



AFEX 2022 Wet Season Crop Production Report

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A photograph of a field of young green plants, likely corn seedlings, growing in rows. The plants are vibrant green and appear to be in the early stages of growth. The soil is dark brown and textured. In the background, there are trees and a clear sky, suggesting a rural or agricultural setting. A semi-transparent red overlay covers the bottom portion of the image, providing a background for the text.

Executive Summary

EXECUTIVE SUMMARY

In the last three to five years, Nigeria's journey towards achieving food security has been confronted with major global shocks, climatic changes and more, with implications for food affordability, availability, and accessibility. Nigeria's most consumed grains are currently faced with declining food balance sheets as consumption levels rise faster than production levels, worsening food insecurity. We expect to see further decline in food balances in some key commodities caused by the ongoing Russia-Ukraine crises and recent flash floods experienced in several states.

The war in Ukraine has caused major supply disruptions and led to historically higher prices for several commodities especially in the global space. On the back of higher price effect on fertilizers, and further worsened by floods across states, Nigeria is expected to grapple with lower output in the new season as farmers consumed less fertilizer during the 2022 wet season planting as revealed by our survey. This is a major insight of the report.

Our survey also revealed that combined with farmers' reduced ability to access and afford

fertilizer during the planting season, most farmers were unable to increase the number of hectares compared to the previous year. However, farmers resorted to using more herbicides and more local seeds varieties to compensate for low fertilizer usage to protect their yields.

We expect to see some level of sustained rally in the prices of commodities in the new season especially in Maize, Sorghum and Paddy on the back of key factors like slump in production level, increased international demand, weakening of the naira and higher energy prices with impact on logistics.

For policymakers, a short-term priority could be to provide targeted support to poorer households facing higher food and energy prices. Also, there must be a dual approach to be able to moderate prices across commodities while stemming inflationary pressure on food in the coming season by addressing overall production levels as well as seasonality of supply. While there is need to intensify efforts to spur production levels, reserves could be held across all grain commodities and released strategically during the season.

On the back of lower production output this year, investors could be well positioned to take advantage of possible price appreciation in the new season across commodities. We believe investment in commodities in the new season remains a better hedge against looming inflationary pressures compared to other asset classes. Against the commodities market, investors could be exposed to downside risks amid the CBN's hawkish monetary stance in the battle of inflation and pre-election bearish effects on equities performances. Also, the Nigerian fixed income space is still largely characterized by a negative return environment.

A photograph of a sunset over a field. The sun is a bright, glowing orb in the upper right, casting a warm orange and yellow light across the sky. Below the horizon, a dark silhouette of trees or a distant town is visible. In the foreground, a single stalk of grain, possibly wheat or barley, stands out, its head partially in shadow. The lower half of the image is overlaid with a semi-transparent red band. The word "Introduction" is written in white, bold, sans-serif font on the left side of this red band.

Introduction

INTRODUCTION

The AFEX 2022 crop production survey covered all geopolitical zones in Nigeria with a focus on Maize, Sorghum, Soybean, Paddy Rice, and Cocoa. These commodities are currently trading actively on AFEX Commodities Exchange and results from the survey will help food processors, investors, and other participants on the Exchange, the public inclusive, to take positions ahead of the 2022/23 trading season which typically kicks off in November. The broad objective of this survey is to analyze the food security status of Nigeria. To achieve this, we sought to:

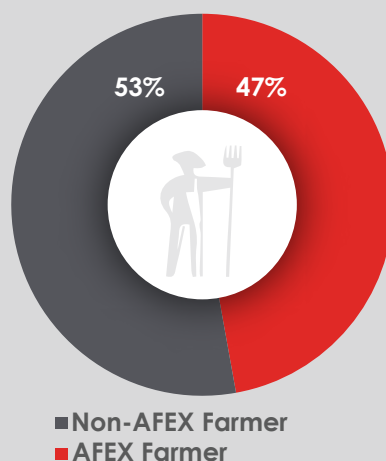
- Understand the planting behavior of AFEX & non-AFEX farmers in the 2022 wet season.
- Forecast expected volume of production for the year.
- Provide an outlook for commodity prices.
- Make recommendations to boost Nigeria's crop production capability.

As we have adopted in the last 3 years, we considered a sample population that consisted of AFEX and Non-AFEX farmers to give a national representation as we focused on understanding the impact of farm size, inputs usage, weather, and subsequently, the output expectations of farmers on production levels. These factors were instrumental in informing our forecast for production levels across all commodities captured in the survey this year. We completed a survey of 20,677 farmers in key producing regions which formed the basis for analysis and forecast respectively.

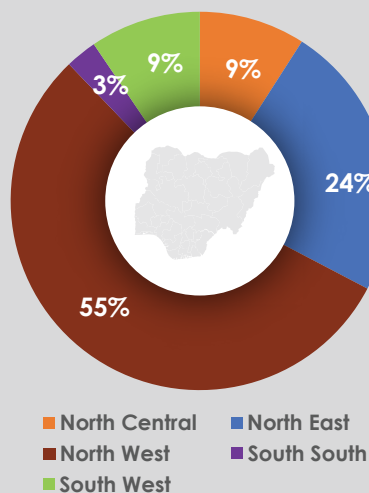
Our survey this year reveals the adoption of input substitution during the 2022 wet season planting as hike in fertilizer prices,

Key Demography Snapshots

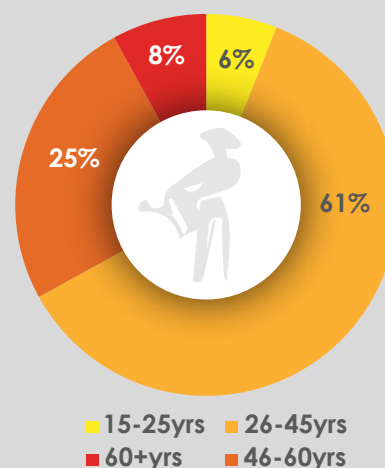
Farmer Type



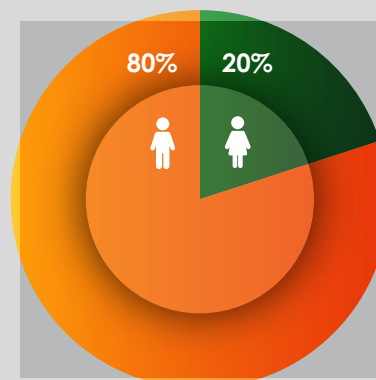
Regional Distribution



Age Distribution



Gender



AFEX 2022 Wet Season Crop Production Report

induced by the Russia-Ukraine war, saw farmers utilize less fertilizer. This has been an historical norm as period of fertilizer price surge induces a slump in consumption levels of the product. Farmers, on the other hand, utilized more improved seeds and herbicides to boost productivity while using less pesticides.

As been the case in prior years, most farmers remain stuck with the same hectare size cultivated the previous year. Our analysis reveals that 79% of farmers cultivated the same number of hectares in 2022 as they did in 2021. This could be explained by the fact that farmers already struggle to afford production cost amid rise in prices of inputs, hence, buying or renting more land may prove difficult.

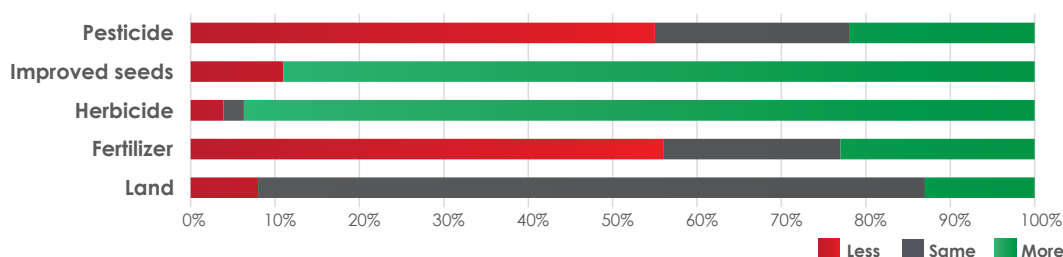
Limited access to inputs continues to lead the chart of farmer's top concerns over the years. However, excess rainfall posed a major threat to farmers' operations this year, with devastating effects on farmers' farms and investments, exacerbating flooding in 29 of 36 states with over 640,000 hectares washed-off. This we believe will cause delayed harvest and worsen national food security this season and beyond respectively.

National insecurity has been a big element that is claimed to hurt Nigeria's commodity production. However, our survey reveals that farmers were largely secure during the year's planting season. While insecurity poses a threat to Nigeria food production,

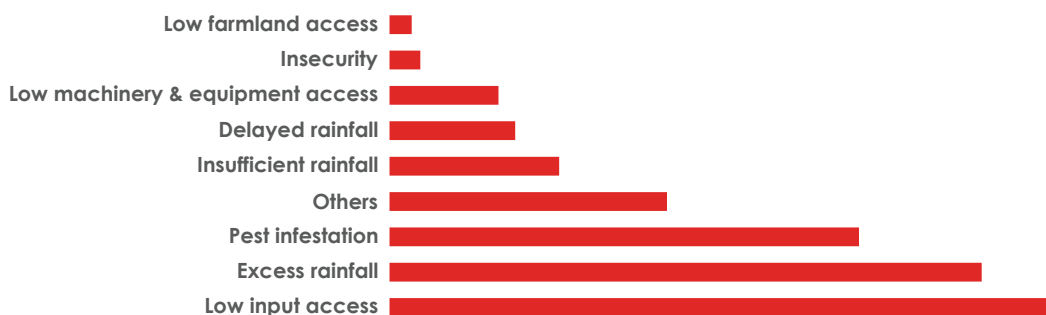
our survey reveals that access to inputs restricted by global unrest combined with climate change poses a greater threat to Nigeria's food systems.

Furthermore, the forecast analysis of the survey across all commodities revealed that the farmers' security level was not a key component in determining output this year, but rather that weather, input consumption, and farm size were the main components determining farmers' output. Both farm size and fertilizer use were positively related to farmers' output across all commodities, indicating that the more of these inputs used, the greater the amount of output. Rainfall, on the other hand, shows an inverse association with output across all commodities.

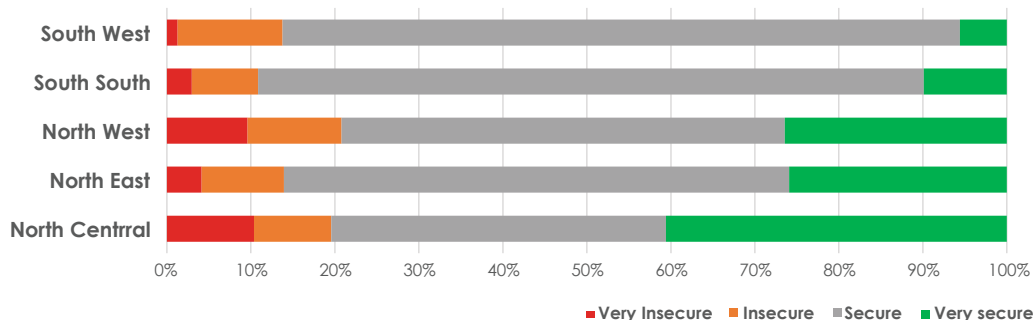
Input and Land Usage Y-o-Y Comparison



Factors Affecting Planting Season 2022



Regional Security Stability





Maize

AFEX 2022 Wet Season Crop Production Report

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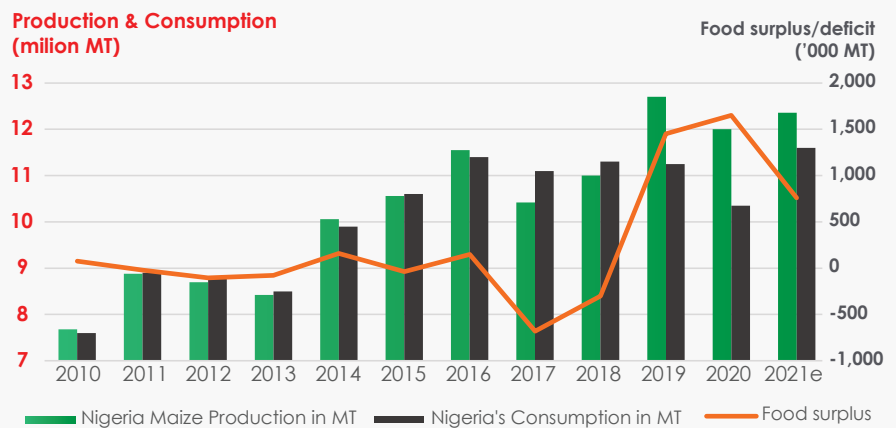
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3 years, we considered a sample population that consisted of AFEX and Non-AFEX farmers to give a national representation as we focused on understanding the impact of farm size, inputs usage, weather, and subsequently, the output expectations of farmers on production levels. These factors were instrumental in informing our forecast for production levels across all commodities captured

in the survey this year. We completed a survey of 20,677 farmers in key producing regions which formed the basis for analysis and forecast respectively.

