



NATIONAL BUREAU OF STATISTICS

# Consumer Price Index

## AUGUST 2023

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(BASE PERIOD NOVEMBER 2009 = 100)



**Report Date: September 2023**

**Data Source: National Bureau of Statistics (NBS)**

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## BRIEF METHODOLOGY

The CPI measures the average change over time in the prices of goods and services consumed by people for day-to-day living. The construction of the CPI combines economic theory, sampling, and other statistical techniques using data from other surveys to produce a weighted measure of average price changes in the Nigerian economy. The weighting occurs to capture the importance of the selected commodities in the entire index. The production of the CPI requires the skills of economists, statisticians, computer scientists, data collectors, and others.

Key in the construction of the price index is the selection of the market basket of goods and services. Every month, 10,534 informants spread across the country provide price data for the computation of the CPI. The market items currently comprise 740 goods and services regularly priced. The first stage in the calculation of the CPI is the collection of prices on each item (740 goods and services) from outlets in each sector (rural or urban) for each state. Prices are then averaged for each item per sector across the state. The next step is to use the average price to calculate the basic index for each commodity: The current year price of each commodity is compared with a base year's price to obtain a relative price.

Next, we use the Laspeyres formula to compute an aggregated index for each class (which has a multitude of commodities that have similar consumption purposes): Here the sum of the product of weights (obtained from the expenditure survey) and relative prices for each item is divided by the sum of the weight of the items in that class, and the result multiplied by 100 gives the required index number. This index number is still classified according to the urban and rural sectors for each of the 36 states

and the FCT. This yields 85 classes then 48 groups which are then reclassified into 12 Divisions to derive:

1. The Country Composite Index

2. The Urban National Index
3. The Rural National Index
4. The Combined Urban and Rural State Composite Index

The survey methodology generates 3774 all-items indices for all states and the FCT.

This edition of the Statistical News contains the revised Consumer Price Index (CPI) based on Nigeria Living Standard Survey (NLSS) 2003/2004. The consumption expenditure data were re-valued to November 2009, which is the base period for the revised CPI.

The May 2003 and September 1985-based indices are being continued using factors derived from the new CPI. These indices will yield the same price change for any commodity group contained in all the series.

A new sub-index Imported Food Index- is available in the revised CPI.

Note: The urban and rural indices were weighted with the ratio of their populations to the national i.e., 0.455 and 0.545 respectively to compute the composite indices at the 12 Classification of Individual Consumption by Purpose (COICOP) functions and all-items levels. This may cause a variance between a recalculated all items index using the weights and the All-Items index published because the weights were computed only from the consumption expenditure survey result.

**The following breakdown highlights a non-exhaustive list of the components of the current CPI:**



## HOUSING, WATER, ELECTRICITY AND GAS



Actual and imputed rentals for housing



Water supply



Liquid fuel



Electricity



Gas

## FURNISHINGS, HOUSEHOLD EQUIPMENT



Furniture and furnishings



Household textiles



Repair of household appliances



Carpets and other floor coverings



Non-durable household goods

## HEALTH



Pharmaceutical products



Medical services



Dental services



Hospital services



Paramedical services

## TRANSPORT



Motor cars



Motor cycles



Passenger transport by air



Passenger transport by road



Passenger transport by sea and inland waterways

## COMMUNICATION



Postal services



Telephone and telefax equipment



Telephone and telefax services

## RECREATION AND CULTURE



Photographic development



Musical instrument



Recreational and sporting services



Games of chance



Audio-visual, photographic and information processing equipment

## EDUCATION



Books & stationery

## RESTAURANTS AND HOTELS



Accommodation services



Catering services

## MISCELLANEOUS GOODS AND SERVICES



Hairdressing salons and personal grooming establishments



Jewellery, clocks and watches



Appliances, articles and products for personal care



Insurance



Other services

## ALL ITEMS INDEX

In August 2023, the headline inflation rate increased to 25.80% relative to the July 2023 headline inflation rate which was 24.08%. Looking at the movement, the August 2023 headline inflation rate shows an increase of 1.72% points when compared to the July 2023 headline inflation rate.

On a year-on-year basis, the headline inflation rate was 5.27% points higher compared to the rate recorded in August 2022, which was 20.52%. This shows that the headline inflation rate (year-on-year basis) increased in August 2023 when compared to the same month in the preceding year (i.e., August 2022).

