Shoes - Leather	0.2967	0.3659
133	03.2.1.1.4	Men's Sports Shoes	0.0130	0.0161
134	03.2.1.1.6	Men's Sandals (Akalas)	0.0007	0.0008
135	03.2.1.2.1	Women's Shoes - Leather	0.1257	0.1550
136	03.2.1.2.2	Women's Shoes - Canvas/Rubber	0.0022	0.0028
137	03.2.1.2.5	Women's Rubber Sandals/Slippers	0.0032	0.0040
138	03.2.1.2.6	Sandals (Akalas)	0.0009	0.0011
139	03.2.1.3.1	Boys' shoes leather	0.0519	0.0640
140	03.2.1.3.2	Girl's Shoes - Leather	0.0109	0.0135
141	03.2.1.3.7	Girl's Sandals (Akalas)	0.0024	0.0029
142	03.2.1.3.9	Boy's Sports Shoes	0.0004	0.0005
143	04.1.1.0.1	Actual monthly house rent - single room	2.8864	3.5600
144	04.1.1.0.2	Actual monthly house rent - double room	0.6581	0.8117
145	04.1.1.0.3	Actual monthly house rent - bed sitter	0.5582	0.6885
146	04.1.1.0.4	Actual monthly house rent - 1 bedroom	1.4400	1.7760
147	04.1.1.0.5	Actual monthly house rent - 2 bedroom	2.3116	2.8511
148	04.1.1.0.6	Actual monthly house rent - 3 bedroom	0.9900	1.2210
149	04.1.1.0.7	Actual monthly house rent -more than 3 bedroom	0.1350	0.1666
150	04.3.1.1.1	Cement	0.3417	0.4215
151	04.3.1.1.2	Plumbing items	0.0116	0.0143
152	04.3.1.1.3	Paint	0.0173	0.0214
153	04.3.1.1.5	Tiles	0.0145	0.0178
154	04.3.2.0.1	Labour charges (Mason, painter,plumber & electrician)	0.2500	0.3083
157	04.4.2.0.1	Garbage and Refuse collection	0.0738	0.0910
158	04.4.3.2.1	Toilet/septic tank emptying	0.0020	0.0024
164	05.1.1.1.4	Side Boards/Wall Units	0.0234	0.0289
165	05.1.1.2.10	Sofa sets	0.3868	0.4771
166	05.1.1.2.11	Chairs	0.0090	0.0110

S/No	COICOP	eaname	Weight(whole list)	Weight in Core
167	05.1.1.2.12	Beds	0.1878	0.2317
168	05.1.1.2.5	Mattresses	0.2937	0.3622
169	05.1.1.2.7	Coffee table	0.0011	0.0013
170	05.2.1.1.1	Curtains And Accessories	0.0215	0.0266
171	05.2.1.2.1	Blankets	0.0796	0.0982
172	05.2.1.2.3	Bed Sheets/Bed covers/Pillow Cases	0.0010	0.0012
173	05.3.1.1.1	Refrigerator/Freezers	0.0170	0.0210
174	05.3.1.1.3	Electric/Gas Cooker/Meko	0.0047	0.0059
175	05.4.0.1.1	Cups /Glasses	0.0328	0.0404
176	05.4.0.1.2	Plates/Bowls	0.0190	0.0235
177	05.4.0.1.3	Cooking Sufurias/Pots	0.0455	0.0561
178	05.4.0.3.3	Buckets/Basins	0.0155	0.0191
179	05.4.0.3.5	Thermos flask	0.0262	0.0323
180	05.4.0.3.6	Plastic containers	0.0047	0.0058
181	05.5.2.1.1	Wheel barrow	0.0006	0.0008
182	05.5.2.1.2	Water tank	0.1175	0.1449
183	05.5.2.1.3	Muttock/Saw/Panga/Axe/Slasher	0.0018	0.0023
184	05.5.2.1.4	Forks/Jembe/Rake/Spade/Muttock/file	0.0048	0.0060
185	05.5.2.2.1	Torches	0.0040	0.0049
186	05.5.2.2.3	Batteries (Dry Cells)	0.0632	0.0779