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Nigeria's Maize Food Balance

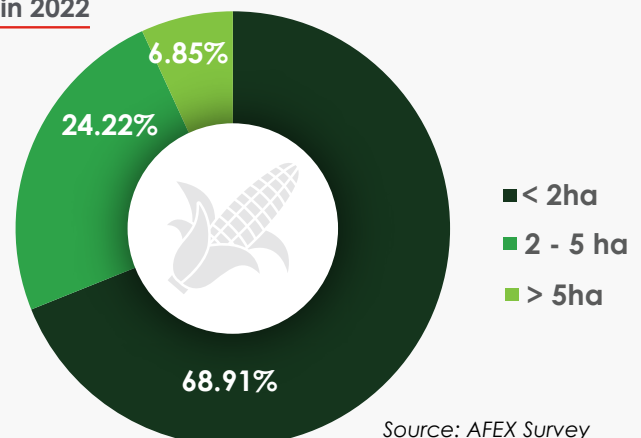


Source: FAO, IndexMundi, AFEX Research

LAND USAGE

Insight from our survey shows that 67% of the maize farmers surveyed were smallholder farmers that cultivated less than 2ha in 2022. This is consistent with the fact that about 88% of farmers in Nigeria are small scale farmers according to the FAO. The survey shows that the majority of maize farmers have more than 10 years of experience, and despite the farmers being in the business for so long, there is little to no growth in their farm size and this restricts total supply.

Maize Land Usage in 2022



Source: AFEX Survey

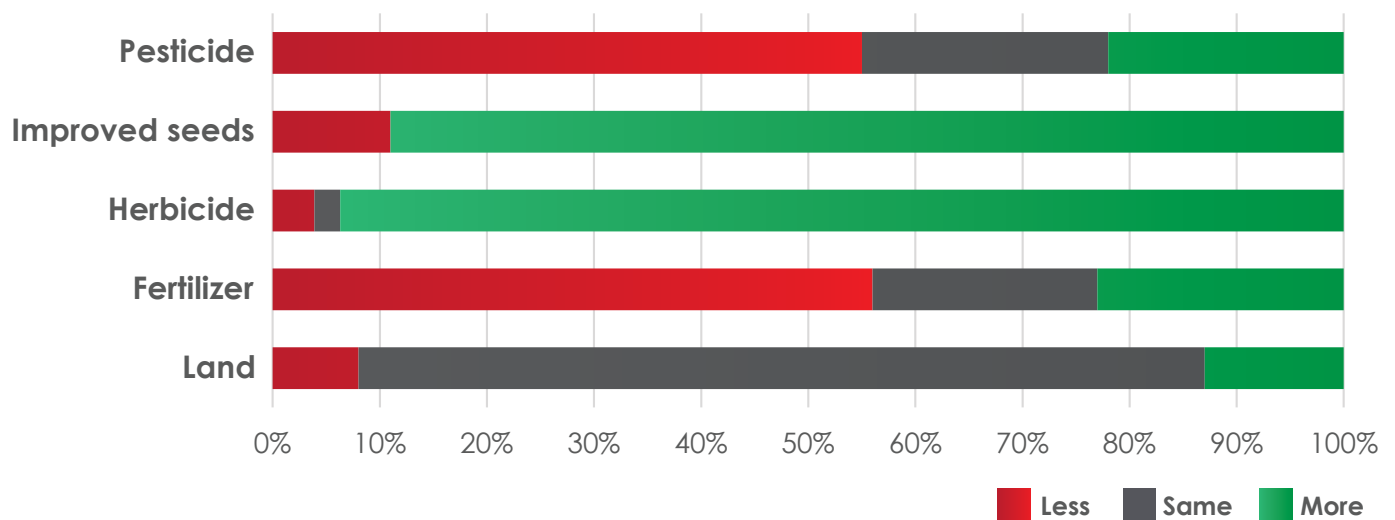
INPUT CONSUMPTION

Our survey shows that a majority of the farmers used less fertilizer and pesticide this season. Global developments in supply and exchange rate resulted in fertilizer prices doubling in naira. Analysis

has shown that high fertilizer price leads to lower consumption of fertilizers as farmers cannot afford to buy a larger quantity of the product.

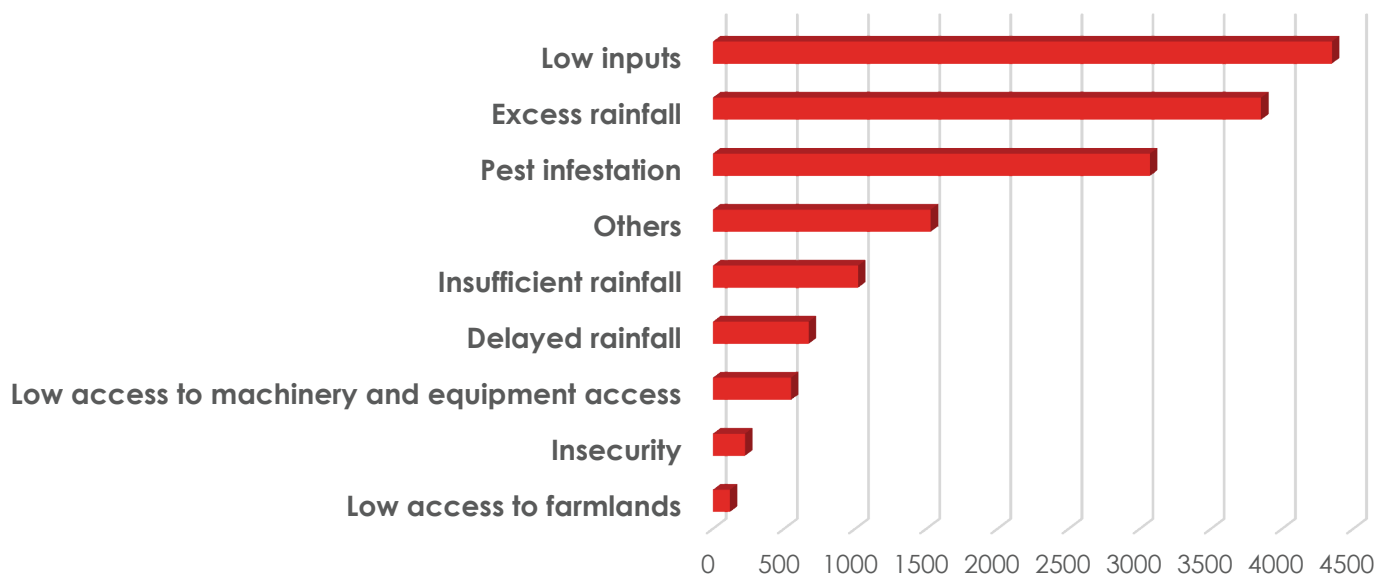
Our survey showed that the top factors that affected planting of Maize in 2022 were excess rainfall, low inputs, and pest infestation.

Input Use for Maize Planting



Source: AFEX Survey

Factors Affecting Maize Planting in 2022



Source: AFEX Survey



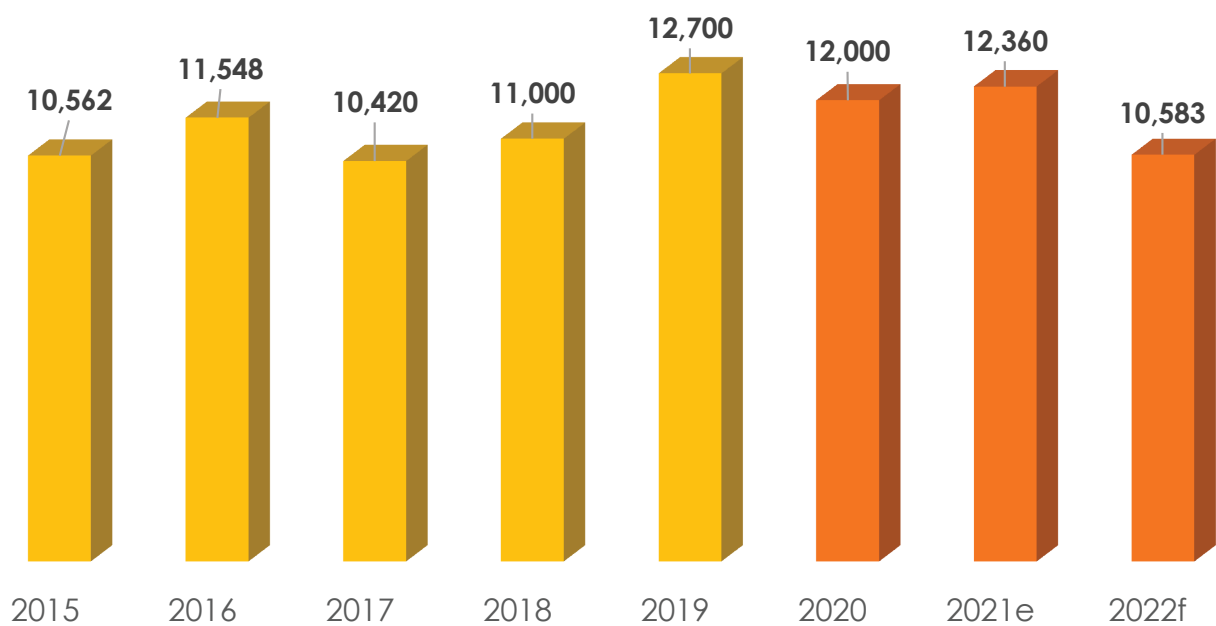
MAIZE PROJECTED OUTLOOK

On the back of a decline in farmers that engaged in maize cultivation during the 2022 wet season planting amid higher fertilizer prices and

low fertilizer usage by farmers who planted maize, we forecast a decline by at least c.14% in production volume this season. This should

put annual maize production to about 10.58 million mt in 2022

National Maize Output ('000 tonnes)



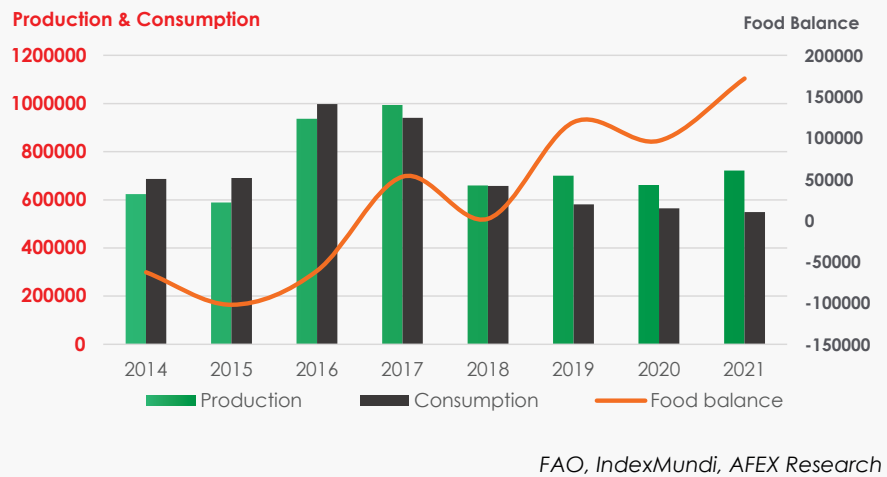
Source: FAO, AFEX Estimations



Soybean

There is a fast-growing market for Soybean in Nigeria due to the increased demand for soybean meal by the rapidly growing poultry sector, combined with the demand for soybean by industrial sector for oil production. The upward trend in soybean consumption can also be traced to the fact that soybean oil is an alternative to palm oil and is the second most consumed and produced vegetable oil. Despite the upward trend in Soybean production, there is an impending threat to Soybean availability considering that demand increases faster than supply. Currently, production level is at par with the consumption level, this shows that measures must be put in place to spur production of the commodity.

