

THE SBM JOLLOF INDEX



REMAINING WITHIN A
VICIOUS CYCLE




DISCLAIMER

The data in this report is only up-to-date as of Monday, 17 April 2023. Some of it is subject to change during the natural course of events. SB Morgen cannot accept liability for any errors or omissions that may follow such events that may invalidate data contained herein.

Our researchers employed one-on-one interviews and desk research to collate the available data. Our editors sifted through the data and prepared the report, using various proprietary tools to fact-check and copy-edit the information gathered.

Our publicly released reports are formatted for easy and quick reading and may not necessarily contain all the data that SB Morgen gathered during a given survey. Complete datasets can be made available on request.

All forecasts were built using data from a variety of sources. A baseline of accurate and comprehensive historical data is collected from respondents and publicly-available information, including regulators, trade associations, research partners, newspapers and government agencies.

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INTRODUCTION ◀◀◀

According to the International Rescue Committee, more than 34 million people could face hunger in West Africa by the middle of this year.¹ Many factors make food insecurity worse, including conflict, climate change, and government policy.

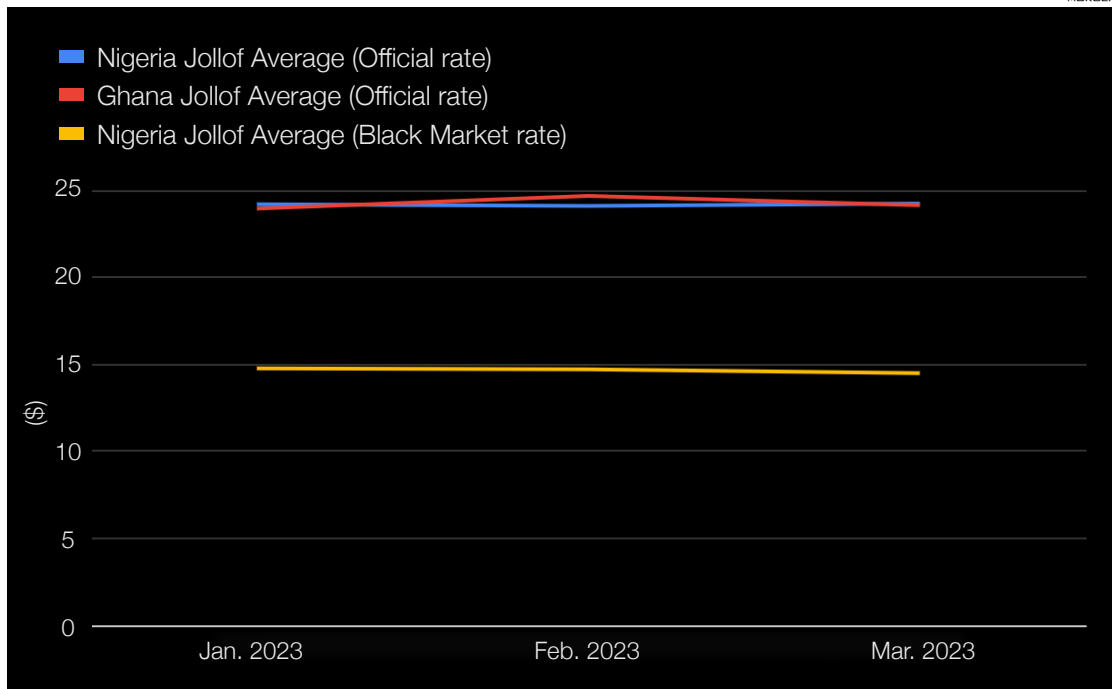
To better illustrate the impact of these factors on Nigerians, SBM Intel developed the Jollof Index, a tool that tracks the cost of preparing a pot of jollof rice for an average family of five. The index monitors the prices of essential ingredients like rice, curry, thyme, seasoning, groundnut oil, poultry, beef, pepper, tomatoes, salt, and onions, providing valuable insight into Nigeria's food inflation trends. Data for the index are collected monthly from 13 markets across Nigeria's six geopolitical zones, apart from December, when prices are high because of seasonal variations.

This year, the index has expanded to include two cities in West Africa's second-largest economy, Ghana—Accra and Kumasi—as part of a broader regional edition. The Jollof Index now aims to provide a clearer understanding of food inflation across West Africa and provide a basis of comparison that ordinary people and sophisticated observers alike can quickly intuitively use across multiple countries.

¹[More Than 34 Million Could Face Hunger by June in West Africa, IRC Says | Bloomberg](#)



West African Jollof Index



To make the comparison clearer, while we will analyse the data we have gathered in Naira and Cedis when comparing both countries, we will convert to US dollars at three rates: Ghana's exchange rate and the two rates in Nigeria—official and parallel. We also maintain the Nigerian National Bureau of Statistics standard family of five for both countries. The actual effects on individuals in each country are subject to fluctuations in the prices of their local currencies, highlighted in the report.

The report presents a price comparison of Nigerian and Ghanaian Jollof for three consecutive months in 2023, highlighting the

changes in prices and the percentage changes month-over-month for each country. The data analysis reveals that the price difference between the two dishes fluctuated during that period, with Nigerian Jollof being more expensive in January and March while Ghanaian Jollof was more expensive in February. Additionally, Ghanaian Jollof experienced more significant fluctuations in price than Nigerian Jollof. The report shows that the high prices and these price fluctuations could challenge food affordability in the region.



NIGERIAN JOLLOF INDEX ◀◀◀

Nigeria is facing a persistent food insecurity crisis that is continually aggravated by insecurity, poor policies, adverse weather conditions, and international events such as the recent Russia-Ukraine war. This alarming situation stems from various factors, including unstable food-producing regions, inadequate storage infrastructure, and a lack of agricultural commercialisation. In our Jollof Index September 2022 report, we tied the 23.34% food inflation rate to the effects of the Ukraine-Russia war, hangovers from the coronavirus pandemic, insecurity, poor macroeconomic policies and floods. Last year, the chairman of the maize farmers association in Katsina State, Nigeria, reported losing more than 1454² of its over 25,000 members in three years. More recently, about 74³ people were killed in rural Benue—a food-producing state. Three farmers were killed⁴ in Edo State, among others. Flooding damaged 676,000⁵ hectares of farmland, diminishing harvests and increasing the risk of hunger.

Policies ostensibly aimed at reducing food imports over the past years still have a lingering effect, and increased energy tariffs have

¹Terrorists killed 1,454 farmers, forced many out of farms in Katsina | Tribune Nigeria

²Armed gangs kill 74 in Nigeria's Benue state | Reuters

³Three corpses found on Edo farm, police arrest kidnapper | Punch

⁴25 million Nigerians at high risk of food insecurity in 2023 | UNICEF



further exacerbated the problem. An ill-fated currency exchange attempt worsened what was already a bad situation. Despite urgent appeals from researchers and development agencies, with 25 million Nigerians estimated to face hunger between June and August 2023⁶, no comprehensive strategy has been proposed to address this escalating crisis. Instead, matters have deteriorated, with the recent cash exchange policy causing naira scarcity and decaying the situation⁷.