187	05.5.2.2.4	Solar Lamps	0.0248	0.0306
188	05.5.2.2.6	Electric bulb /Flourescent tubes	0.0740	0.0913
189	05.5.2.2.7	Padlocks	0.0048	0.0060
190	05.6.1.1.1	Laundry Soap/Bar Soap	0.5494	0.6776
191	05.6.1.1.3	Detergents	0.4641	0.5725
192	05.6.1.1.4	Dish Washing Paste/Liquid	0.0006	0.0007
193	05.6.1.1.8	Shoe Polish/Cream	0.0566	0.0698
194	05.6.1.9.2	Match Box	0.0010	0.0012
195	05.6.1.9.3	Candles	0.0101	0.0124
196	05.6.2.1.1	Gardener- full/part time	0.1508	0.1859
197	05.6.2.1.2	Watchman	0.0339	0.0418
198	05.6.2.1.3	Domestic servants	0.9946	1.2268
199	05.6.2.1.4	Drivers	0.0112	0.0138
200	06.1.1.1.1	Dewormers	0.0151	0.0186
201	06.1.1.1.10	Medicine for cancer	0.0684	0.0844
202	06.1.1.1.11	Medicine for asthma	0.0120	0.0148
203	06.1.1.1.12	Liver Salts And Other Anti-Acids	0.0044	0.0055
204	06.1.1.1.13	Eye care medicine	0.0118	0.0146
205	06.1.1.1.2	Anti- typhoid, amoebicides	0.0340	0.0419
206	06.1.1.1.21	Cold Tablets/Cough Syrup/Tonics	0.0483	0.0595
207	06.1.1.1.26	Anti-Malaria drugs	0.1655	0.2041
208	06.1.1.1.4	Fever/Pain Killers e.g. Paracetamol	0.2497	0.3079
209	06.1.1.1.5	Antibiotics	0.0784	0.0967
210	06.1.1.1.6	Medicines for cholesterol and Blood pressure	0.2348	0.2896
211	06.1.1.1.8	Medicines for diabetes	0.1504	0.1855
212	06.1.1.2.1	Herbal Medicine	0.0033	0.0041
213	06.1.2.1.2	High blood pressure apparatus	0.0003	0.0004
214	06.1.3.1.1	Spectacles/Spectacle frames/Contact lens	0.0478	0.0589
215	06.2.1.9.1	Herbalist/Faith healer /Traditional doctor's service	0.0024	0.0029
216	06.2.2.1.1	Dental fees- tooth extracting, filling & root canal	0.0481	0.0593
217	06.2.3.1.1	General Practitioner's services	1.1677	1.4402
218	06.2.3.1.3	Gynaecological services	0.0067	0.0083
219	06.2.3.1.5	Radiologist's services	0.0008	0.0009
220	06.3.1.0.1	Delivery charges	0.2000	0.2466
221	06.3.1.0.2	Inpatient fees (Room, bed, Rehabilitation, and other charges)- Private/Public	0.1205	0.1487
222	06.4.1.0.1	X-Rays/Scan	0.0355	0.0438
223	06.4.1.0.2	Laboratory Tests	0.2054	0.2533
224	06.4.2.0.1	Ambulance Charges	0.0004	0.0005
225	07.1.1.1.1	Car for personal use	1.2534	1.5459
226	07.1.1.1.2	Pick-Up for personal use	0.0026	0.0032
227	07.1.2.0.1	Motorcycle for personal use	0.2025	0.2497
228	07.1.3.0.1	Bicycle/Tricycles for personal use	0.0348	0.0429
229	07.2.1.1.1	Motor vehicle tyres/ tubes	0.0138	0.0170
230	07.2.1.2.2	Car battery	0.0035	0.0043

S/No	COICOP	eaname	Weight(whole list)	Weight in Core
233	07.2.2.4.1	Engine oil	0.0472	0.0582
234	07.2.3.0.1	Puncture repair/Wheel alignment and balancing	0.0055	0.0068