The contributions of items on divisional level to the increase in the Headline index are presented below:

| <b>Divisional Level</b>                          | <b>Contribution YoY (%)</b> |
|--|-----------------------------|
| Food & Non-Alcoholic Beverages                   | 13.36                       |
| Housing Water, Electricity, Gas & Other Fuel     | 4.32                        |
| Clothing & Footwear                              | 1.97                        |
| Transport  | 1.68                        |
| Furnishings & Household Equipment & Maintenance. | 1.30                        |
| Education  | 1.02                        |
| Health.  | 0.78                        |
| Miscellaneous Goods & Services                   | 0.43                        |
| Restaurant & Hotels                              | 0.31                        |
| Alcoholic Beverage, Tobacco & Kola               | 0.28                        |
| Recreation & Culture.                            | 0.18                        |
| Communication                                    | 0.18                        |

Similarly, on a month-on-month basis, the headline inflation rate in August 2023 was 3.18%, which was 0.29% points higher than the rate recorded in July 2023 (2.89%). This means that in August 2023, on average, the general price level was 0.29% higher relative to July 2023.

The percentage change in the average CPI for the twelve-month period ending August 2023 over the average of the CPI for the previous twelve-month period was 22.38%, showing a 5.31% increase compared to 17.07% recorded in August 2022.

## **URBAN INFLATION**

On a year-on-year basis, in August 2023, the Urban inflation rate was 27.69%, this was 6.73% points higher compared to the 20.95% recorded in August 2022. On a month-on-month basis, the Urban inflation rate was 3.29% in August 2023, this was 0.24% points higher compared to July 2023 (3.05%). The corresponding twelve-month average for the Urban inflation rate was 23.46% in August 2023. This was 5.87% points higher compared to the 17.59% reported in August 2022.

## **RURAL INFLATION**

The Rural inflation rate in August 2023 was 24.10% on a year-on-year basis; this was 3.98% points higher compared to the 20.12% recorded in August 2022. On a month-on-month basis, the Rural inflation rate in August 2023 was 3.08%, up by 0.34% points compared to July 2023 (2.74%). The corresponding twelve-month average for the Rural inflation rate in August 2023 was 21.39%. This was 4.81% points higher compared to the 16.58% recorded in August 2022.



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# HEADLINE CPI IN AUGUST 2023 ROSE BY

**25.80%**

**YEAR-ON-YEAR**

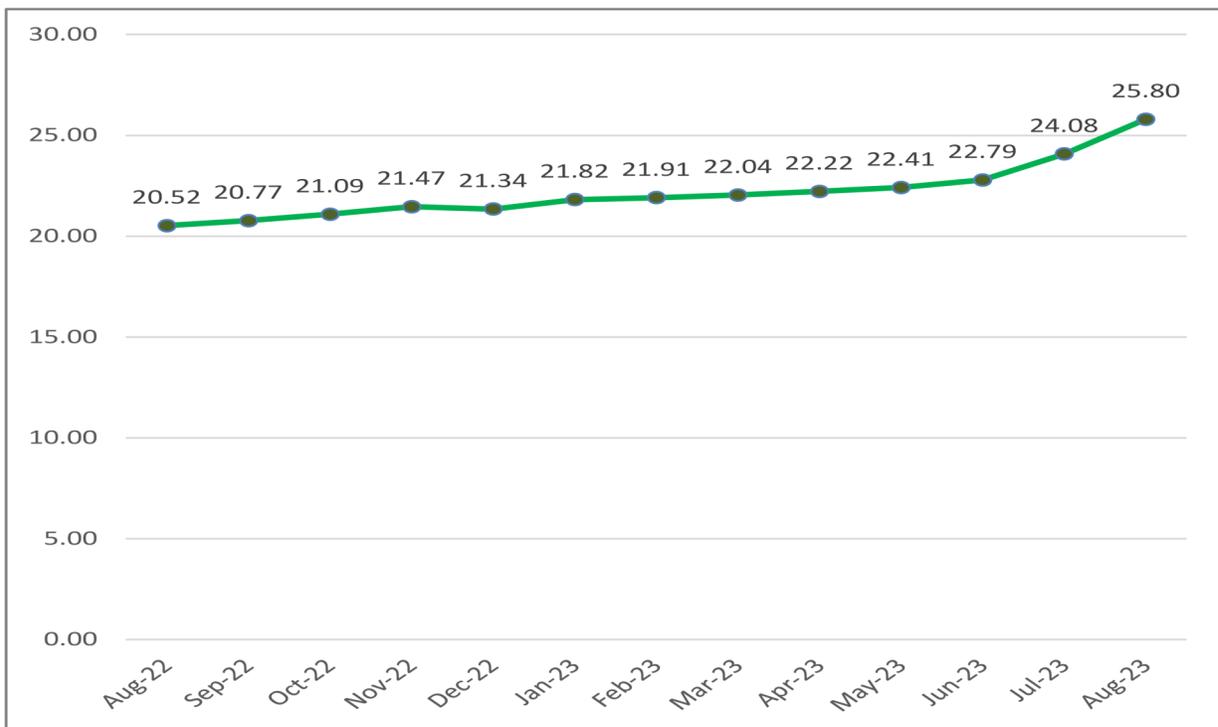
**(FROM 20.52% IN AUGUST 2022)**

**3.18%**

**MONTH-ON-MONTH**

**(FROM 2.89% IN JULY 2023)**

## CPI (%) HEADLINE 12-MONTH SERIES



The CPI (Consumer Price Index) measures the average change over time in prices of goods and services consumed by people for day-to-day living i.e, it measures the inflation rate