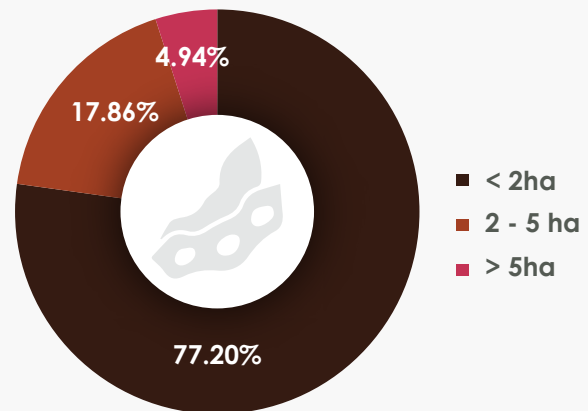
Nigeria's Soybean Food Balance ('000 MT)



LAND USAGE

Majority of the Soybean farmers surveyed revealed that they cultivate less than 2 hectares of the commodity. One of the factors hindering Soybean production level from attaining its full capacity is because the crop's cultivation is largely done by smallholder farmers who plant the crop alongside other commodities.

Soybean Land Usage in 2022



Source: AFEX Survey

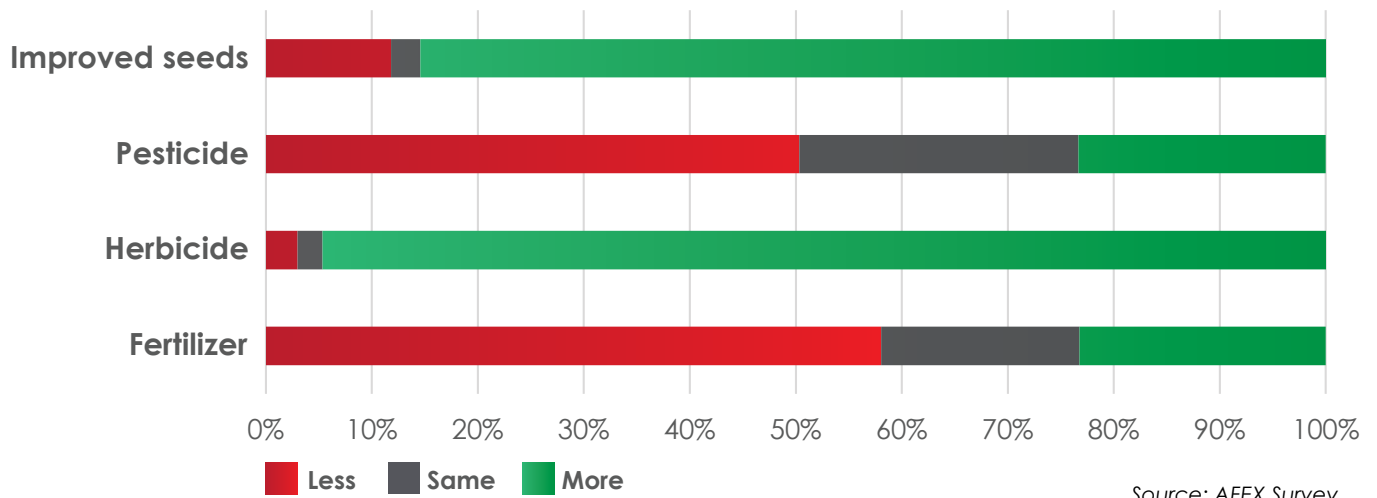
INPUT CONSUMPTION

The data analyzed revealed that c.59% of soybean farmers used less fertilizers in planting the commodity this year compared to last year,

while c.50% attested to using less pesticides this year. However, we saw an increase in the adoption of improved seeds and herbicides as

a very large percentage of farmers indicated that they used more of these inputs this year for planting.

Soybean Input Consumption in 2022



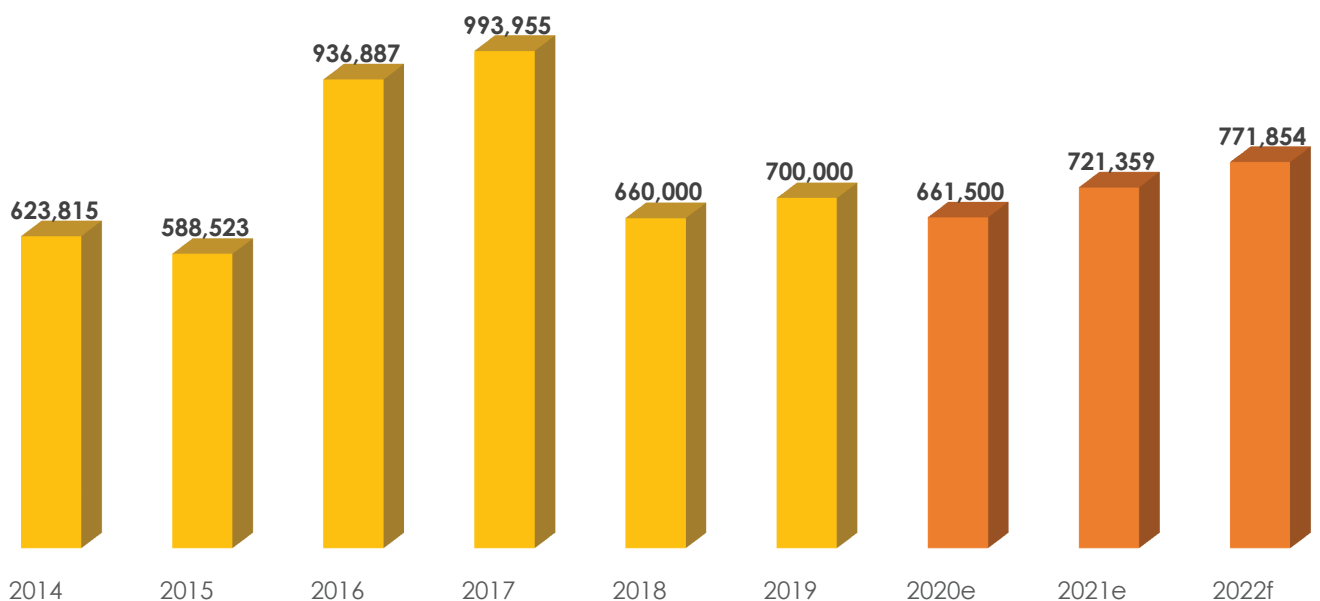
SOYBEAN PROJECTED OUTLOOK

Farmers' responses show that they are very optimistic about increase in production output of the commodity as majority of respondents forecasted that output this season

would be greater than last year's. This is in line with our estimate for the year which shows that soybean production is expected to increase by c.7% as more farmers

rotate into planting the commodity due to its low fertilizer requirement.

Soybean Output ('000 MT)



Source: FAO, Indexmundi, AFEX Research



Paddy Rice



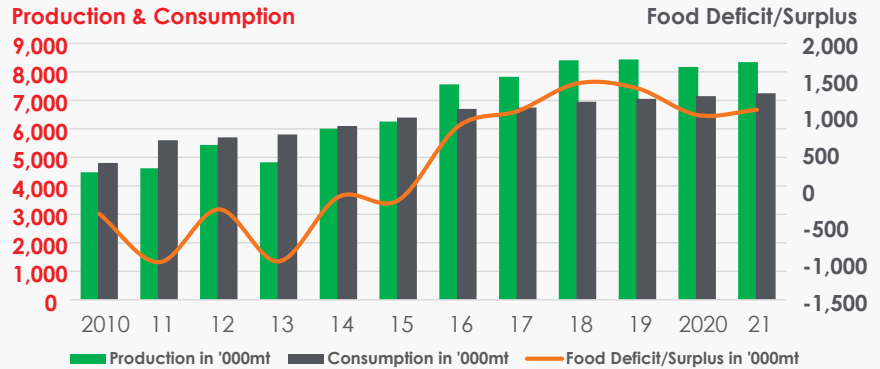
Paddy rice stands as an important staple as over half of the global population depends on the commodity as a major part of their diet. Paddy rice is the third most produced agricultural crop behind sugarcane and maize. China is the top producer of the commodity, followed by India and Indonesia. These top three countries account for more than half of global rice production according to data from FAO.

Nigeria is the largest producer of paddy rice in West Africa. Paddy rice is one of the most consumed staples in Nigeria just like Maize and Cassava. Over the years, the consumption level of the commodity has been outpacing the production level, leading to a growing

dependency on imports. Although there have been several interventions to spur rice production, production levels have not been

enough to meet the demand the commodity. There is a need to raise productivity and increase production of the commodity.

Paddy Rice Demand and Supply Dynamics (MT)

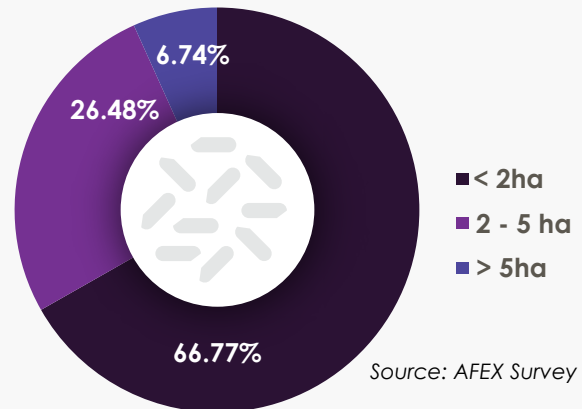


Source: FAO, IndexMundi, AFEX Research

LAND USAGE

As observed in most of the other commodities, most paddy rice farmers fall in the AFEX small scale categorization following that c.67% of farmers surveyed cultivated less than 2 hectares of land for the commodity.

Paddy Rice Land Usage in 2022



Source: AFEX Survey

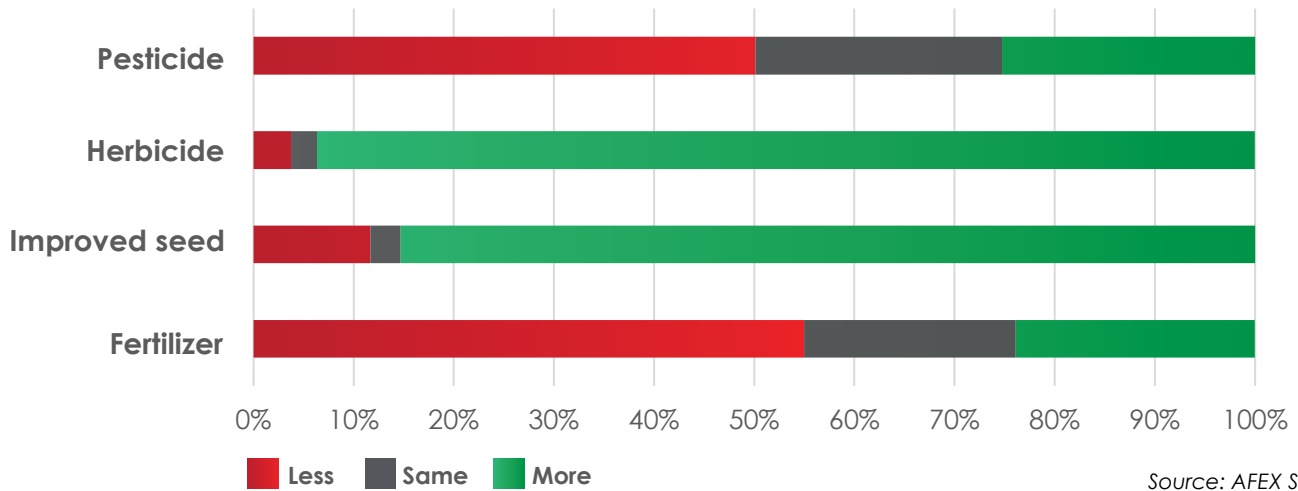
INPUT CONSUMPTION

Farmers used less bags of fertilizer and pesticide during wet season planting of Paddy rice this year. We however saw a high adoption

rate of Paddy rice improved seeds as 85% of Paddy rice farmers revealed that they used it. The use of improved seed in planting helps

to increase production outputs. About 94% of the farmers surveyed used herbicides in the cultivation of Paddy rice.