235	07.2.3.0.2	Regular motor vehicle service and repair	0.5165	0.6371
236	07.2.3.0.3	Car wash	0.0384	0.0473
237	07.2.4.1.1	Parking fees	0.0261	0.0322
238	07.2.4.3.1	Driving license (renewal)	0.0994	0.1226
239	07.2.4.3.2	Driving lessons	0.2031	0.2505
240	07.2.4.4.1	Car rental	0.0013	0.0016
241	07.3.2.1.1	City Bus/Matatu Fares (Town and Environs	3.1608	3.8985
243	07.3.2.2.1	Taxi Fare	0.1970	0.2430
244	07.3.2.3.1	School bus charges_Primary/Secondary	0.0572	0.0706
245	07.3.2.9.1	Boda Boda Fares (Motor cycle)	0.7517	0.9272
246	07.3.2.9.2	Boda Boda Fares (Bicycle)	0.0009	0.0012
247	07.3.2.9.3	Tuk tuk fares	0.0524	0.0647
249	07.3.3.2.1	International Flights	0.6161	0.7599
250	07.3.4.0.1	Ferry/Boat Fares	0.0008	0.0010
251	07.4.1.1.2	Post Office Private Rental Box	0.0020	0.0024
252	07.4.1.2.1	Courier services	0.0123	0.0152
253	08.1.2.0.1	Mobile Handset-basic/smartphone	0.5870	0.7240
254	08.1.3.1.1	Computer (Laptop)	0.2326	0.2869
255	08.1.3.1.2	Computer (Tablet)	0.0012	0.0015
256	08.1.4.0.3	Woofers/speakers/tuitors	0.0045	0.0055
257	08.1.4.0.6	Television	0.3061	0.3775
258	08.1.4.0.7	Antennae (aerial) /Satellite/Decoder	0.0418	0.0516
259	08.3.2.0.1	Mobile Phone Airtime	5.4960	6.7786
260	08.3.3.0.1	Internet Costs	0.3224	0.3976
261	08.3.5.0.1	Repair of radio, TV, Computer and related items	0.1355	0.1672
262	08.3.9.2.1	TV subscription fees (private)(e.g. DSTV)	0.6569	0.8101
263	09.3.1.1.1	Toys and Games	0.0049	0.0060
264	09.2.2.2.2	Purchase/Hire of tent	0.0087	0.0108
265	09.3.4.1.2	Foodstuff for pets	0.0031	0.0038
266	09.4.5.0.1	Treatment/Vaccination/Castration /Deworming of pets	0.0039	0.0048
267	09.4.6.2.1	Club Membership Fees	0.0019	0.0024
268	09.6.1.0.1	Entry Fees (Cinema, Disco/Night Club /Theatre/concert Traditional Dances)	0.0005	0.0006
269	09.6.2.0.1	Museum, Game Park, historical site Entry Fees	0.1398	0.1724
270	09.7.1.1.1	School textbooks- pre primary and primary	0.4061	0.5008
271	09.7.1.1.2	School textbooks- secondary	0.4081	0.5033
272	09.7.1.1.3	School textbooks- tertiary	0.0822	0.1014
273	09.7.1.1.4	Religious books	0.0076	0.0094
274	09.7.2.1.1	Newspapers	0.1236	0.1524
275	09.7.4.0.2	Exercise Books	0.2593	0.3198
276	09.7.4.0.3	Pencils/Pens/Ink/ Erasers/Book covers	0.0180	0.0222
277	09.8.0.0.1	Tour/Honey moon packages	0.2544	0.3137
278	10.1.0.1.1	Pre-primary tuition	0.3834	0.4729
279	10.1.0.2.1	Private tuition-Primary	1.2270	1.5133
280	10.2.0.0.1	Private secondary tuition	1.5708	1.9374
281	10.3.0.0.1	Certificate course(s) fees	0.0855	0.1055
282	10.3.0.0.2	Vocational Training e.g Mechanics, Carpentry, Tailoring, Adult Education	0.0014	0.0018