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## URBAN

**27.69%**

YEAR-ON-YEAR

(FROM 20.95% IN AUGUST 2022)

**3.29%**

MONTH-ON-MONTH

(FROM 3.05% IN JULY 2023)



## URBAN AND RURAL INDEX



## RURAL

**24.10%**

YEAR-ON-YEAR

(FROM 20.12% IN AUGUST 2022)

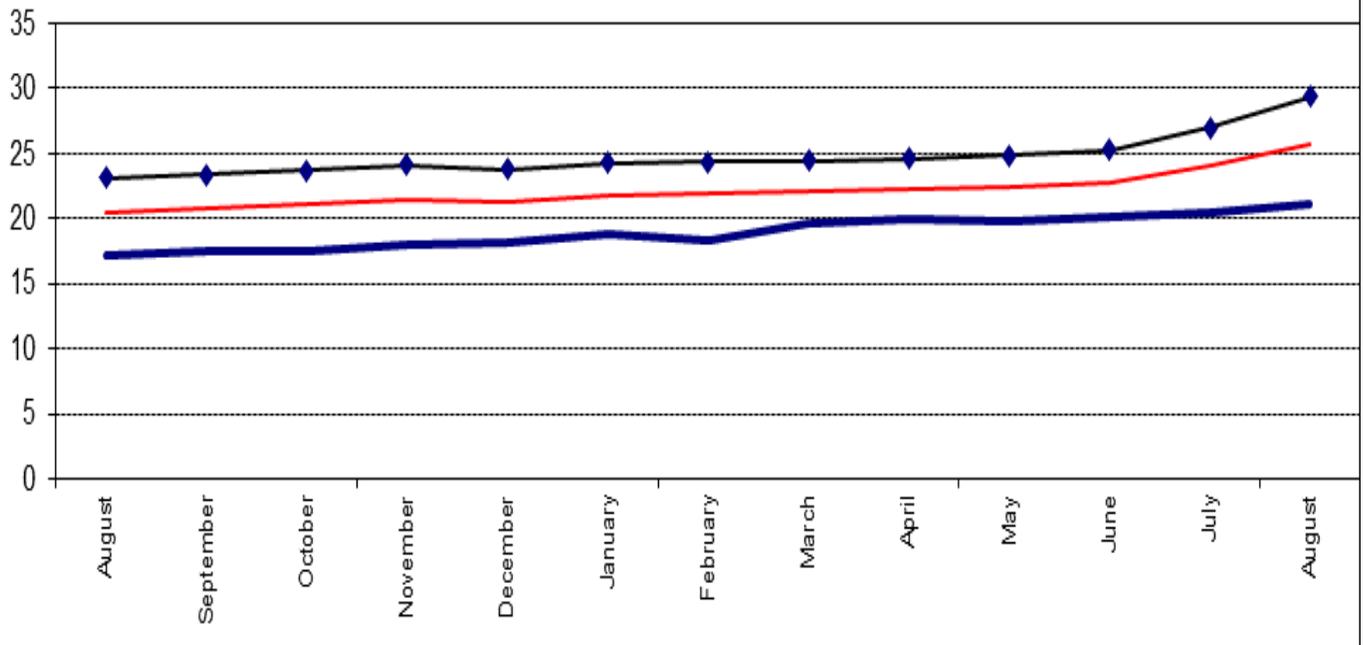
**3.08%**

MONTH-ON-MONTH

(FROM 2.74% IN JULY 2023)

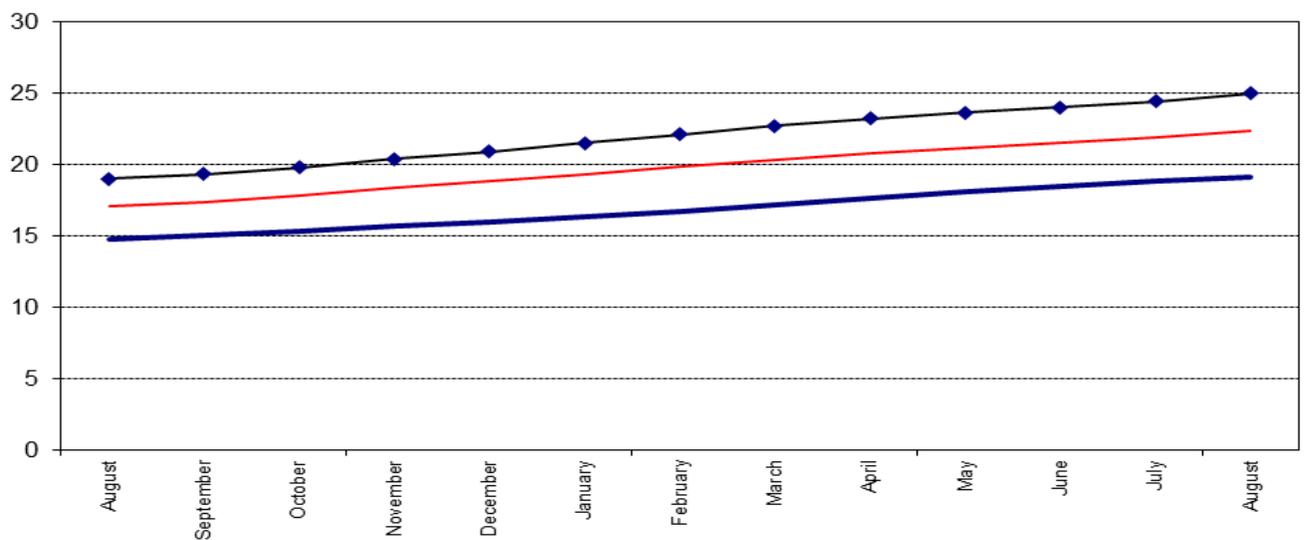
1. Inflation: Composite Year-on Change (%)