Since the last quarter of 2022, several states in the North Central and Middle Belt have seen increased attacks by militant herders. The states worst hit are Benue and Kaduna. The region is Nigeria's food-producing region. In Niger—Nigeria's largest state by area and with a very important food production capacity, at least three local government areas—Shiroro, Rafi and Munya—have been occupied by armed groups⁸ with a focus on mining activities, as a result, displacing thousands of farmers who have had to relocate because of the violence.

The SBM Jollof Index National Average for Nigeria shows the average cost of making a pot of Jollof rice across the 13 markets in the six geopolitical zones of Nigeria. Over seven months, from September 2022 to March 2023, the cost of preparing a pot of Jollof rice has risen from ₦9,917 to ₦10,882, marking an increase of 9.73%.

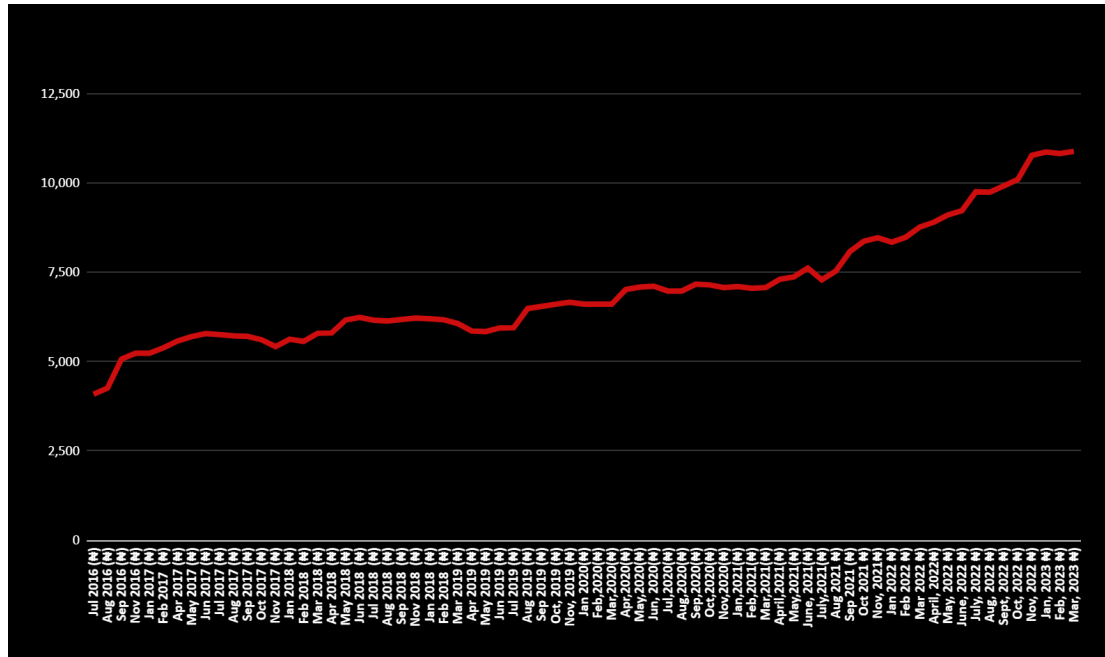
⁶Ibid.

⁷Ahead of Nigeria's Election, a Cash Shortage Causes Chaos and Suffering - The New York Times.

⁸What is happening in Niger State? | SBM Intelligence



Nigeria Jollof Index Average



When examining the month-to-month fluctuations, it is evident that the costs generally increased from September to January. The most substantial spike occurred in November, with a 6.6% increase. Between September and October, the index saw a more modest growth of 1.81%, while January experienced a 0.88% increase. This upward trend shows that the prices of essential ingredients for Jollof rice have increased. The period between September and November saw long petrol queues⁹ across the country, which led to supply chain disruptions and inadequate supplies of food ingredients. As the fuel scarcity failed to ease, the prices of items like rice and chicken increased in November as preparations for the end-of-year festivities began, which are often

⁹Petrol Scarcity Hits Lagos, Enters Fourth Week in Abuja – THISDAYLIVE

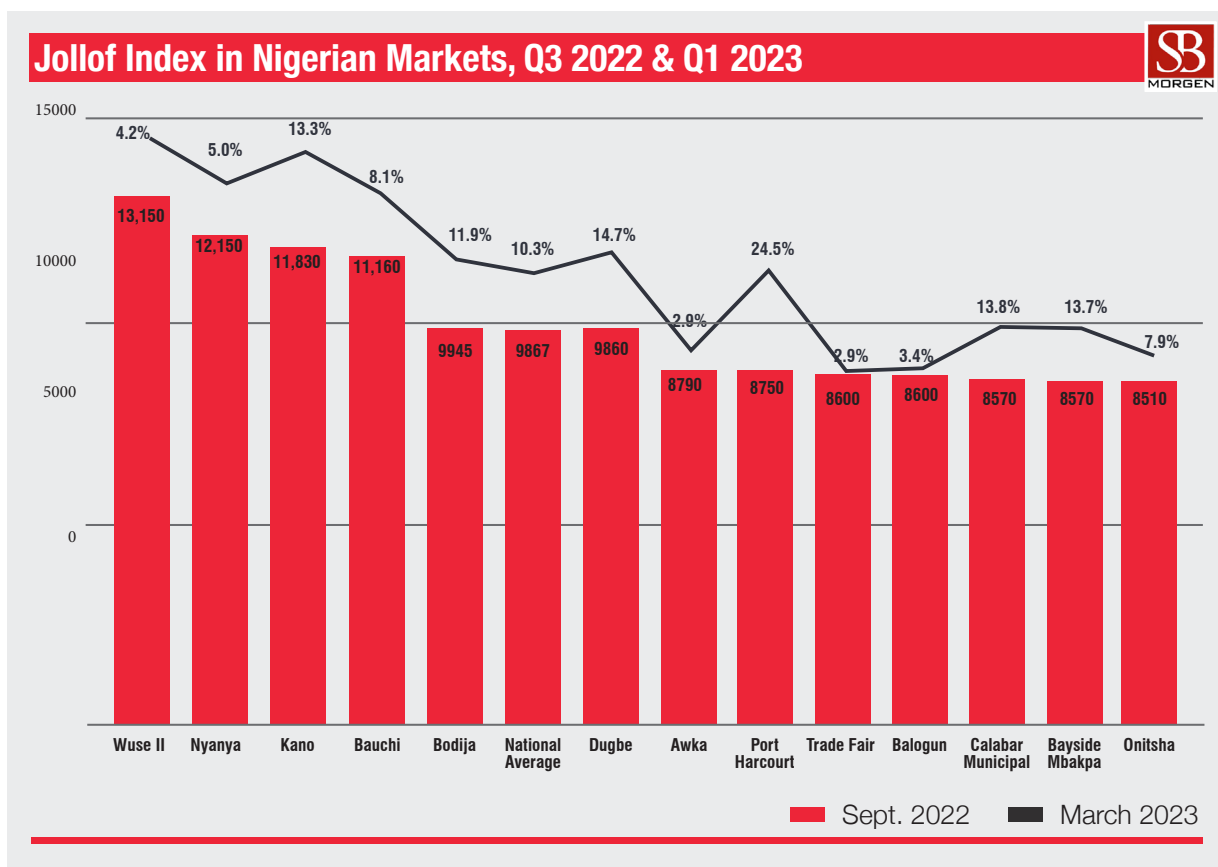
accompanied by increased purchases of food items by corporations and households.