Paddy Rice Input Consumption in 2022



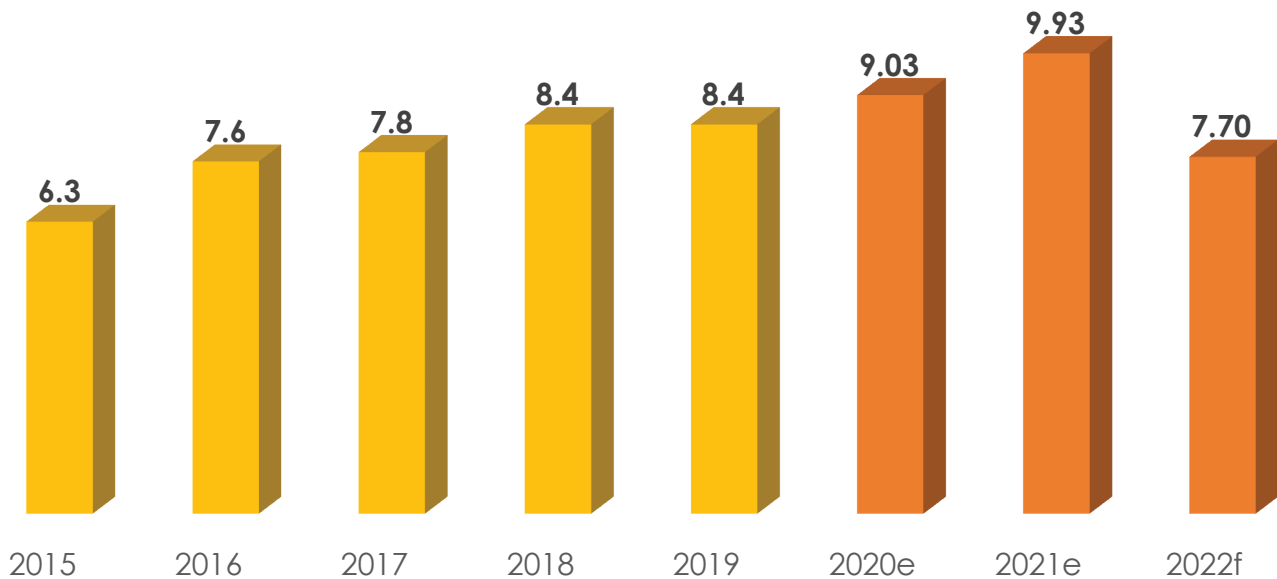
PADDY RICE PROJECTED OUTLOOK

Majority of the farmers have high output expectation for the commodity despite the lower usage of fertilizer and pesticides this season and on the back of it expect sales to be higher than the previous year. We however forecast at

least a 22% decline in paddy rice production volumes this year. Our pessimistic stance this year is due to low planting activities in the wet season for paddy rice across major producing states as farmers plan for dry season planting and

harvest. More devastating is the effect of flash floods displacing over 160,000 hectares of farmlands. Paddy rice farms have been most affected due to flooding this year.

Paddy Rice Output (Million MT)



Source: FAO, Indexmundi, AFEX Research



Sorghum

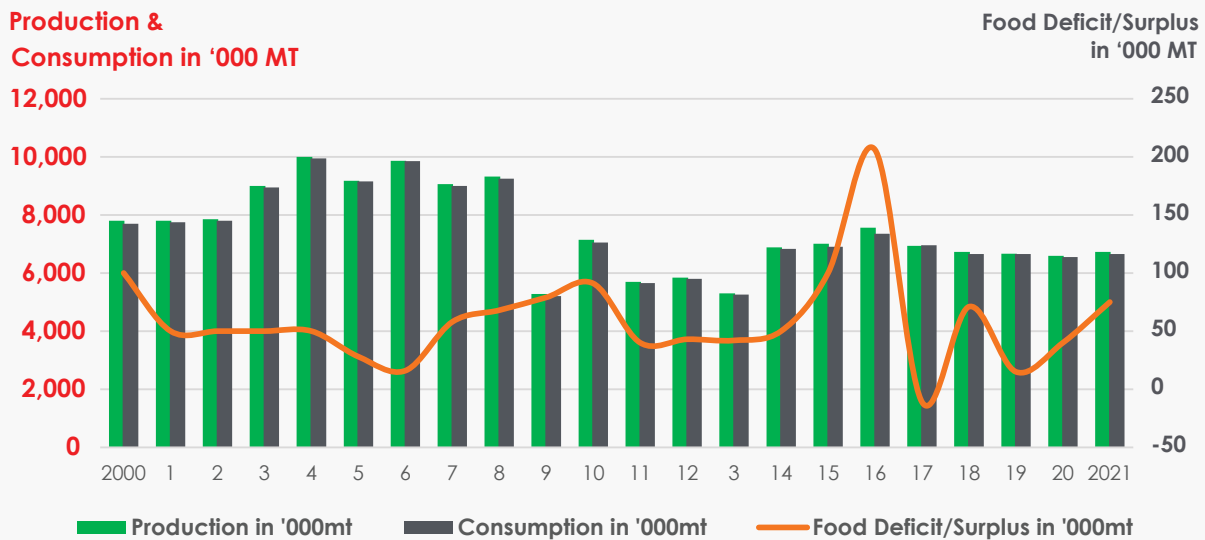
Nigeria stands as the largest producer of sorghum in Africa, followed closely by Ethiopia. According to FAO, Sorghum is the largest staple cereal accounting for 50% of the total output and occupying about 45% of the total land allocated to cereal production in Nigeria. However, the commodity's yield is low, 1.23 ton/ha compared to the USA's yield which

stands at 4.59 ton/ha. Challenges that affect sorghum productivity in Nigeria include striga infestation, drought stress, declining soil fertility and lack of high yielding sorghum varieties.

There is a threat to Nigeria's sorghum food balance as consumption level is almost at par with production levels. Although

self-sufficient in meeting local demand, the country has not been able to generate significant revenue from the export of the commodity as export is mostly informal. There exists a huge potential for Nigeria to maximize its export potential of the commodity due to the growing demand for the commodity by China.

Sorghum Food Balance in Nigeria (MT)

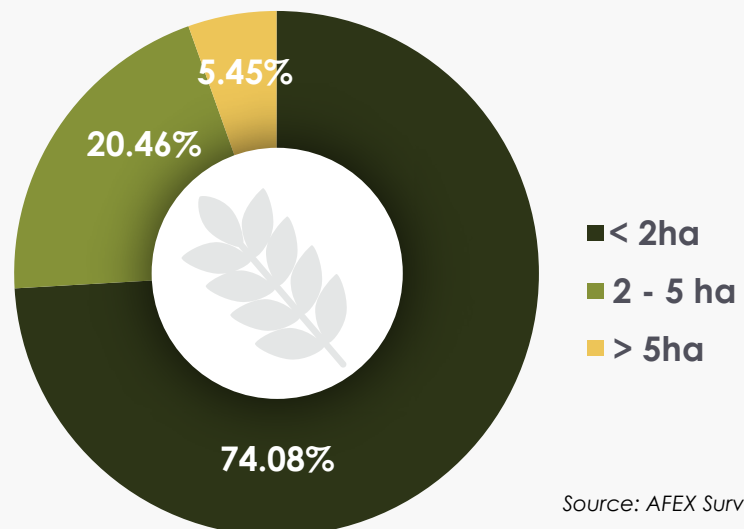


Source: FAO, IndexMundi, AFEX Research

LAND USAGE

Like the same trend we have been observing in other commodities, majority of the Sorghum farmers cultivated small farms (less than 2 hectares). Size of farmland is an important factor to consider in agriculture because small farm sizes hinder large agricultural activity such as the use of mechanization, access to credit and investment in facilities such as irrigation. However, we saw a decline in the number of smallholder farmers from 2021 to 2022, and an increase in the number of farmers who own medium sized farm (between 2 to 5 ha) and large sized farm. This shows that some Sorghum farmers have been able to upscale their production in a year.

Sorghum Land Usage in 2022



Source: AFEX Survey

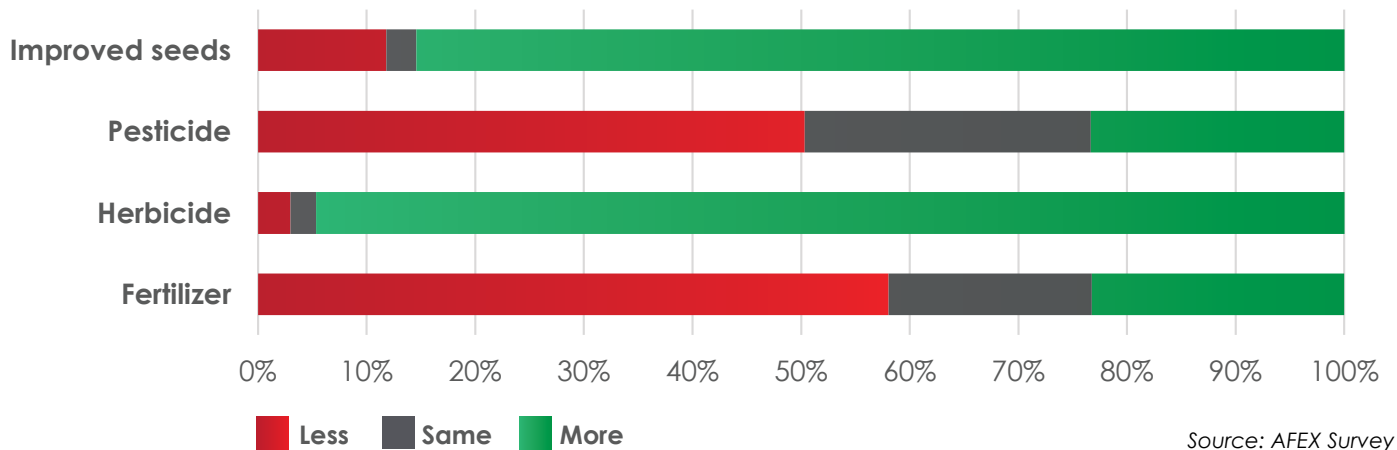
INPUT CONSUMPTION

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Sorghum Input Consumption in 2022



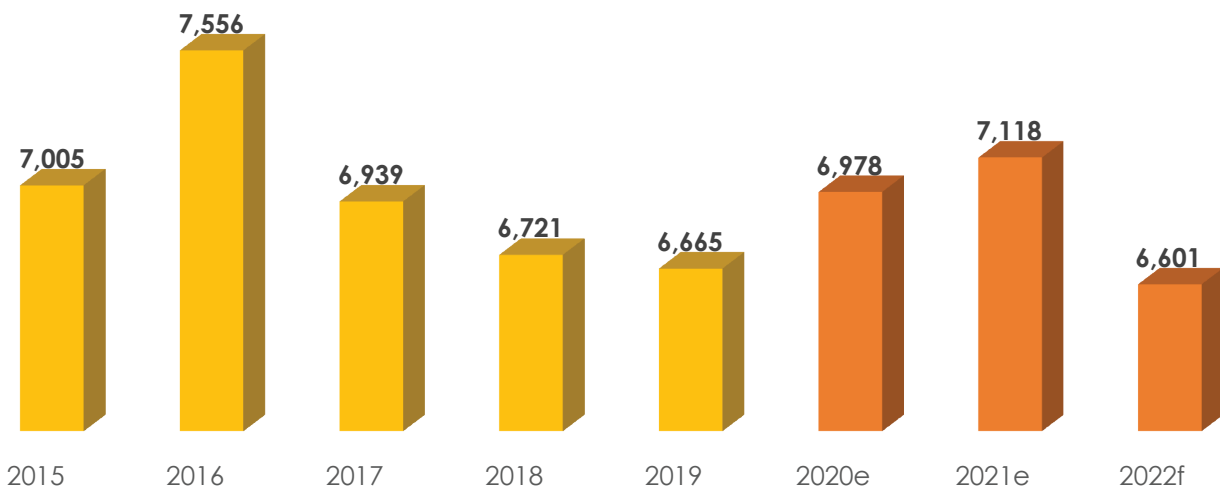
SORGHUM PROJECTED OUTLOOK

Most sorghum farmers anticipate an increase in the production volume of Sorghum this year. Majority of the farmers expect that sales

of sorghum this year will be higher than the previous year's on the back of taking advantage of high price. We however forecast

a decline of 7.27% in output levels in 2022 on the back of low fertilizer usage by farmers and excess rainfall.