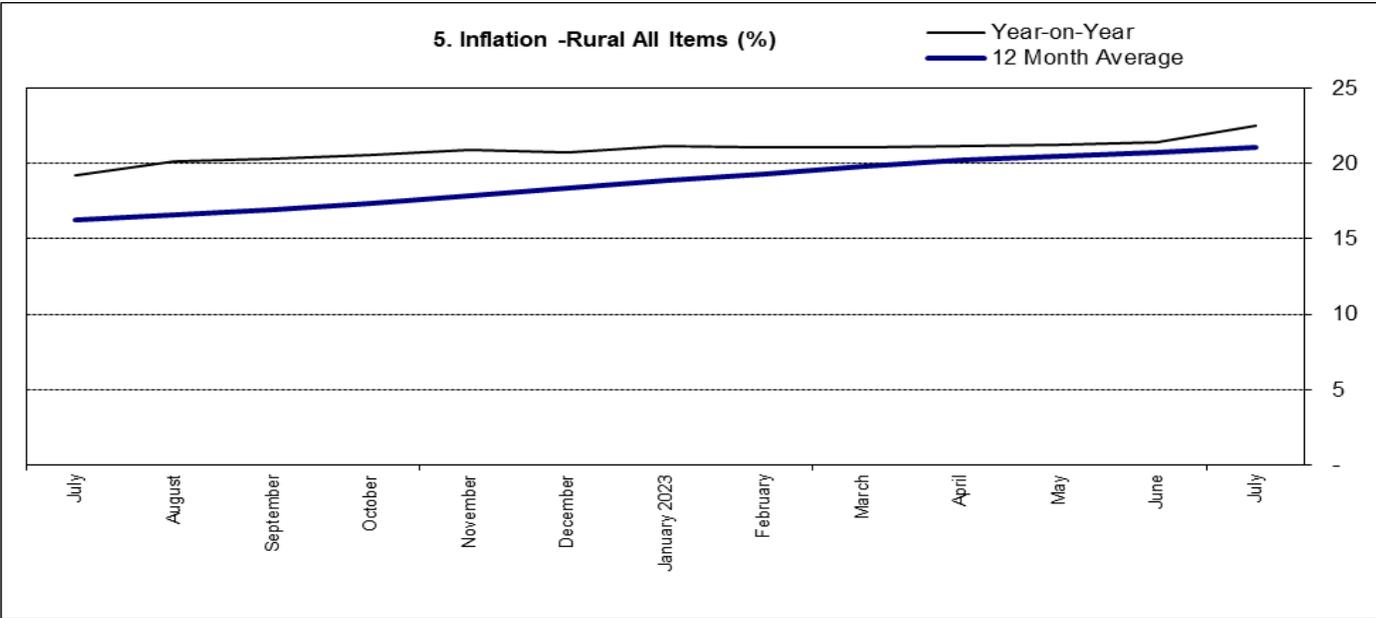
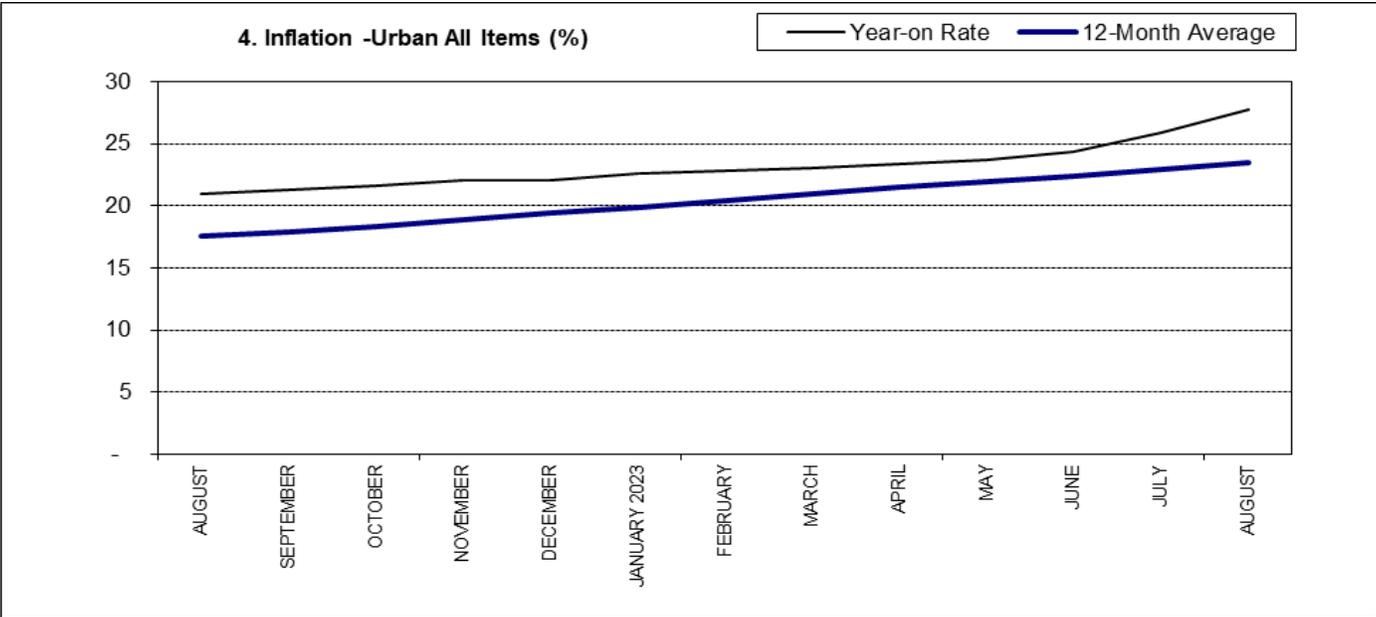