February saw a slight decline of 0.41% in the cost of making a pot of Jollof rice, which potentially indicated a temporary stabilisation or a short-term improvement in market conditions. However, our interviews with traders and buyers show that there was latent demand following the cash shortage created by the short exchange window given by the government to swap old notes. This created a new form of arbitrage where Nigerians bought physical cash for a fee, as most essential transactions are cash-based. The cost of buying the Naira went as high as ₦1500 for ₦5,000 in some locations around the country. Buyers explained that they did not have enough cash to buy even the most basic needs, creating that pent-up demand. This also had an effect on businesses, especially those whose value chain extends to the informal sector. In a survey conducted by SBM Intelligence on the Impact of the cash shortage on households and businesses, 82% of households said they were affected by the cash shortage. For businesses, 76% said they were significantly affected, and 17% said they were somewhat affected, which makes an overwhelming 93% of businesses affected by the cash shortage.

This August reprieve in February was short-lived, as prices picked up again in March with an increase of 0.58%. The fluctuations in the cost



of making a pot of Jollof rice hold significant implications for Nigerian households. A rise in food prices leads to increased financial pressure on families and may result in a reduced quality of life. While currency becomes increasingly available as the Central bank has been ordered to recirculate the old notes, we do not think this will ease off the cost of food as the impact of policies takes a long time to be corrected, and there had been projections of increased hunger between June and August, particularly in the North East and North West.





To address these price fluctuations and ensure food security for Nigerian citizens, the government and relevant stakeholders need to focus on improving agricultural productivity, addressing supply chain inefficiencies, and implementing measures to curb inflation.

Throughout the 13 markets surveyed in Nigeria, Wuse II consistently ranked as the most expensive market for making a pot of Jollof rice, with a cost of ₦13,700. On the other hand, Trade Fair in Lagos offered the lowest cost for preparing the dish at ₦8,850. This illustrates the varying costs of ingredients and living expenses across different regions in the country.

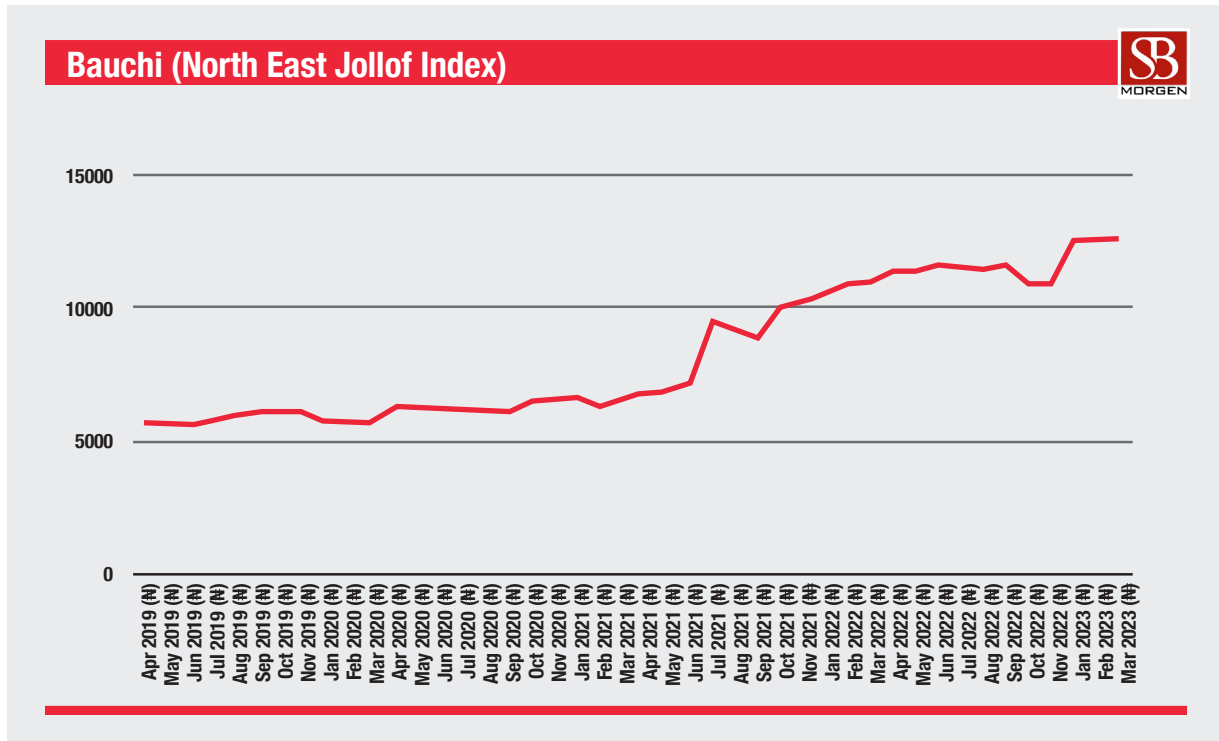
From September 2022 to March 2023, the cost of making a pot of Jollof rice increased in every market. Port Harcourt experienced the highest percentage increase at 22.7%, followed by Calabar Municipal at 14.7%, Bayside Mbakpa at 13.7%, and Kano at 13.3%. These substantial increases indicate the impact of inflation and other economic factors on the cost of food items in these regions. It is also important to note that all the states with the highest percentage increase are in the South-South region of the country. While we provide detailed information on the causes of these issues with case studies from our interviewees under the South-South Jollof Index, it is good to mention that the prices of most of the food items in Port Harcourt increased following fuel subsidies. A certain trader's narration, which we quote in the later part, shows that transportation costs doubled from November on, forcing



businesses to transfer the cost to their customers.

On the other hand, the states with the lowest percentage increase during this period were Awka and the Trade Fair Market, with a 2.9% rise. While these increases are still noteworthy, they are comparatively smaller than those seen in other Markets.