283	10.4.0.0.1	Diploma fees	0.5995	0.7394
284	10.4.0.0.2	Undergraduate fees	1.4186	1.7496
285	10.4.0.0.3	Post graduate fees	0.2755	0.3398
286	11.1.1.1.1	Hotel and restaurant prepared foods	2.8485	3.5132
287	11.1.1.1.2	Hotel and restaurant beverages	0.6906	0.8518
288	11.1.1.1.3	Hotel and restaurant cakes and snacks	0.0642	0.0792
289	11.1.1.2.1	Cafe and take-aways: prepared Food	0.4310	0.5316
290	11.1.2.1.1	Food from Canteen/Kiosks	0.7599	0.9373
291	11.1.2.1.2	Food From Vendors	0.8631	1.0645
292	11.2.0.1.1	Hotel boarding	1.4394	1.7753
293	11.2.0.1.2	Lodging/Guest expenses	0.8613	1.0624
294	11.2.0.3.1	Primary school boarding fees	0.0100	0.0123
295	11.2.0.3.2	Secondary school boarding fees	0.0777	0.0958
296	11.2.0.3.3	Post-Secondary school boarding fees	0.0030	0.0037
297	11.2.0.3.4	University boarding fees	0.0503	0.0621

S/No	COICOP	eaname	Weight(whole list)	Weight in Core
298	12.1.2.0.1	Medical insurance	0.6607	0.8149
299	12.1.4.1.1	Motor vehicle Insurance	1.0970	1.3530
300	12.1.9.0.1	Education Insurance	0.0453	0.0558
301	12.2.2.0.1	Bankers Cheque charges	0.0011	0.0013
302	12.2.2.0.3	ATM and other bank Charges	0.0138	0.0170
303	12.2.9.9.1	Mobile Money Transfer Charges	0.4244	0.5234
304	13.1.1.1.1	Hair drier	0.0155	0.0191
305	13.1.1.1.2	Electric shaver	0.0019	0.0023
306	13.1.2.0.1	Napkins/diapers/pullups for infants	0.2390	0.2947
307	13.1.2.0.11	Sanitary towels/ tampons/ Cotton Wool/ panty liners	0.2294	0.2830
308	13.1.2.0.13	Toilet Paper/Tissue paper	0.2715	0.3349
309	13.1.2.0.16	Tooth paste/mouth wash	0.2555	0.3151
310	13.1.2.0.18	Toilet Soap	0.2633	0.3247
311	13.1.2.0.19	Petroleum Jelly	0.1931	0.2382
312	13.1.2.0.20	Hair Oil/cream	0.0627	0.0773
313	13.1.2.0.21	Weaves, Wigs and Hairpiece	0.2010	0.2479
314	13.1.2.0.4	Perfume	0.1661	0.2049
315	13.1.2.0.6	After Shave Lotion	0.0003	0.0004
316	13.1.2.0.7	Body Lotion	0.2487	0.3067
317	13.1.2.0.8	Shampoo/Conditioner	0.0021	0.0025
318	13.1.3.1.1	Hair Dressing	1.2733	1.5705
319	13.1.3.2.1	Barber services	0.3649	0.4500
320	13.2.1.1.1	Jewellery	0.0029	0.0036
321	13.2.1.1.2	Watches/Clocks	0.0124	0.0152
322	13.2.9.1.10	Coffin, Funeral Urns, And Tombstones	0.0386	0.0476
323	13.2.9.1.2	Handbags (Ladies)	0.2413	0.2976
324	13.2.9.1.3	School bag	0.1333	0.1644
325	13.2.9.1.4	Suit/Brief case & Travel Bags	0.0539	0.0664
326	13.2.9.1.6	Baby carriage	0.0005	0.0006
327	13.2.9.1.8	Umbrellas	0.0055	0.0068
328	13.9.0.9.1	Legal Services fees	0.0484	0.0597
329	13.9.0.9.3	Photocopying/ Scanning/ Typing	0.1237	0.1526