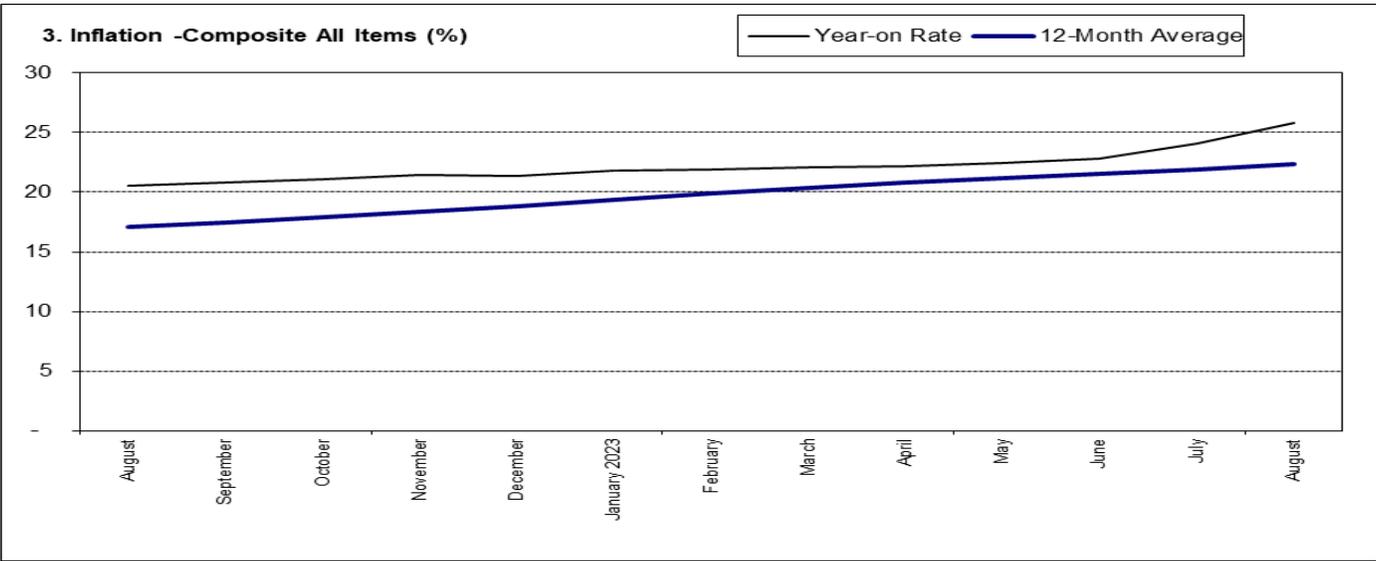
◆ Food — All Items less Farm Produce & Energy — All Items