These differences in the cost of making a pot of Jollof rice show the diversity of challenges faced by different communities and the importance of monitoring food prices across various regions to ensure that everyone has access to affordable and nutritious meals.





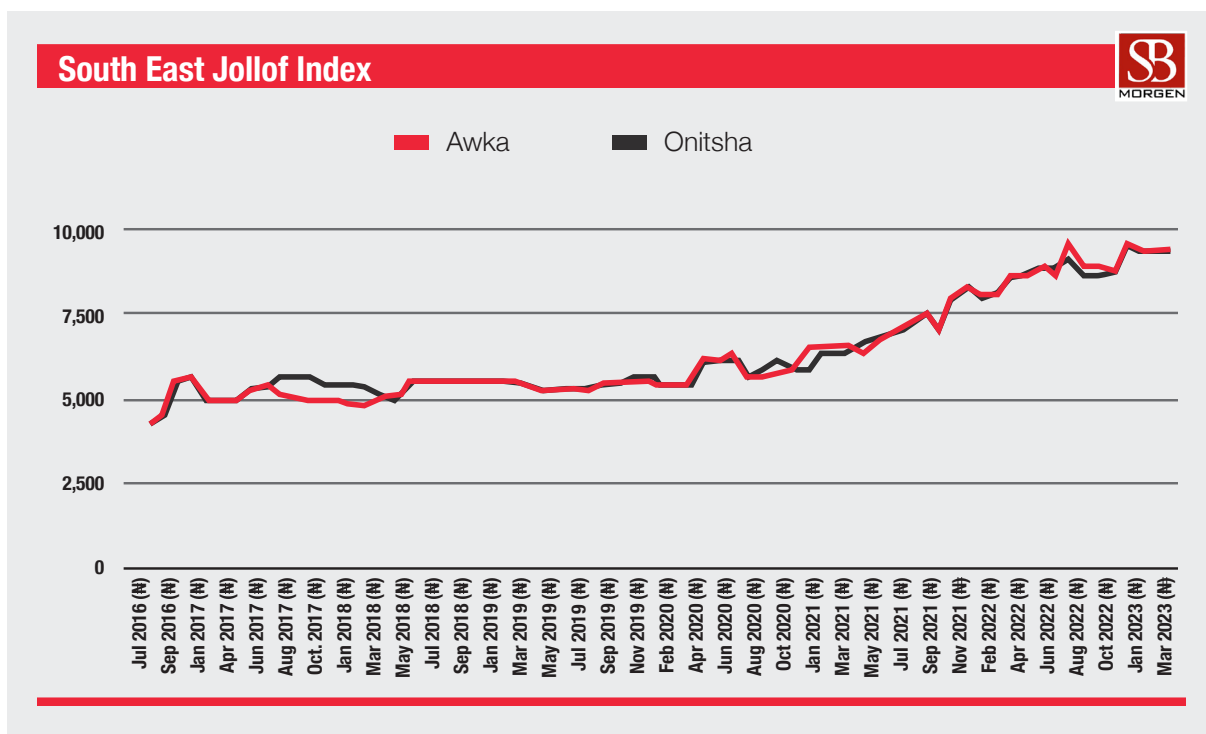
Between November and March, Bauchi State experienced a sharp spike in the cost of making a pot of Jollof rice. The area had been severely impacted by the 2022 flooding, which led to the loss of lives, the displacement of people, and significant damage to property, including the destruction of 8,457 houses and the submersion of 4,500 farmlands. The flooding also had a direct impact on food security in the region.

In response to this disaster, several government agencies, including the Bauchi State Emergency Management Agency (BASEMA), the North East Development Commission (NEDC), and the National Emergency Management Agency (NEMA), provided relief materials to the affected residents. These materials included food supplies, which helped to reduce food costs in the area temporarily.

However, the relief provided by these agencies was short-lived. The combined impact of the flooding, cash shortages, and ongoing conflict in the region led to a significant spike in food prices between November and January. This situation is further exacerbated by the fact that Bauchi was identified as one of the regions with the highest levels of food insecurity in the October 2022 Cadre Harmonise analysis. The region was home to 3 million out of the 17 million people at risk of food insecurity, a figure projected to increase to 4.4 million if immediate actions were not taken.



Given the ongoing challenges in Bauchi, including the humanitarian crisis and the lingering effects of the flooding and conflict, it is expected that the region will continue to struggle with food insecurity and high food costs. This highlights the urgent need for comprehensive interventions and support to address the complex and interrelated issues faced by the residents of Bauchi and the North East.



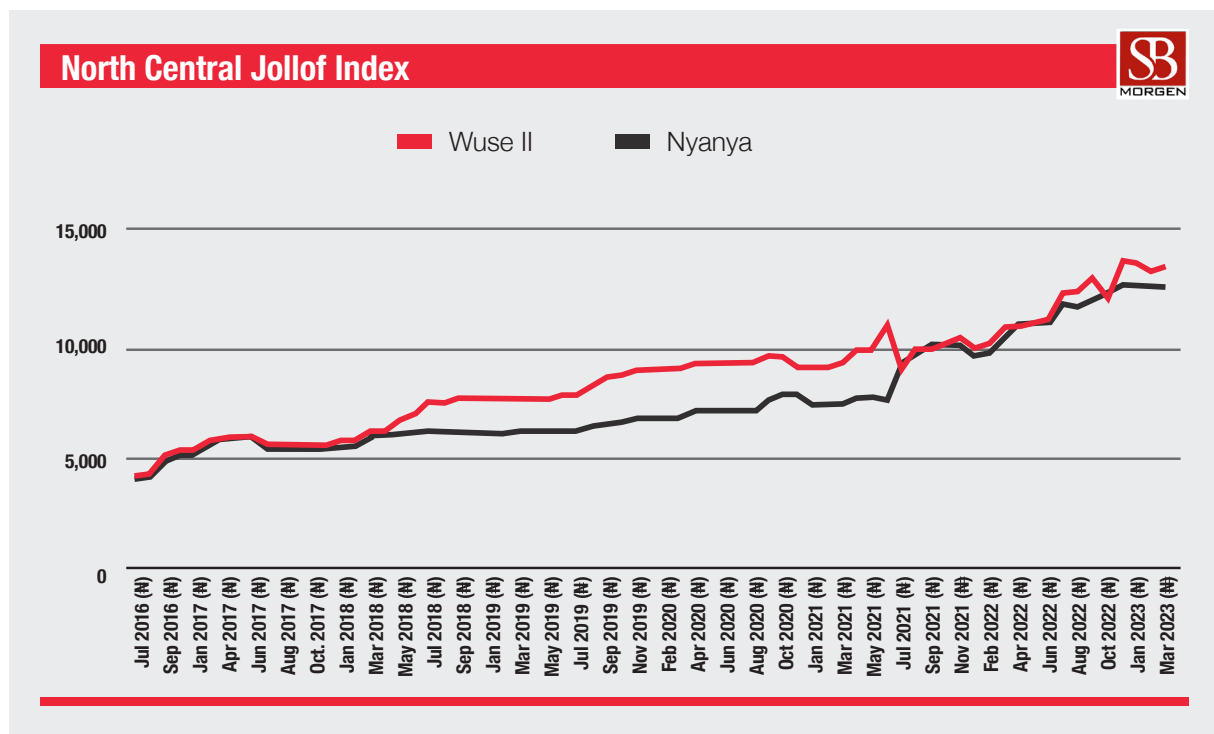
The South-East Jollof Index, which monitors the cost of making a pot of Jollof rice in the region, indicates that there were fluctuations in prices from September 2022 to March 2023. The data reveals a decline