330	13.9.0.9.8	Passport / Visa / ID / Good conduct certificate fees	0.0046	0.0056

Table 2: List of Non-Core CPI Items

S/No	COICOP	eaname	Weight(whole list)	Weight in Non Core
5	01.1.1.1.5	Maize Grain - Loose	0.6031	3.1872
6	01.1.1.1.6	Green Maize	0.0768	0.4059
7	01.1.1.1.7	Green Maize- Loose	0.0188	0.0992
10	01.1.1.2.1	Maize Flour - Loose	0.4344	2.2959
33	01.1.3.2.1	Dried/Smoked Fish (Excluding Omena)	0.3001	1.5860
34	01.1.3.2.2	Omena	0.2853	1.5078
36	01.1.4.1.1	Fresh unpacketed cow milk / Fresh Cream	1.6985	8.9762
37	01.1.4.1.2	Goat Milk	0.0355	0.1874
38	01.1.4.1.3	Camel Milk	0.0065	0.0342
49	01.1.6.1.1	Ripe Bananas	0.5025	2.6556
50	01.1.6.1.2	Mangoes	0.1738	0.9184
51	01.1.6.1.3	Avocado	0.2499	1.3208
52	01.1.6.1.4	Paw paws	0.0177	0.0938
53	01.1.6.1.6	Pineapples	0.0169	0.0893
54	01.1.6.1.7	Passion	0.0033	0.0176
55	01.1.6.1.8	Tree Tomato	0.0013	0.0068
56	01.1.6.1.9	Coconut	0.0348	0.1838
57	01.1.6.2.1	Oranges	0.3459	1.8280
58	01.1.6.2.2	Lemons	0.0035	0.0185
59	01.1.6.3.1	Apples	0.1693	0.8948
60	01.1.6.5.2	Melons	0.3670	1.9393
61	01.1.6.8.1	Groundnuts	0.1188	0.6276
62	01.1.7.1.1	Spinach	0.2465	1.3029
63	01.1.7.1.2	Kale-Sukuma Wiki	0.5742	3.0345
64	01.1.7.1.4	Traditional Vegetables	0.4028	2.1288
65	01.1.7.1.5	Cabbages	0.3730	1.9711
66	01.1.7.2.1	Tomatoes	1.3058	6.9009
67	01.1.7.2.2	Capsicums (Pilipili Hoho)	0.0306	0.1617
68	01.1.7.2.5	Pumpkins/Butter Nut	0.0017	0.0091
69	01.1.7.3.1	Peas (Garden, Snap, Snow)	0.0221	0.1169
70	01.1.7.4.1	Carrots	0.1705	0.9010
71	01.1.7.4.3	Onion -Leeks and Bulbs	0.6458	3.4132
72	01.1.7.5.1	Cooking bananas	0.1711	0.9042
73	01.1.7.5.2	Potatoes (Irish)	0.7482	3.9541
74	01.1.7.5.3	Sweet Potato	0.1731	0.9149
75	01.1.7.5.4	Arrow Roots-Nduma	0.0731	0.3862
76	01.1.7.5.6	Cassava	0.0007	0.0036
77	01.1.7.6.1	Beans	0.7163	3.7857
78	01.1.7.6.2	Green grams	0.2967	1.5679
79	01.1.7.6.3	Dolicos (Njahi)	0.0261	0.1382
80	01.1.7.6.4	Peas	0.1178	0.6224
81	01.1.7.6.5	Cowpeas	0.0042	0.0224
83	01.1.7.9.6	Dried Cassava	0.0020	0.0104
91	01.1.9.4.7	Coriander Leaves (Dania)	0.0863	0.4563
155	04.4.1.1.1	Water- Water Service Provider (WSP)	0.5165	2.7297
156	04.4.1.2.1	Water- Vendors	0.4116	2.1754
159	04.5.1.0.1	Electricity	1.2656	6.6887
160	04.5.2.2.1	Gas/LPG	1.1601	6.1311
161	04.5.3.0.1	Kerosene/Paraffin	0.5573	2.9453
162	04.5.4.2.1	Firewood	0.1462	0.7729
163	04.5.4.3.1	Charcoal	0.8649	4.5709
231	07.2.2.1.1	Petrol	1.2003	6.3435
232	07.2.2.1.2	Diesel	0.1200	0.6341
242	07.3.2.1.2	Country Bus /Matatu Fare (town to another town)	0.9134	4.8274
248	07.3.3.1.1	Local Flights	0.1136	0.6005