2. Inflation: Composite 12-Month Average Change (%)

◆ Food — All Items less Farm Produce & Energy





## FOOD INFLATION

The Food inflation rate in August 2023 was 29.34% on a year-on-year basis, which was 6.22% points higher compared to the rate recorded in August 2022 (23.12%). The rise in Food inflation on a year-on-year basis was caused by increases in prices of Oil and fat, Bread and cereals, Fish, Fruit, Meat, Vegetables and Potatoes, Yam and other Tubers, Vegetable, Milk, Cheese and Eggs.

On a month-on-month basis, the Food inflation rate in August 2023 was 3.87%, this was 0.41% points higher compared to the rate recorded in July 2023 (3.45%). The rise in Food inflation on a month-on-month basis was caused by increases in prices of Bread and cereals, Potatoes, Yam and other tubers, Fish, Oil and Fat, Coffee, Tea, and Cocoa.

The average annual rate of Food inflation for the twelve months ending August 2023 over the previous twelve-month average was 25.01%, which was 5.99% points increase from the average annual rate of change recorded in August 2022 (19.02%).



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## FOOD SUB-INDEX IN AUGUST 2023 ROSE BY

**29.34%**

YEAR-ON-YEAR  
(FROM 23.12% IN AUGUST 2022)

**3.87%**

MONTH-ON-MONTH  
(FROM 3.45% IN JULY 2023)

## CORE SUB-INDEX IN JUNE 2023 ROSE BY

**21.15%**

YEAR-ON-YEAR  
(FROM 17.12% IN AUGUST 2022)

**2.18%**

MONTH-ON-MONTH  
(FROM 2.11% IN JULY 2023)

## ALL ITEMS LESS FARM PRODUCE AND ENERGY (CORE INFLATION)

*Before July, "all items less farm produces" is referred to as the Core inflation. This was because the prices of items that constitute energy were regulated by the government e.g., Petroleum Motor Spirit (PMS). Due to the deregulation of the sector and the removal of the fuel subsidy, all the items that constitute energy are now determined by market forces and hence their prices are termed volatiles. Therefore, Core inflation is referred to as all items index less farm produces and energy.*

The "All items less farm produces and energy" or Core inflation, which excludes the prices of volatile agricultural produces and energy stood at 21.15% in August 2023 on a year-on-year basis; up by 4.03% points when compared to the 17.12% recorded in August 2022. The highest increases were recorded in prices of Passenger Transport by Air, Passenger Transport by Road, Medical Services, Vehicle Spare parts, Maintenance, and repair of personal transport equipment etc. On a month-on-month basis, the Core Inflation rate was 2.18% in August 2023. It stood at 2.11% in July 2023, up by 0.07%. The average twelve-month annual inflation rate was 19.18% for the twelve months ending August 2023; this was 4.38% points higher than the 14.80% recorded in August 2022.

## STATE PROFILES

In analysing price movements under this section, it should be noted that CPI is weighted by consumption expenditure patterns which differ across States and locations. Accordingly, the weight assigned to a particular Food or Non-Food item may differ from State to State making interstate comparisons of consumption basket inadvisable and potentially misleading.

### **All Items Inflation**

In August 2023, all items inflation rate on a year-on-year basis was highest in Kogi (31.50%), Lagos (29.17%), and Rivers (29.06%), while Sokoto (20.91%), Borno (21.77%) and Nasarawa (22.25%) recorded the slowest rise in headline inflation on a year-on-year basis. On a month-on-month basis, however, August 2023 recorded the highest increases in Kwara (6.07%), Osun (4.36%), and Kogi (4.35%), while Sokoto (1.38%), Borno (1.73%) and Ogun (1.89%) recorded the slowest rise on month-on-month inflation.

### **Food Inflation**

In August 2023, Food inflation on a year-on-year basis was highest in Kogi (38.84%), Lagos (36.04%), and Kwara (35.33%), while Sokoto (20.09%), Nasarawa (24.35%) and Jigawa (24.53%) recorded the slowest rise in Food inflation on a year-on-year basis. On a month-on-month basis, however, August 2023 Food inflation was highest in Rivers (7.12%), Kwara (5.89%), and Kogi (5.80%), while Sokoto (0.50%), Abuja (1.30%) and Niger (1.40%) recorded the slowest rise in Food inflation on a month-on-month basis.