Sorghum Output (000 MT)



Source: FAO, Indexmundi, AFEX Research



Cocoa

Cocoa stands as a commodity with economic value and importance as it helps to generate export revenues, income, and employment. It also serves as an important ingredient to the confectionery, food and beverage industry and also the cosmetics and pharmaceutical industries. Cocoa production is volatile as it is easily prone to changes in weather

conditions, attacks of pest and diseases, low mechanization, low investment, low intake of innovation and technology and, limited knowledge on cocoa resources in the key producing countries.

Africa is the largest cocoa producing region, producing nearly two-thirds of the world's cocoa production. Cote d' Ivoire and Ghana are

the two leading cocoa producing countries globally as they have a combined market share of 52% of global supply in 2020 as analyzed from the FAO production data. Nigeria is the fourth largest cocoa producer in the world accounting for 5.9% of global supply, lagging Indonesia accounting for 13%.

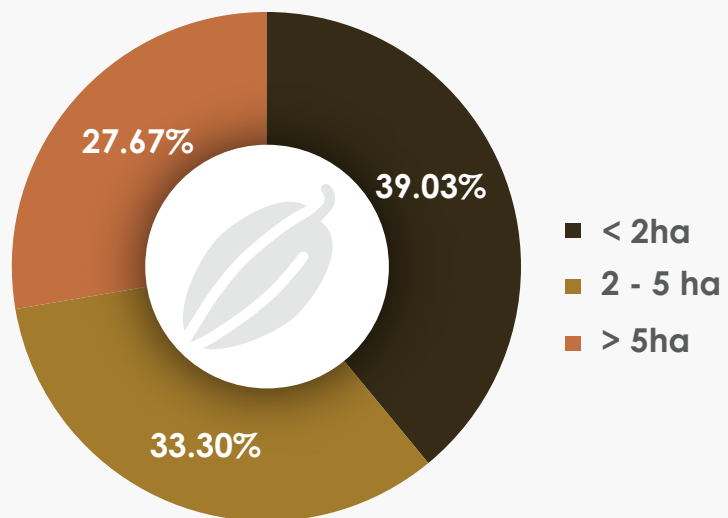
LAND USAGE

From the analysis, a larger proportion of farmers surveyed cultivated less than 2 hectares and have more than 10 years' experience in cocoa planting, with most of the population being between 46 to 60 years old.

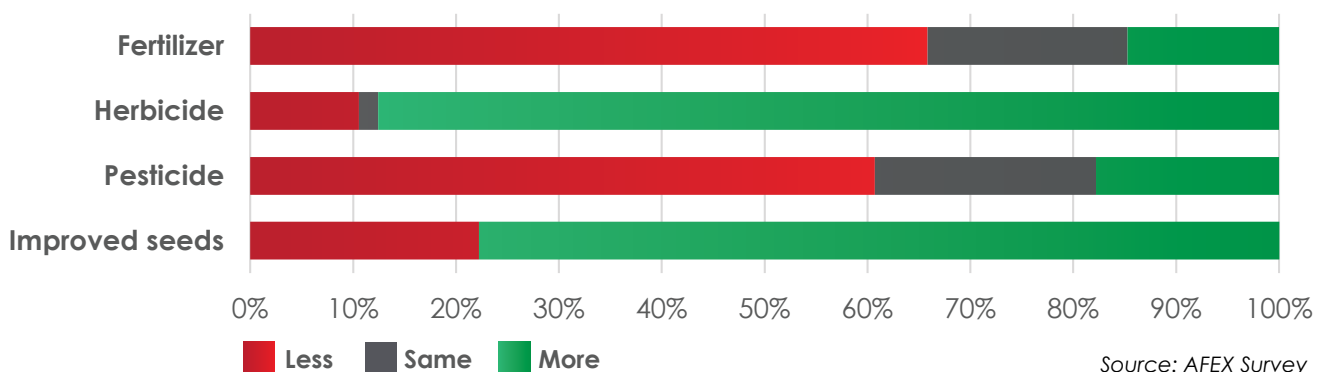
INPUT CONSUMPTION

Our analysis revealed that majority of the cocoa farmers used less pesticides in cultivation of cocoa as observed in other commodities. We however saw a positive response in the use of herbicides and improved seeds as farmers attested to using more of these inputs.

Cocoa Land Usage in 2022



Cocoa Input Consumption in 2022





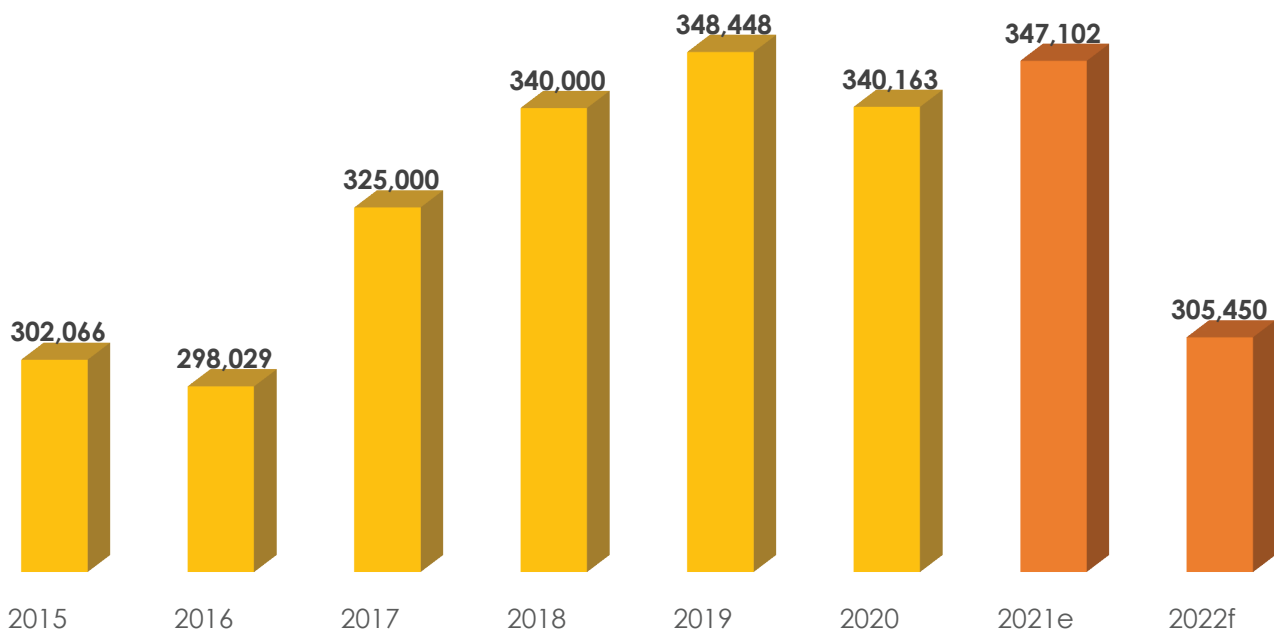
COCOA PROJECTED OUTLOOK

The top factors that affected cocoa this planting season as revealed by the surveyed farmers include low access to input, pest infestation, delayed rainfall. These factors are expected to reduce production volumes of the commodity. We however project a 12% decline in output levels of the commodity this year. Factors that

are expected to limit production levels of the commodity this year include pest and disease attacks, aging cocoa trees, low pesticide usage and low use of mechanization. The international outlook for Cocoa production volumes this year is bleak as the International Cocoa Organization predicted a decline of 6.8% in global Cocoa

production in 2022 and a 9.9% decline in Africa's Cocoa production volumes.

Cocoa Production Trend



Source: FAO, Indexmundi, AFEX Research



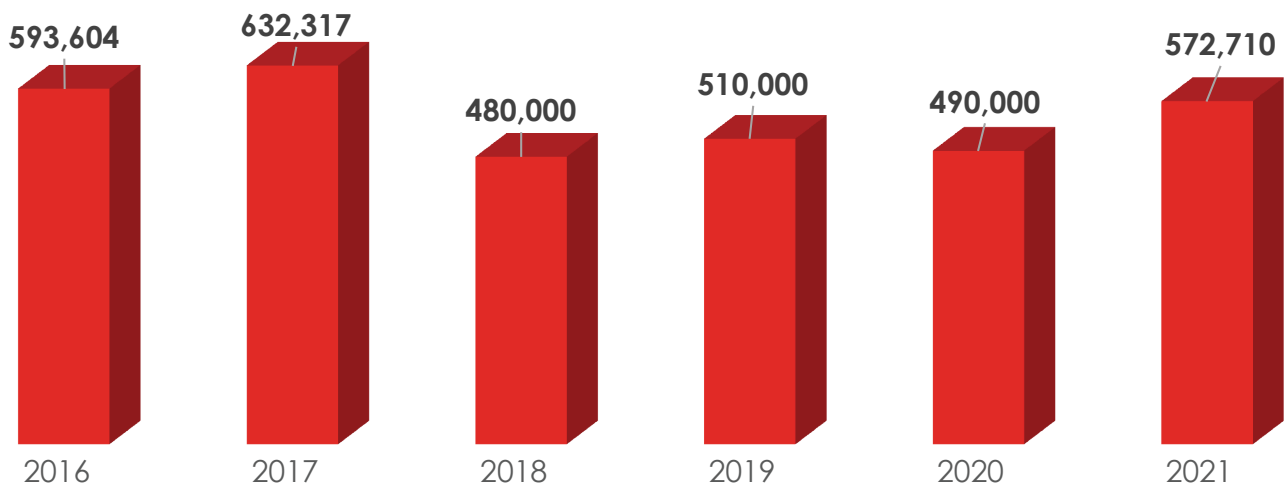
Sesame

Sesame is a plant that is grown for edible oil. Sesame seeds is the fourth biggest non-oil export product. Sesame seeds are very nutritious and confer health benefits. The seeds contain very high oil content, fiber, vitamins, minerals, and unsaturated fatty acids. The commodity is of high economic value as it is used in bakery and confectionary, medicines, and cosmetics. It is also processed into

paste, oils and meals. India and China are the top sesame producing countries in the world. Nigeria is the largest producer of sesame seeds in Africa. Sesame seeds was the seventh biggest of Nigeria's total exports with total of 0.79% share of total exports in the first quarter of 2022. China and Japan are the highest importer of sesame produced in Nigeria.