in prices between September and October, followed by a significant increase in November. This upward trend persisted through March. Comparing the data from September 2022 to March 2023, the cost of making a pot of Jollof rice in Onitsha increased by 7.9%, while in Awka, it increased by 2.9%. Although these increases are not as pronounced as in other regions, they demonstrate that price stability remains elusive in the South East.

Several factors contributed to the price fluctuations in the region, including cash scarcity, intermittent insecurity issues, and the increase in prices commonly associated with festive periods. These factors combined to cause the spike in November and maintain elevated prices through March.

The South-East Jollof Index highlights the ongoing challenges faced by residents of the region due to price instability. Efforts to address the underlying issues of cash scarcity, insecurity, and other factors influencing food prices are necessary to help stabilise the cost of making a pot of Jollof rice and support local communities in coping with these economic challenges.



The North-Central Jollof Index, which tracks the cost of making a pot of Jollof rice in the region, revealed varying price trends between different markets. Wuse II, a metropolitan area, typically had higher prices than Nyanya, an outskirt market. However, as price increases affected the entire country, some people living in metropolitan areas began visiting outskirt markets to save money. This change in buying patterns also led to an increase in prices in the outskirt markets.

When comparing the price changes from September 2022 to March 2023, Wuse II experienced a 4.2% increase, while Nyanya saw a slightly higher increase of 5%. The higher increase in Nyanya can be

attributed to the influx of metropolitan consumers seeking lower prices, ultimately driving up the cost of food in these markets.

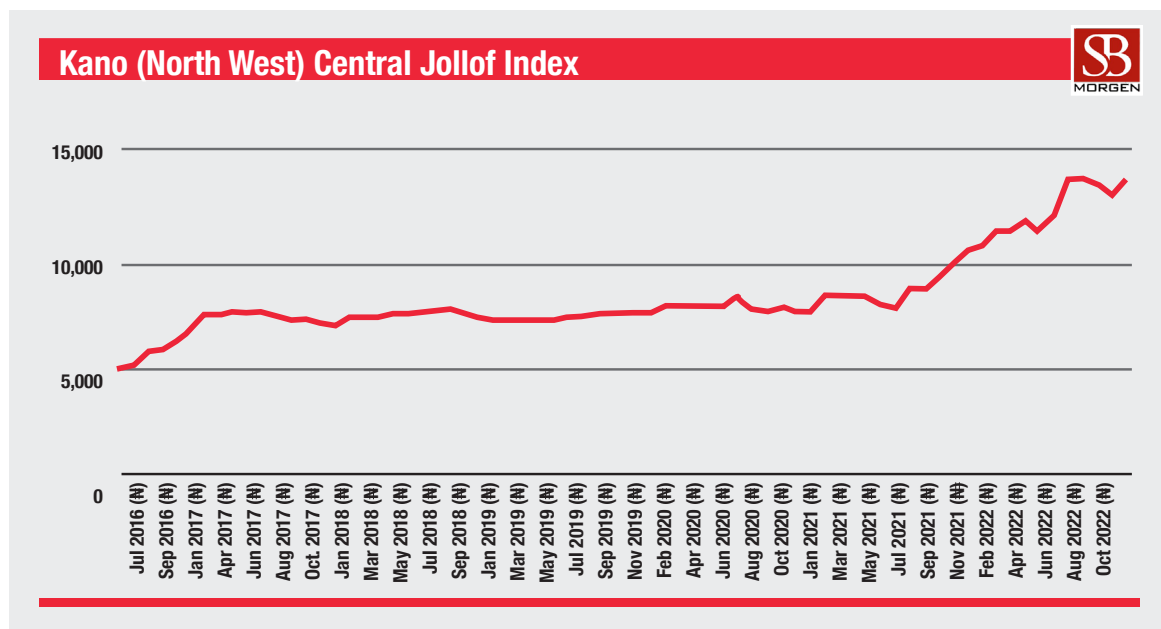
Fuel scarcity has been a significant factor contributing to food security issues in the North Central region. In Abuja, fuel scarcity began early in 2022 and persisted throughout the year, further exacerbated by cash shortages. Abuja relies on food supplies from neighbouring North Central, North West, and North Eastern states, but insecurity in these areas has reduced farming activities due to farmer killings and the ongoing farmer-herder crisis. This situation has led to the abandonment of many arable farms in Benue.

Additionally, flooding in 2022 displaced over 3,000 people in Benue State and destroyed over 100,000 hectares of farmland. This loss of agricultural land further contributed to the increase in food prices in the region.

In summary, while the North-Central Jollof markets enjoy an influx of supply from surrounding regions (that is, they are diversified), they are not insulated from price fluctuations and increases. However, this diversification reduces the impact felt by others around the sample markets. The Index highlights the challenges faced by the region due to fuel scarcity, insecurity, and natural disasters, which have led to increased food prices, impacting both metropolitan and outskirt markets. Addressing these issues is crucial for stabilising food prices and improving food security in the region.