## ALL ITEMS INFLATION

### YEAR-ON-YEAR

#### HIGHEST RISE IN

|               |   |               |
|---------------|---|---------------|
| <b>KOGI</b>   | ▶ | <b>31.50%</b> |
| <b>LAGOS</b>  | ▶ | <b>29.17%</b> |
| <b>RIVERS</b> | ▶ | <b>29.06%</b> |

#### SLOWEST RISE IN

|                 |   |               |
|-----------------|---|---------------|
| <b>SOKOTO</b>   | ▶ | <b>20.91%</b> |
| <b>BORNO</b>    | ▶ | <b>21.77%</b> |
| <b>NASARAWA</b> | ▶ | <b>22.25%</b> |

### MONTH-ON-MONTH

#### HIGHEST RISE IN

|              |   |              |
|--------------|---|--------------|
| <b>KWARA</b> | ▶ | <b>6.07%</b> |
| <b>OSUN</b>  | ▶ | <b>4.36%</b> |
| <b>KOGI</b>  | ▶ | <b>4.35%</b> |

#### SLOWEST RISE IN

|               |   |              |
|---------------|---|--------------|
| <b>SOKOTO</b> | ▶ | <b>1.38%</b> |
| <b>BORNO</b>  | ▶ | <b>1.73%</b> |
| <b>OGUN</b>   | ▶ | <b>1.89%</b> |

## FOOD INFLATION

### YEAR-ON-YEAR

#### HIGHEST RISE IN

|              |   |               |
|--------------|---|---------------|
| <b>KOGI</b>  | ▶ | <b>38.84%</b> |
| <b>LAGOS</b> | ▶ | <b>36.04%</b> |
| <b>KWARA</b> | ▶ | <b>35.33%</b> |

#### SLOWEST RISE IN

|                 |   |               |
|-----------------|---|---------------|
| <b>SOKOTO</b>   | ▶ | <b>20.09%</b> |
| <b>NASARAWA</b> | ▶ | <b>24.35%</b> |
| <b>JIGAWA</b>   | ▶ | <b>24.53%</b> |

### MONTH-ON-MONTH

#### HIGHEST RISE IN

|               |   |              |
|---------------|---|--------------|
| <b>RIVERS</b> | ▶ | <b>7.12%</b> |
| <b>KWARA</b>  | ▶ | <b>5.89%</b> |
| <b>KOGI</b>   | ▶ | <b>5.80%</b> |

#### SLOWEST RISE IN

|               |   |              |
|---------------|---|--------------|
| <b>SOKOTO</b> | ▶ | <b>0.50%</b> |
| <b>FCT</b>    | ▶ | <b>1.30%</b> |
| <b>NIGER</b>  | ▶ | <b>1.40%</b> |