Despite the increasing global demand for sesame seeds, Nigeria's yield for the commodity stands at 0.79 ton per hectare, this is small compared to the 1.61 ton per hectare yield in China. This low yield is on the back of knowledge gap and poor crop management practices adopted by smallholder farmers in Nigeria amid other factors like low access to inputs.

Nigeria's Sesame Production Trend (MT)

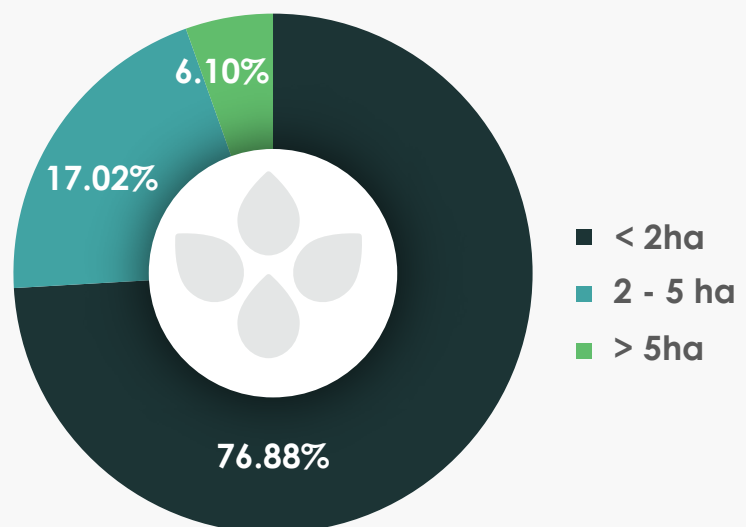


Source: FAO, NAERLS, AFEX Research

LAND USAGE

Our analysis revealed that most sesame farmers were smallholder farmers as majority of them cultivated less than 2 hectares of farmland during the 2022 wet season planting. The major factors hampering sesame production this season include low access to inputs, excess rainfall, and pest infestation. Low access to farmlands did not however seem to be a significant factor affecting planting this season. This is in line with 2021 findings.

Cocoa Land Usage in 2022

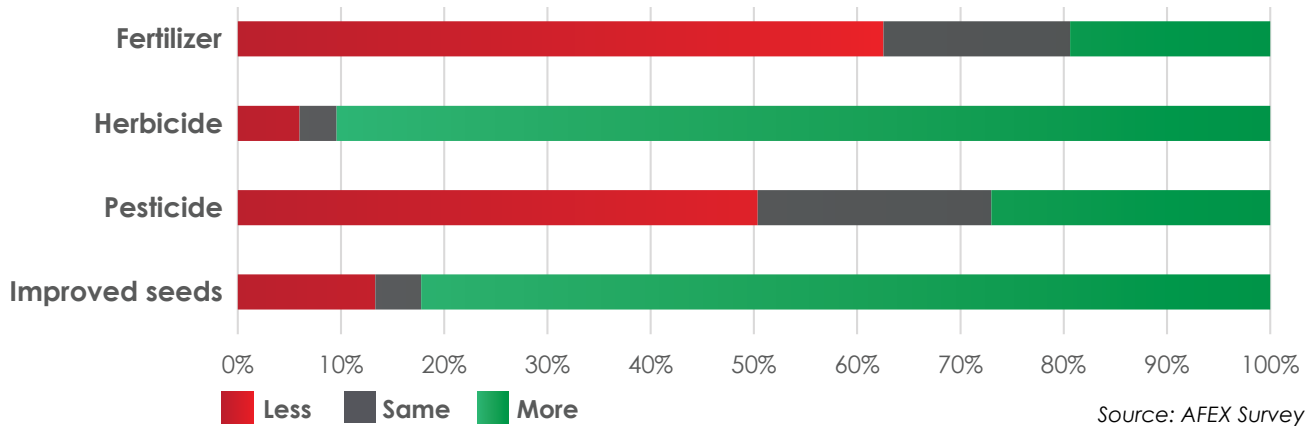


Source: AFEX Survey

INPUT

Most farmers responded to having used less bags of fertilizers and pesticide than in 2021. However, more herbicides and improved seeds this year.

Sesame Input Consumption in 2022

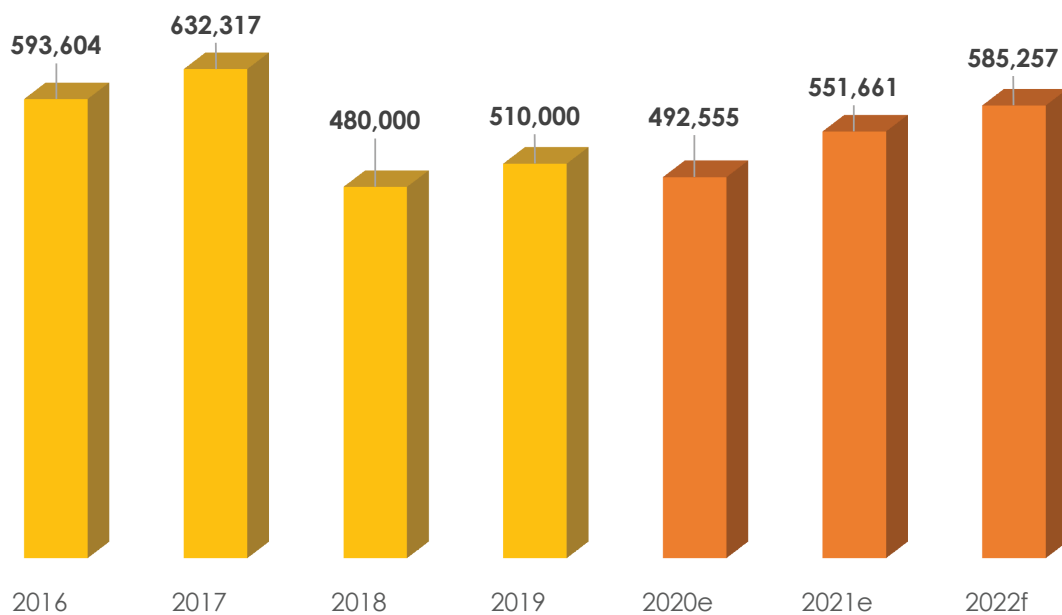


Sesame Projected Output

Top factors that affected sesame planting this season were low access to inputs. We however project a 6.09% increase in sesame production year on year. This is on the back of sesame production which is twice in a season and high price

expectation for the commodity. This agrees with farmers' expectations, c.80% of farmers anticipate higher production volume upon harvest this year. On the back of higher production volumes and increasing demand for the

commodity, most farmers expect higher sales in the new season and will take advantage of high price of the commodity in the market.



Source: FAO, Indexmundi, AFEX Research

A photograph of two men walking through a field of tall, green grass. The man on the left is wearing a blue shirt, a tan vest, and a grey cap, and is gesturing with his right hand towards the man on the right. The man on the right is wearing a light blue long-sleeved shirt and dark pants. The background is a clear blue sky. The bottom half of the image has a red overlay.

AFEX 2022/23 Commodity Season Price Outlook



MAIZE PRICE OUTLOOK

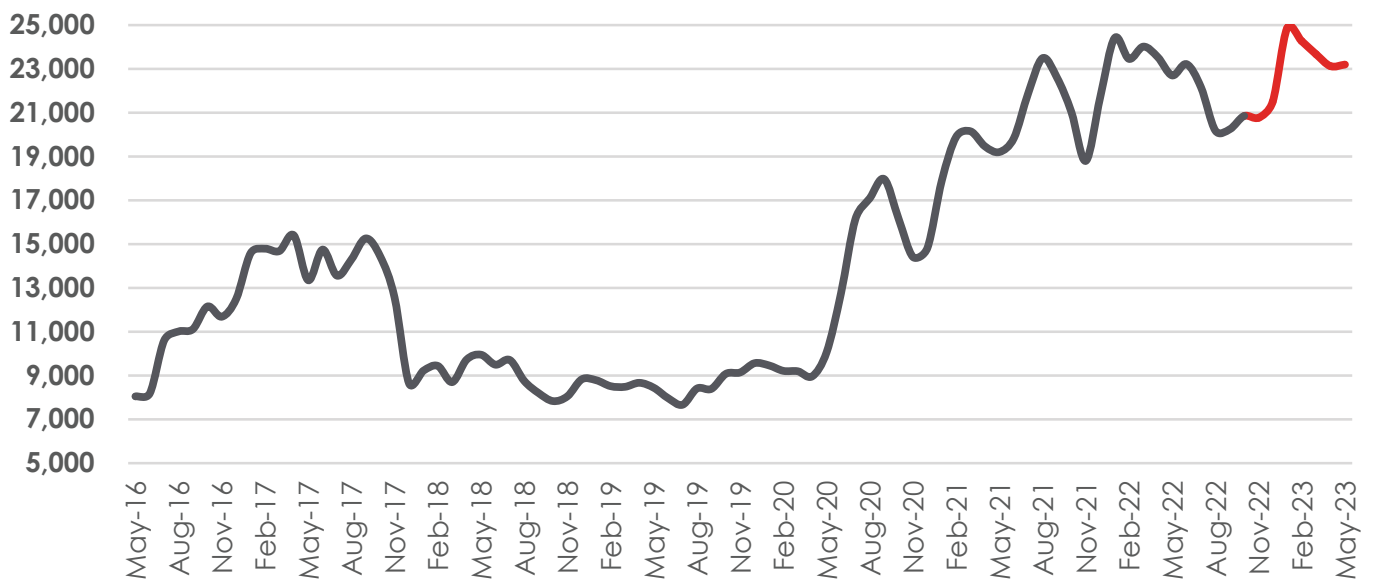
We saw a surge in the price of maize by 16% in the first 4 months of the 2021/22 trading season, settling at NGN243,996/mt in January 2022. Maize prices have however sustained a bearish run on the back of supply glut amid low demand as the biggest buyers of the commodity were sitting on large stock of inventory. Up until October 2022, we saw a marginal

uptick by 3% as demand for old maize stock increased due to the unacceptable moisture content level of new maize. This saw maize record a season-to-date performance of a marginal 3.6%, closing the season at a monthly average of NGN202,389.50/mt.

Production level is forecasted to decline by c.14%. We, therefore,

envisage a higher average price ranging between NGN214,980/mt and NGN220,000/mt by the end of Q4 2022, compared to an average price of NGN210,229/mt in Q4 2021. The average price of maize is expected to rise by at least 23% between Q4 2022 and Q1 2023, ranging between NGN235,000/mt and NGN248,000/mt.