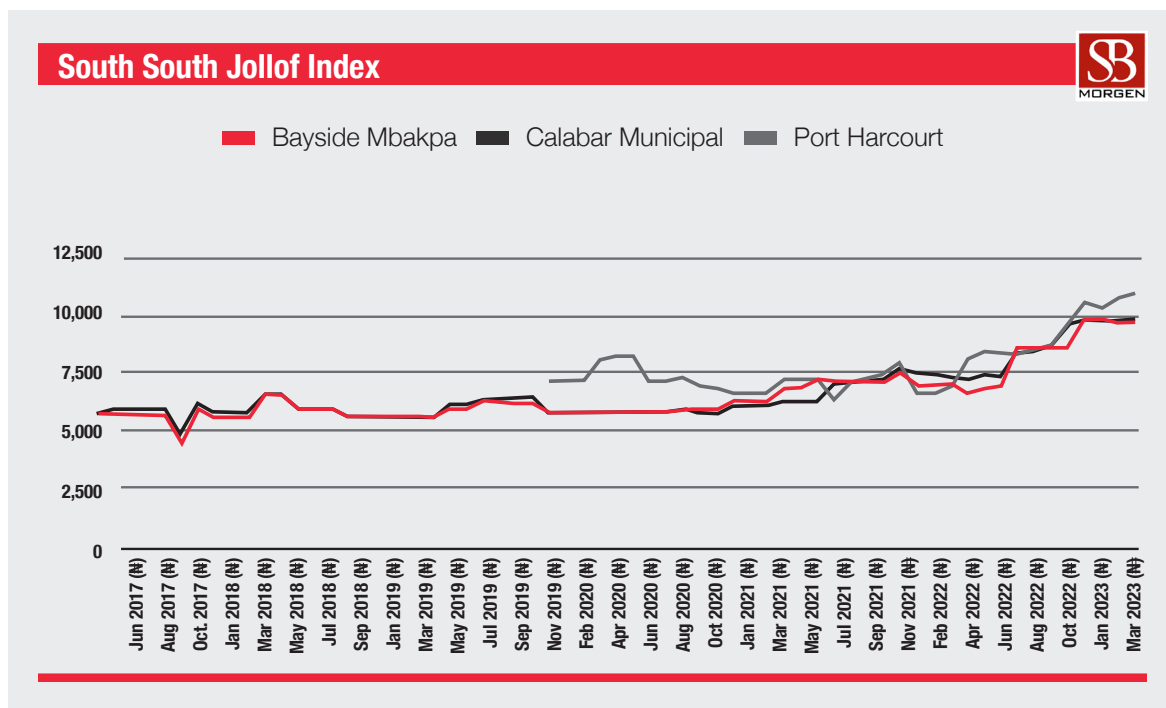
The North-West Jollof Index, which tracks the cost of making a pot of Jollof rice in the region, reveals that prices remained high from September through January, with a slight decline in February before rising again in March. Comparing the cost of making a pot of Jollof rice in September 2022 to March 2023, there was a significant increase of 13.3% in the region.



Several factors contributed to these high prices in the North West. The region was affected by flooding, which resulted in the deaths of 23 people and the destruction of approximately 14,496 farms. Fuel scarcity and naira shortages further worsened the situation, increasing food prices.



More concerning is the fact that the North-West region has already been identified as a hunger hotspot by UNICEF. An estimated 2.9 million people in the region were critically food insecure as of October 2022, and that number is projected to increase to 4.3 million during the lean season if urgent action is not taken. Sadly, nothing has been done about it, and other factors have increased the problems in the region.



The South-South Jollof Index highlights significant increases in the cost of making a pot of Jollof Rice in the region. Port Harcourt experienced the highest percentage increase at 22.7%, followed by Calabar Municipal at 14.7% and Bayside Mbakpa at 13.7%. It's worth noting that the states with the highest percentage increases are all located in the South-South region of Nigeria.

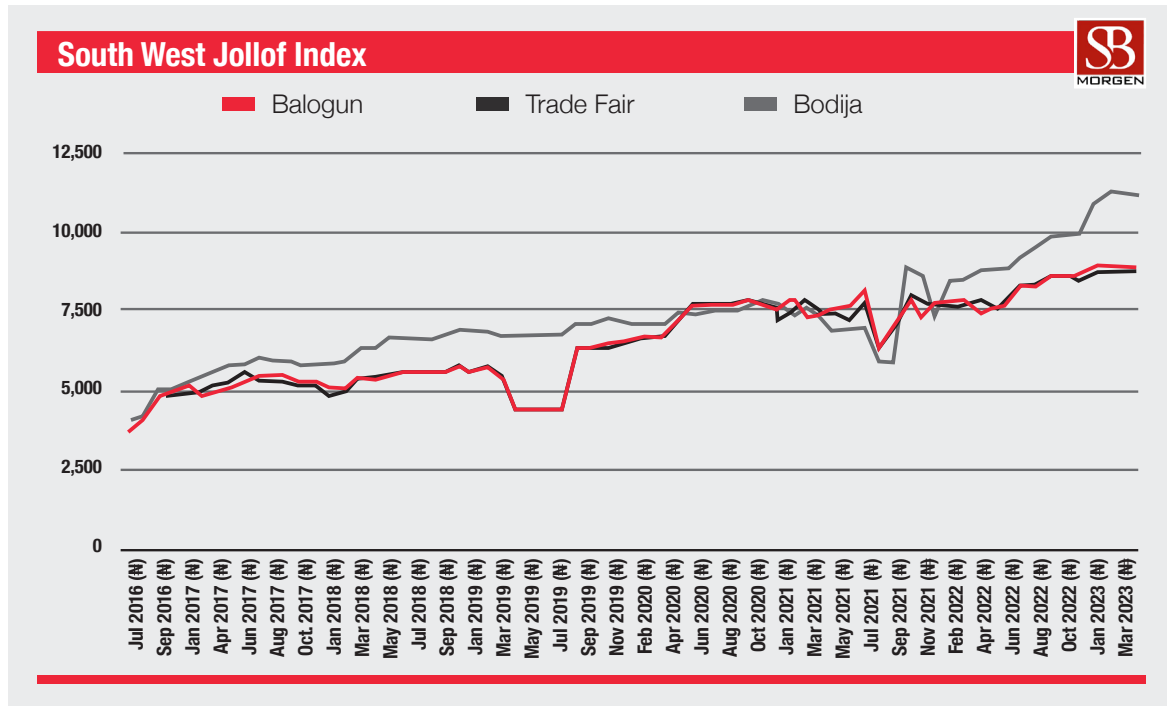


The rise in food prices in the region can be attributed to the increase in transportation costs following fuel subsidy removal and fuel scarcity. This situation has significantly impacted local traders, who are forced to pass on the increased costs to their customers.

A 53-year-old trader in Port Harcourt, who sells rice, fufu, garri, and dry fish, shared her experience with the area's rising food prices and transportation costs. She explained that the increase in fuel prices due to fuel scarcity has led to higher costs for transporting goods to her shop from village markets. For instance, the cost of transporting goods from the IBA market in Port Harcourt to Choba within the same city has increased from ₦1,500 to ₦3,500. This additional cost is transferred to the food items she sells, resulting in higher consumer prices.

In her own words, “The increase in price of fuel due to fuel scarcity has caused an increase in the prices of goods, and not only that, the cost of transporting the goods to my shop from the village market is even worse. From IBA market in Port Harcourt to Choba in the same Port Harcourt, it is now ₦3,500 because of the small goods I carried. Meanwhile, I would have paid nothing more than ₦1,500 before now. This whole cost will be placed on the foodstuffs that I sell, so it is not my fault that foodstuffs are expensive.”

The South-South Jollof Index underscores the challenges local communities face in the region due to rising food prices. Addressing the issues of fuel scarcity and transportation costs is essential for stabilising food prices and ensuring the affordability of staple food items, such as Jollof rice, for residents in the South-South region of Nigeria.