## APPENDIX

| Table 5 Combined Urban And Rural State Consumer Price Index (Base Period: November 2009 = 100) |        |           |        |           |        |           |      |           |       |           |
|--|--------|-----------|--------|-----------|--------|-----------|------|-----------|-------|-----------|
| State  | Aug-22 |           | Jul-23 |           | Aug-23 |           | MoM  |           | YoY   |           |
|  | Food   | All Items | Food   | All Items | Food   | All Items | Food | All Items | Food  | All Items |
| Abia   | 549.8  | 471.5     | 696.8  | 586.3     | 726.9  | 603.6     | 4.32 | 2.95      | 32.20 | 28.01     |
| Abuja  | 547.5  | 461.4     | 688.8  | 556.2     | 697.7  | 570.9     | 1.30 | 2.64      | 27.42 | 23.75     |
| Adamawa  | 536.3  | 454.3     | 659.8  | 554.2     | 678.6  | 566.2     | 2.84 | 2.16      | 26.52 | 24.61     |
| Akwa Ibom  | 563.1  | 471.4     | 718.7  | 586.3     | 739.1  | 600.8     | 2.84 | 2.48      | 31.26 | 27.45     |
| Anambra  | 549.0  | 487.0     | 673.8  | 593.3     | 698.7  | 614.5     | 3.69 | 3.58      | 27.27 | 26.19     |
| Bauchi   | 487.0  | 551.0     | 593.3  | 666.9     | 614.5  | 693.1     | 3.58 | 3.92      | 26.19 | 25.79     |
| Bayelsa  | 568.2  | 482.7     | 727.8  | 599.2     | 762.0  | 620.8     | 4.69 | 3.60      | 34.11 | 28.60     |
| Benue  | 563.6  | 470.8     | 693.3  | 564.4     | 725.9  | 585.4     | 4.71 | 3.72      | 28.80 | 24.35     |
| Borno  | 540.4  | 442.1     | 659.0  | 529.2     | 684.5  | 538.3     | 3.87 | 1.73      | 26.66 | 21.77     |
| Cross River  | 570.9  | 438.3     | 716.2  | 532.5     | 749.0  | 548.4     | 4.59 | 2.99      | 31.19 | 25.12     |
| Delta  | 564.0  | 444.5     | 720.4  | 546.7     | 749.5  | 562.6     | 4.04 | 2.91      | 32.89 | 26.57     |
| Ebonyi   | 586.8  | 491.7     | 730.7  | 598.4     | 763.5  | 623.4     | 4.48 | 4.18      | 30.11 | 26.79     |
| Edo  | 566.4  | 486.5     | 720.3  | 596.3     | 744.2  | 610.7     | 3.31 | 2.40      | 31.39 | 25.51     |
| Ekiti  | 567.3  | 438.9     | 723.3  | 530.1     | 762.7  | 548.5     | 5.44 | 3.47      | 34.45 | 24.97     |
| Enugu  | 567.6  | 445.5     | 712.0  | 541.2     | 742.0  | 556.3     | 4.21 | 2.78      | 30.73 | 24.85     |
| Gombe  | 550.5  | 476.9     | 671.3  | 578.9     | 698.0  | 598.1     | 3.97 | 3.31      | 26.79 | 25.43     |
| Imo  | 565.9  | 428.2     | 719.7  | 522.0     | 752.9  | 541.7     | 4.61 | 3.76      | 33.04 | 26.51     |
| Jigawa   | 531.4  | 471.4     | 632.6  | 560.8     | 661.7  | 584.4     | 4.61 | 4.21      | 24.53 | 23.97     |
| Kaduna   | 551.1  | 487.0     | 687.5  | 596.7     | 712.9  | 616.0     | 3.70 | 3.24      | 29.36 | 26.48     |
| Kano   | 558.0  | 486.8     | 680.5  | 589.4     | 702.0  | 607.3     | 3.16 | 3.03      | 25.81 | 24.74     |
| Katsina  | 528.1  | 427.2     | 649.6  | 517.5     | 671.5  | 530.9     | 3.37 | 2.58      | 27.15 | 24.28     |
| Kebbi  | 560.1  | 506.1     | 677.3  | 611.7     | 704.3  | 634.1     | 4.00 | 3.65      | 25.76 | 25.29     |
| Kogi   | 635.8  | 539.4     | 834.4  | 679.8     | 882.7  | 709.4     | 5.80 | 4.35      | 38.84 | 31.50     |
| Kwara  | 614.5  | 551.8     | 785.4  | 660.5     | 831.7  | 700.5     | 5.89 | 6.07      | 35.33 | 26.94     |
| Lagos  | 584.3  | 496.0     | 756.7  | 617.8     | 795.0  | 640.6     | 5.06 | 3.70      | 36.04 | 29.17     |
| Nassarawa  | 554.5  | 483.0     | 668.6  | 575.3     | 689.5  | 590.5     | 3.12 | 2.64      | 24.35 | 22.25     |
| Niger  | 551.8  | 483.2     | 679.2  | 589.8     | 688.7  | 601.0     | 1.40 | 1.90      | 24.81 | 24.37     |
| Ogun   | 570.2  | 501.6     | 728.6  | 624.5     | 747.3  | 636.3     | 2.57 | 1.89      | 31.07 | 26.85     |
| Ondo   | 575.8  | 493.7     | 728.1  | 610.7     | 764.6  | 633.1     | 5.01 | 3.66      | 32.79 | 28.23     |
| Osun   | 556.7  | 468.0     | 696.9  | 567.3     | 731.2  | 592.1     | 4.92 | 4.36      | 31.35 | 26.52     |
| Oyo  | 562.5  | 500.8     | 712.7  | 622.6     | 738.3  | 643.1     | 3.59 | 3.29      | 31.26 | 28.42     |
| Plateau  | 549.1  | 485.2     | 674.9  | 586.2     | 695.8  | 603.1     | 3.10 | 2.89      | 26.70 | 24.29     |
| Rivers   | 570.3  | 477.1     | 713.6  | 590.3     | 764.4  | 615.7     | 7.12 | 4.31      | 34.05 | 29.06     |
| Sokoto   | 554.4  | 477.5     | 662.5  | 569.5     | 665.8  | 577.3     | 0.50 | 1.38      | 20.09 | 20.91     |
| Taraba   | 542.9  | 459.0     | 654.2  | 548.7     | 683.8  | 563.5     | 4.51 | 2.69      | 25.95 | 22.77     |
| Yobe   | 545.3  | 480.7     | 669.3  | 584.6     | 688.3  | 601.2     | 2.84 | 2.84      | 26.23 | 25.07     |
| Zamfara  | 547.7  | 483.5     | 668.3  | 586.2     | 695.8  | 607.7     | 4.11 | 3.68      | 27.03 | 25.70     |

*Note: Indices may not be used for inter-state price comparison because market baskets differ from state to state*

# CONTACT



## National Bureau of Statistics

Head Office

No 1, Wole Olanipekun Street,  
Formerly, Plot 762 Independence  
Avenue  
Off Constitution Avenue,  
CBD, Abuja, F. C. T.

## Mr. Ichedi S.J

Information Desk

Head, Communication & Public  
Relations Department (C&PRD)  
Phone: +2348037051701  
sjchedi@nigerianstat.gov.ng

## Moses Mathew

Statistical Information Officer

Phone: +2347069071157  
matmoses@nigerianstat.gov.ng

## Dr A.A. Ayo

Head Prices Division

Phone: +2348036082904  
anthonyayo@nigerianstat.gov.ng



@nbsnigeria



NBSNigeria



Nbs\_nigeria