Maize Monthly Average Price (NGN/Kg)



Source: AFEX Estimation



SOYBEAN PRICE OUTLOOK

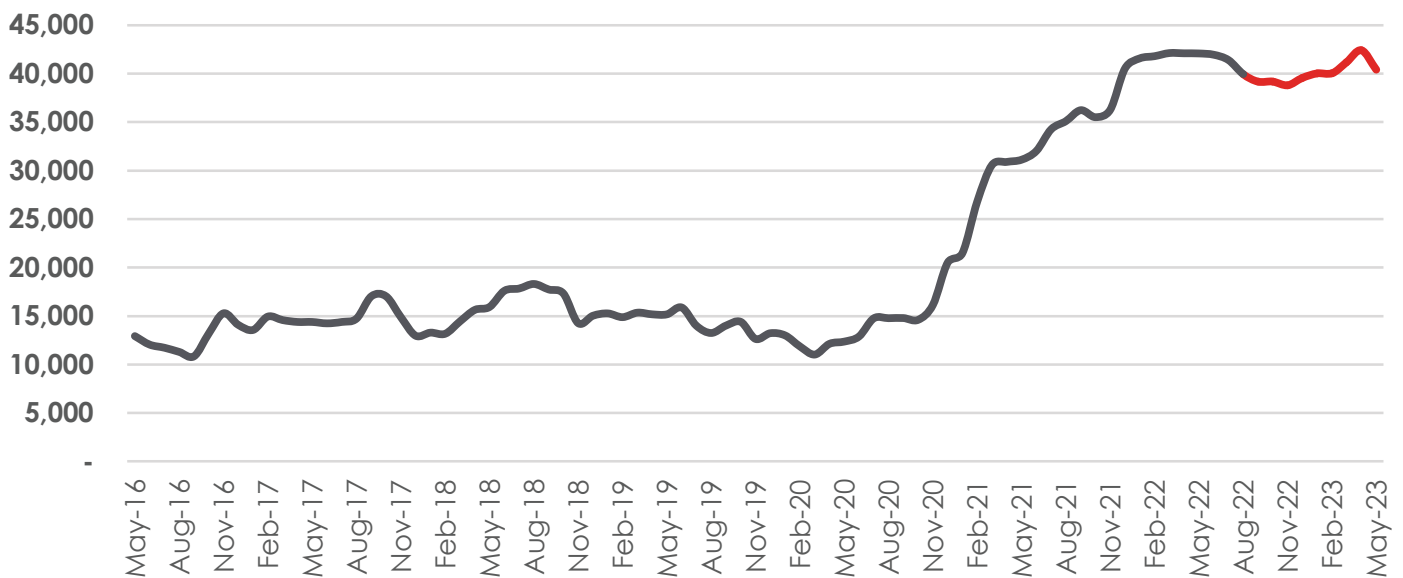
Soybean hit an all-time in March 2022 to close the month at an average price of NGN421,284/mt. This was on the back of low supply of the commodity at that period. We have observed a moderation in the price of the commodity since then induced by low demand for the commodity as the big buyers did not play in the market due to large inventory. Season-to-date

performance of the commodity stood at 1.3% at the end of the 2021/22 trading season.

We forecast the price of soybean to average between NGN386,000/mt and NGN392,000/mt at the end of Q4 in 2022. This represents a higher base than the average price of N375,000/mt recorded in the corresponding period of 2021,

which equates to an increase of about 4% y/y. This is despite the soybean production outlook projected to increase by 7%. We believe a robust demand for soybeans would drive the prices in the new season to some N400,000–N424,000/mt levels by May 2023. This translates to a possible 6% rise during the period in view.

Soybean Monthly Average Price (NGN/Kg)



Source: AFEX Estimation



PADDY RICE PRICE OUTLOOK

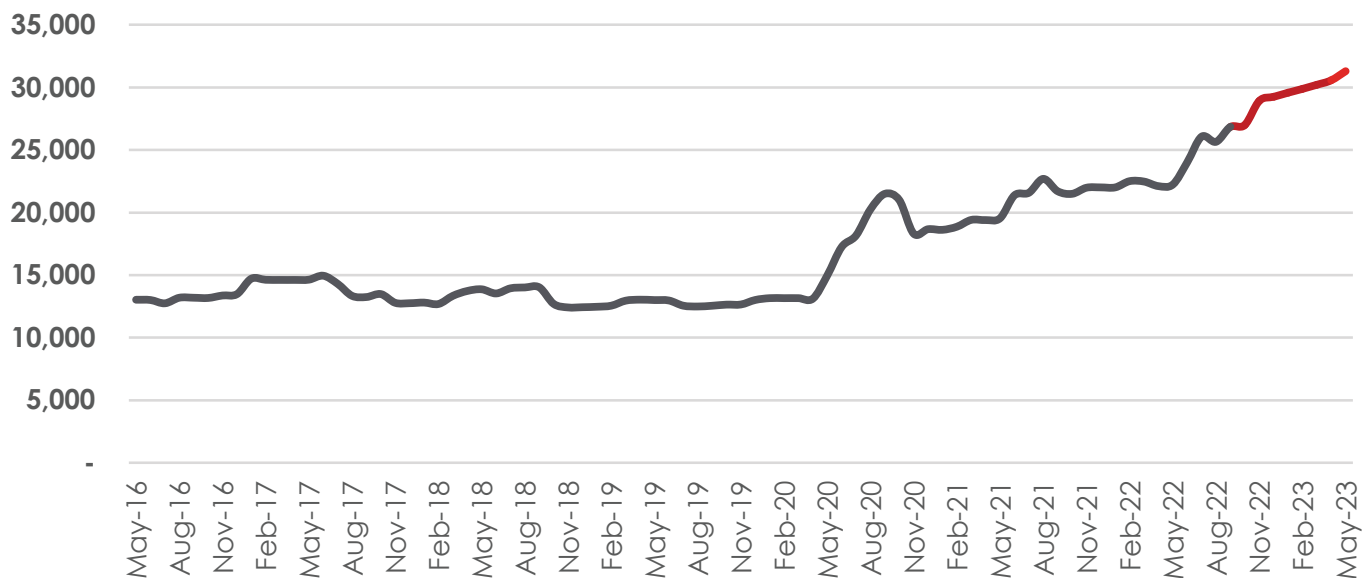
Paddy rice started peaking in June 2022 attributable to the scarcity of the commodity during that period and increase demand both domestically and across border. We saw the impact of early flooding events in rice producing states which caused price to reach an all-year high in October 2022 to close at NGN270,000/mt. On the Exchange, paddy rice recorded

a season-to-date increase in price by 25.6%. Investors in paddy rice contract saw value increase by 13.04%.

With production expected to fall by at least 21%, we estimate the price of paddy to surge by at least 16%, starting at a higher base price of around NGN270,000 at the beginning of Q4. By the end

of Q4 2022, price is expected to average between NGN285,000 and NGN290,000/mt. By Q2 2023, we forecast that the price of paddy should settle between NGN300,000-NGN312,000/mt, representing a 29% rise y/y.

Paddy Rice Monthly Average Price (NGN/Kg)



Source: AFEX Estimation



SORGHUM PRICE OUTLOOK

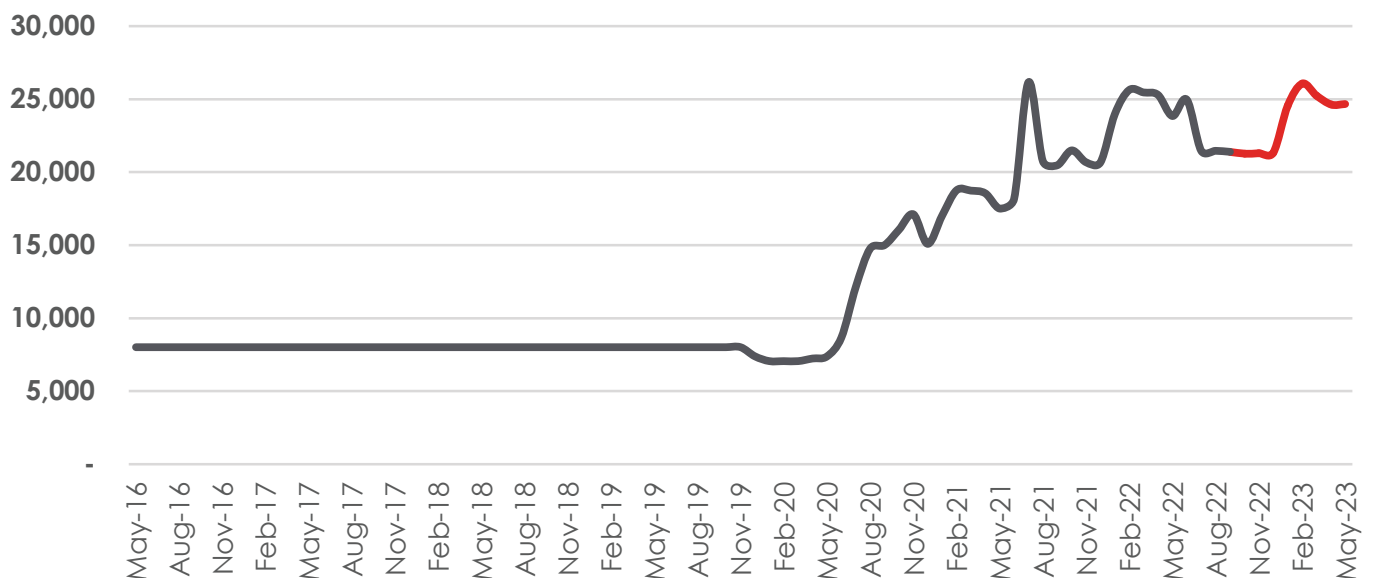
Sorghum peaked in February 2022, reaching its all year high at NGN256,166/mt. This was on the back of high demand for the commodity at the period. Price has however declined from that period, reaching its lowest price at NGN212,610/mt. This has been induced by the low demand for the commodity as players off took inventory during peak periods. Sorghum has recorded a

season-to-date performance of 32% on the Exchange signifying for investors returns that beat inflationary pressure.

We forecast a 7% decline in price at harvest, to values between NGN208,000 and N212,000/mt. By the end of Q2 2023, we predict sorghum prices to rise due to demand rotation into sorghum after maize supply may have

been depleted and low maize supply expectations as production is expected to fall by 7%. The average price is expected to rise to between NGN240,000 and NGN255,000 by the end of Q1 2023. By May/June 2023, the average price of sorghum is predicted to be between NGN240,000 and NGN246,000, a 1.5% decrease from the same period last year.

Sorghum Monthly Average Price (NGN/Kg)



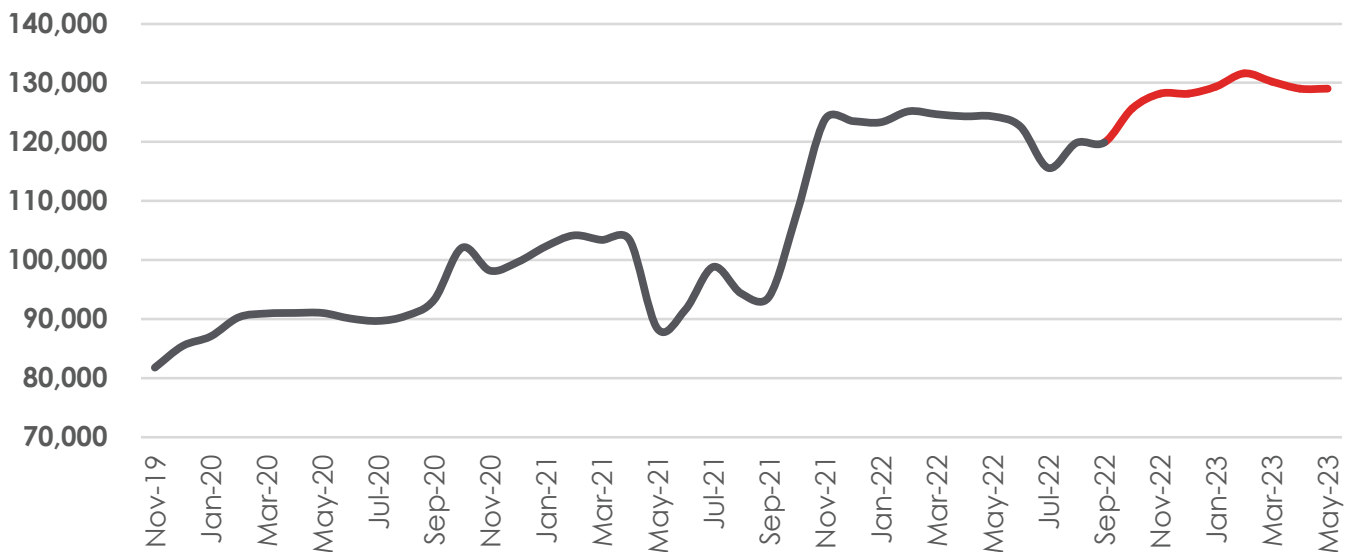
Source: AFEX Estimation



COCOA PRICE OUTLOOK

We forecast average price of cocoa to be around NGN1,260,000 – NGN1,280,000 by the end of Q4 2022. The price is forecasted to be on the average of NGN1,280,000 and NGN1,300,000 by the end of Q2 2023 translating to about 4% increase compared to same period in 2022.