Trade Fair and Balogun markets in Lagos experienced a relatively modest price increase for making a pot of Jollof Rice from September to March, with Trade Fair registering a 2.9% increase and Balogun showing a 3.4% increase. Two main factors contributed to the slower price increase in Lagos despite the impact of cash shortages and long fuel queues. Firstly, Lagos receives its food supply from numerous states within Nigeria and neighbouring African countries, ensuring a consistent supply. Secondly, Lagos does not experience the same spike in demand during end-of-year festivities as other states, as there is often migration from Lagos to other states for celebrations.

The South-West Jollof Index revealed contrasting price trends for markets in Ibadan compared to those in Lagos. In Bodija, a wholesale market in Ibadan, prices climbed steadily between September and November, spiked from November through January, maintained high levels in February, and slightly decreased in March. Comparing the cost of making a pot of Jollof Rice in September 2022 to March 2023, there was an 11.9% increase. The price rise was initially due to preparation for festivities, but fuel scarcity and cash shortages further aggravated the situation, keeping prices high in the region.

The South-West Jollof Index shows varying price trends for making a pot of Jollof Rice in different regional markets. While Lagos experienced slower price increases due to diverse food supply sources and reduced festive demand, Ibadan saw a more significant increase in prices, influenced by fuel scarcity, cash shortages, and festive demand.

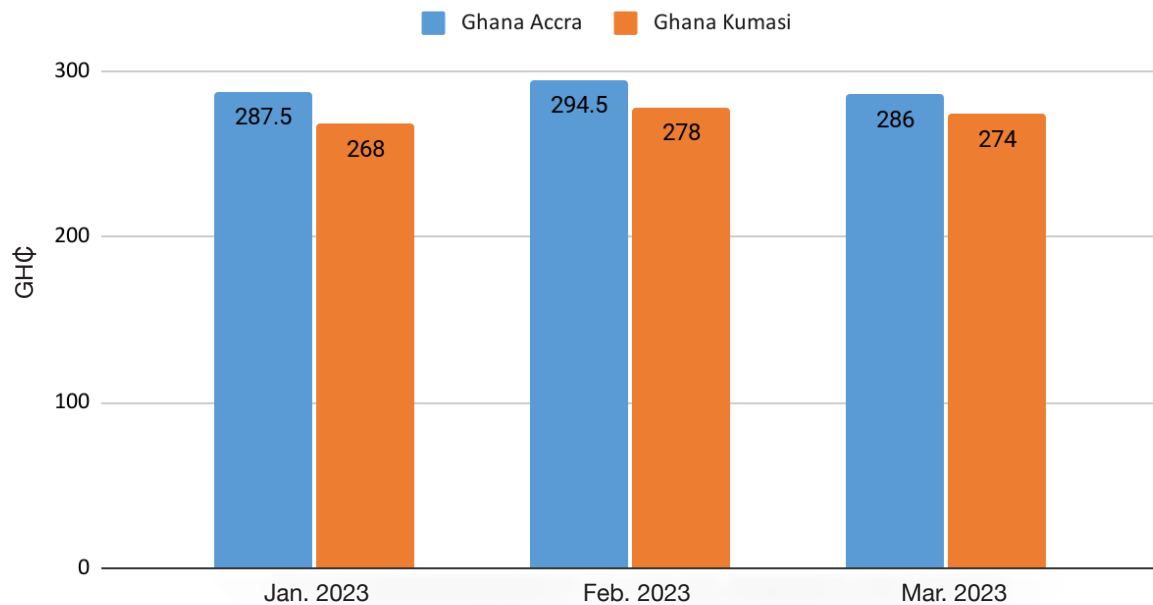
Our field researchers in Oyo State gathered that the emergence of cash scarcity since February 2023 had wrecked most sectors, namely agriculture, health care, human resources, broadcasting, education, transportation, production, fashion, banking, sales, entertainment, stock market, amongst others. As a result of the inadequate supply of agricultural products, people have lost their lives. Cash scarcity has disrupted the mode of small businesses and the practice of rural business operators, who depend mostly on cash for their daily transactions. The current financial drought has decreased their income rate, making it exceptionally difficult to meet their daily needs and care for their families.



GHANA

JOLLOF INDEX ◀◀◀

Cost of making a pot of jollof rice in two cities in Ghana



This chart compares the cost of making a pot of jollof rice in two cities in Ghana, Accra and Kumasi, over three months from January 2023 to March 2023. These costs are denominated in Ghanaian Cedi (GH¢). From the data, we can observe that the cost of making a pot of jollof rice is consistently higher in Accra than in Kumasi throughout the three months. In Accra, the cost peaked in February at 294.5 GH¢



before declining to 286 GH¢ in March, while in Kumasi, the cost increased steadily from January (268 GH¢) to February (278 GH¢) and experienced a slight decrease in March (274 GH¢).

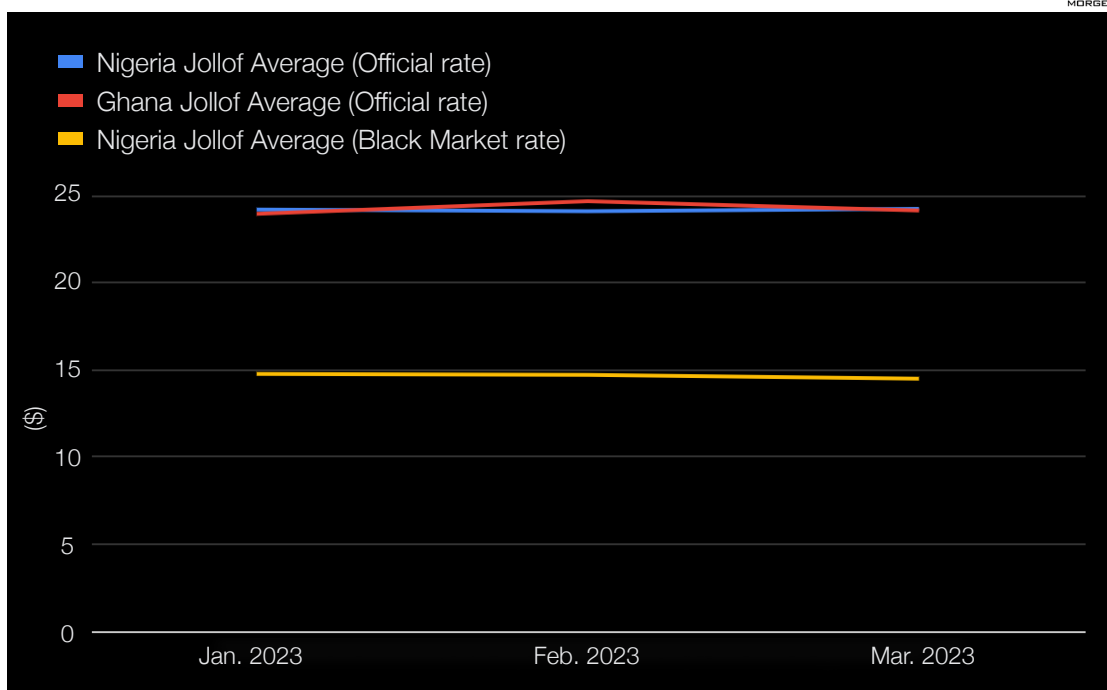
Urban cost differences can account for this. Accra, being the capital city of Ghana, typically has a higher cost of living compared to other cities in the country, including Kumasi. This may result in higher prices for ingredients and other essentials in Accra, which could explain the consistent price difference between the two cities.

As inflation reached 45% in March, it is good to monitor how this affects the most basic living using the Jollof Index. A housewife in Accra said she can't afford food items such as rice, oil, tin tomatoes and even vegetables, which are now very expensive. After the lockdown, she started preparing food in large quantities to minimise cost. According to her, "Nothing goes to waste now in Accra. As for Jollof, I only cook it on special occasions because it is very expensive to cook it for a family."

Another respondent complained that it is very difficult to be economical due to high food inflation. When the prices of rice and oil skyrocketed, her family switched to fufu and beans; she was quick to acknowledge, though, that even cassava and plantain are now equally expensive. On Jollof preparation, she said: "It is less expensive preparing rice stew or soup rather than deciding to prepare jollof, and without at least 150



West African Jollof Index



cedis, I can't prepare Jollof for my family, and we are just four — a proper jollof rice now requires about 250 cedis for just a family of four, and before covid, 80 cedis was enough to jollof on the dining table.”

This data shows the average cost of Nigerian and Ghanaian jollof rice in dollars (\$) from July 2016 to March 2023. Official exchange rates are used for the calculation in both countries, and the data for Ghanaian jollof is only available from January 2023.

It is important to note that the conversion to USD(\$) serves mainly as a means of comparing countries using a uniform base. However, the actual effect on individuals in each country is determined by



fluctuations in the prices of their local currencies. This percentage change is highlighted in the sections devoted to each respective country, as people earn and spend in their local currencies for these ingredients. For more context, the purchasing power parity rate for Ghana and Nigeria as of 2021 were \$2.21 and \$167.71 respectively¹⁰.

From the data, it can be observed that the price of Nigerian Jollof has been increasing over time, with fluctuations. The price started at \$13.42 in July 2016 and increased to \$24.23 in March 2023.

In the only three months for which Ghanaian Jollof data is available (January to March 2023), the price started at \$23.94 and increased to \$24.14.

When comparing the Nigerian and Ghanaian Jollof prices in these three months, Nigerian Jollof is slightly more expensive than Ghanaian Jollof, but using the official Nigerian exchange rate, a country-by-country price list of a popular fast-food chain, Chicken Republic, with branches in both Ghana and Nigeria shows that the price of Ghanaian Jollof is higher:

- Jollof only - Nigeria (\$1.29)
- Jollof only - Ghana (\$1.60)
- Jollof with 1 piece of grilled chicken - Nigeria (\$1.94)
- Jollof with 1 piece of grilled chicken - Ghana (\$4.05)
- Jollof with grilled chicken and drink - Nigeria (\$2.91)
- Jollof with grilled chicken and drink - Ghana (\$4.30)

¹⁰PPP conversion factor, private consumption (LCU per international \$) - Ghana | World Bank

Price differences

- In January 2023, the price of Nigerian Jollof was \$24.19, while the price of Ghanaian Jollof was \$23.94, making Nigerian Jollof \$0.25 more expensive.
- In February 2023, the price of Nigerian Jollof was \$24.10, while the price of Ghanaian Jollof was \$24.68, making Ghanaian Jollof \$0.58 more expensive.
- In March 2023, the price of Nigerian Jollof was \$24.23, while the price of Ghanaian Jollof was \$24.14, making Nigerian Jollof \$0.09 more expensive.

Month-over-month percentage change

- For Nigerian Jollof, the percentage change in dollars from January 2023 to February 2023 was -0.37%, and from February 2023 to March 2023, it was 0.54%.
- For Ghanaian Jollof, the percentage change from January 2023 to February 2023 was 3.05%, and from February 2023 to March 2023, it was -2.18%.

From this analysis, we can observe the following

- The price difference between Nigerian and Ghanaian Jollof fluctuated during the three months in 2023. Nigerian Jollof was more expensive in January and March, while Ghanaian Jollof was more expensive in February.
- The month-over-month percentage change in price was more

volatile for Ghanaian Jollof than for Nigerian Jollof during this period. Ghanaian Jollof experienced a significant increase of 3.07% from January to February 2023, followed by a decrease of 2.18% from February to March 2023. On the other hand, Nigerian Jollof experienced smaller fluctuations in the same period, with a decrease of 0.39% and an increase of 0.58%, respectively.

This shows that food price fluctuations and affordability in the region may be a problem in the near future. While there is limited data on Ghana for more comparison, we will watch to see as things unfold in the coming quarter.

CONCLUSION◀◀◀

The data highlights the impact of various factors, including fuel scarcity, cash shortages, insecurity, natural disasters, and festive demand, on food prices in Nigeria. It also shows the impact of inflation on food prices in Ghana. In both countries, the analysis reveals that the cost of making a pot of Jollof rice is significantly high, placing increased financial pressure on families and potentially reducing their quality of life.

To address these challenges, governments and relevant stakeholders must focus on improving agricultural productivity, addressing supply chain inefficiencies, and implementing measures to curb inflation. Additionally, addressing the issues of fuel scarcity and transportation costs is essential for stabilising food prices and ensuring the affordability of staple food items, such as Jollof rice, for residents in the affected regions.

Furthermore, the Jollof Index comparison between Accra and Kumasi in Ghana highlights the influence of urban cost differences on food prices. As Ghana's inflation stood at 45% in March, it is crucial to monitor how this affects the most basic living standards using the Jollof Index. By providing this valuable data, we expect the Jollof Index to help drive targeted interventions and support measures aimed at alleviating the financial burden on households and promoting food security.

ABOUT SBM ◀◀◀

SBM Intelligence is an Africa-focused geopolitical research and strategic communications consulting firm that addresses the critical need for political, social, economic and market data and big data analytics. We employ various methods of data collection. Our Data Collection Methodology team advises on data collection methods for all ONS social and business surveys. With clients both within the business and the wider government community, we aim to provide expert advice on data collection procedures and carry out research leading to improvements in survey quality.

Since 2013, we have provided data analytics and strategic communication solutions to clients across various sectors in Nigeria, Ghana, the Ivory Coast, Kenya, South Africa, the UK, France and the United States.