Sorghum Monthly Average Price (NGN/Kg)



Source: AFEX Estimation



Factors That Will Affect Commodity Prices in the New Season



REDUCED PRODUCTION

From our analysis, we are largely bearish on output this year especially for most grain commodities. The 2022 wet season harvest will see the biggest dip in production levels across key commodities unlike we have seen in the last 3-5 seasons. We believe this will have

a significant upward impact on prices in the new season amid growing demand levels. With food and grain processors also aggressively increasing capacities, we believe food balances across grains will further shrink with supply levels underperforming demand

levels. To this end, commodities like maize, paddy and sorghum are likely to experience significant rallies in prices, outpacing increases recorded in prior seasons and corresponding periods.

INTERNATIONAL DEMAND

The surge in international demand for certain commodities such as soybean is competing with the availability of these commodities in the domestic market. This is worrisome because of the decline

in production level across major grain commodities thereby further reducing the supply level in the domestic market. Given the depreciated naira, the increase in global demand for commodities

will drive up their prices, encouraging farmers to supply the market. Consequently, it is anticipated that the price of commodities like soybean will increase because of the rising international demand.

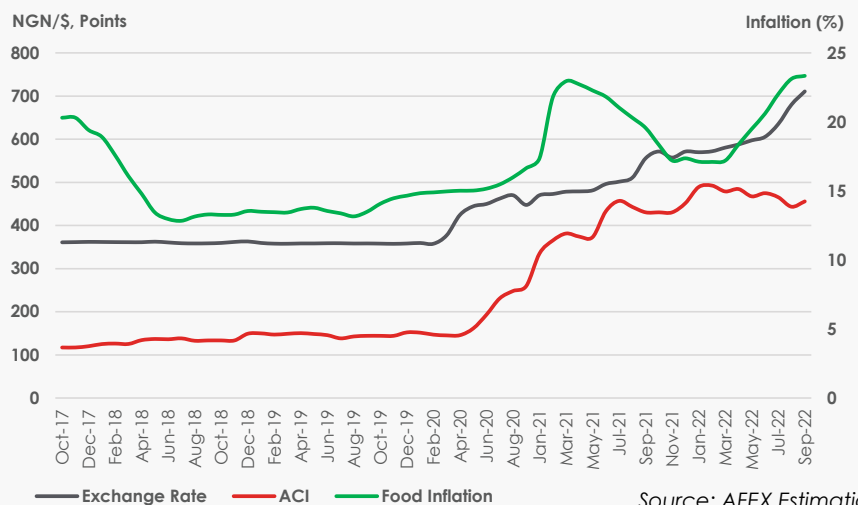
WEAKENING OF NAIRA

Historically, commodity prices have proven to register a strong positive correlation with Nigeria exchange rate movement. Our analysis shows that there exists a 0.9 correlation between the AFEX Commodities Index and Naira/USD FX movement. Since Feb 2020 till date, naira has weakened by 57%. During the same period, prices of grains have rallied by 210%. AFEX analysis reveals a uni-directional causality between the Exchange rate and ACI and also ACI and food inflation. The analysis reveals that there is a 95% confidence level that the lagged value of the exchange rate is causing ACI to move. Furthermore, lagged value of ACI is causing the movement in food inflation at a 99% level of confidence.

for the redesign of naira notes and difficulty to access the official window, domestic prices of commodities in the new season are posed to register new highs

as the weakening of the naira as began motivating export activities by traders which will further crunch supply levels for domestic processors.

Movement Average Exchange Rate Movement and Effect on Food Prices

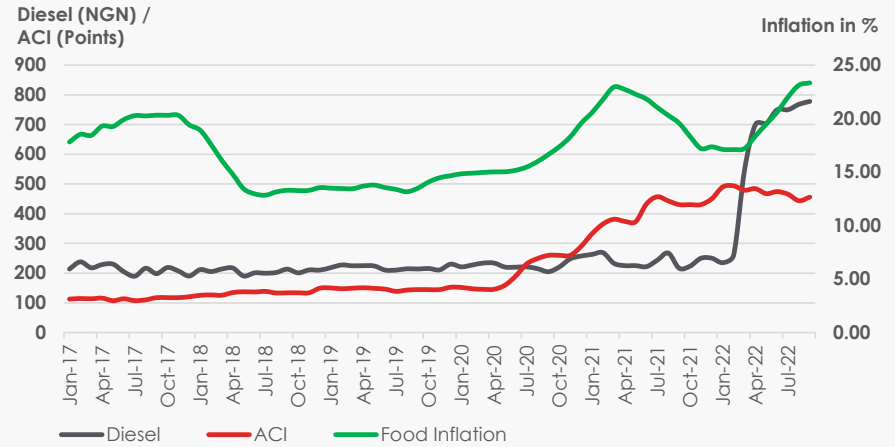


ENERGY PRICE

We believe the brunt on household in the coming season will intensify on the back of the impact of rising diesel prices on logistics. While we saw food prices year-on-year have been lowering at farm gate level during the cause of the just concluded season, transportation cost has impeded its translation to the market. In the last 4 months, we have seen a strong transmission effect from rising transportation cost on table price of food for households. Transportation cost increased by about 200%, on the back of 231% increase in diesel prices ytd, on table prices.

We have seen a strong positive correlation between diesel price movement and Nigeria's food inflation at 0.84, causing consumer food prices to revert a 13-month downward trend. With energy prices expected to rise more than 50 percent in 2022 before possibly easing in 2023 and 2024, largely dependent on event turnout from

Food Inflation, Diesel Price and ACI



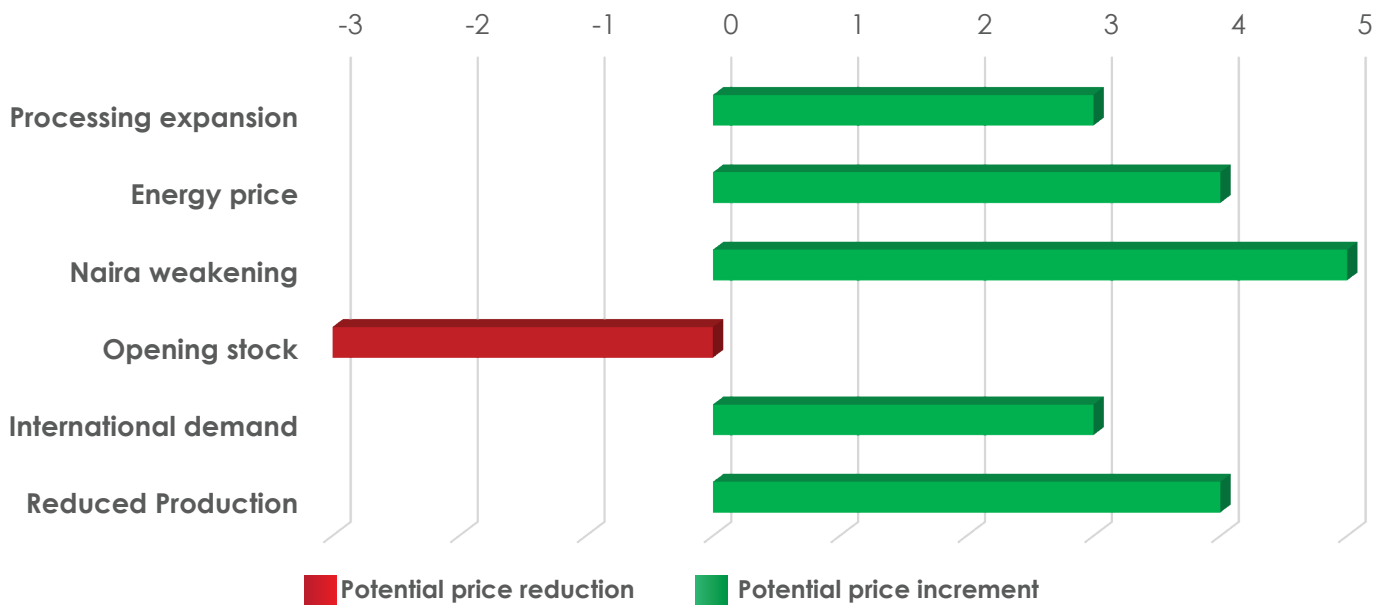
Source: AFEX Estimation

the Russia and Ukraine war, we expect a bullish trend on commodity prices.

AFEX analysis reveals a uni-directional causality between the diesel price and ACI. We also saw a unidirectional causality between diesel price and food inflation. The analysis reveals that there is 0.95

probability that the lagged value of the energy price causes movement in food inflation. Furthermore, lagged value of ACI is causing the movement in energy prices at a 99% level of confidence.

Factors and Possible Effects on Commodities Prices in the New Season



Source: AFEX Estimation



Navigating Through the Floods



The present flood in Nigeria has been described as the worst in a decade. The flood has caused the death of more than 300 people, many injured and over 500,000 affected according to reports. It has affected 29 of 36 states with key agricultural states such as Benue, Niger, Jigawa, Adamawa, Kebbi, Kano, Kaduna, and Taraba all affected.

The effect so far...

Over 108,000 hectares of farmland has been destroyed in the country with an estimation that the disaster's damage now exceeds N40 billion. Rice, maize, sorghum, millet, beans, peanuts, cassava, potato, and bean fields, as well as hundreds of cattle, were destroyed by the flood. Immediate efforts are needed to alleviate the disaster's consequences to reduce hunger and improve food security. Furthermore, when crops are heavily flooded, fungi grow more prevalent. Hence, crops are affected by fungal diseases.

Rice farms, the worst hit

Flooding is currently causing havoc on rice farms in producing areas, threatening harvest during this year's wet season. Thousands of hectares of rice farms have

apparently been washed away in Taraba, Jigawa, Kano, Benue, Niger, Kogi, and Kebbi, among other key producing states in the North.

The AFEX forecast for rice output in the wet season of 2022 is a 21% decline. 12% of the drop is due to farmers' low fertilizer consumption caused by the Russia-Ukraine war, as well as farmers' anticipatory response to floods, which causes farmers not to plant rice during the wet season, while the remaining 9% is the percentage decline linked directly to flood impact.

Short-run fix

In the next months, when the impact of low production and the flood start to materialize, commodity prices are expected to soar. However, given that the existing unfavorable food balance of important commodities is growing broader, steps must be made to mitigate this detrimental effect in the short term. To temper food inflation, this potential gap in the food balance sheet, particularly in rice balance, needs to be closed out in the short run. This can be if there is shift in focus to dry season planting and harvest for paddy rice.

This can be best achieved with a

combination of Input subsidy and forward contract.

Input subsidy: Some sort of input subsidy is needed, and the government can leverage on Exchanges like AFEX to facilitate successful implementation and execution of the program while assuring higher repayment rate. This will assist to boost productivity since farmers will be able to cultivate more hectares and address the issue of limited availability of inputs, particularly fertilizer, which is critical for dry-season farming.

Forward contract: This is a flexible agreement between two parties to buy or sell an item at a predetermined price on a future date. During harvest, government and private groups can enter into unrestricted agreements with farmers for their output at a specific price. This provides incentives to farmers to increase acreage for greater income due to the contractors' promise of a base price and can really optimize it to sell at a higher price to an external party. If sold to government or private entities, profits can be made by reselling at a higher price. This stimulates productivity while also reducing the amount of money in circulation.



Positioning Nigeria Against Potential Global Shocks and Headwinds

With a population of nearly 217 million people (about 15% of Africa's population), Nigeria is the most populous country and the largest economy in Africa. However, like most countries in Africa, Nigeria has high poverty rates, with 42.6% of people living below the poverty line, an unemployment rate of 33%, and twin challenges of food insecurity and acute malnutrition as Nigeria is one of the 10 countries with the highest number of people in food crisis, according to the 2022 Global report on food crises

The current rise in global market prices for major food commodities almost mirrors that of the 2008 food crisis, presenting a worldwide threat to food security. The situation is particularly severe in Africa, where the COVID-19 pandemic and now the Russia-Ukraine crisis have exposed the vulnerability of food systems to major shocks, particularly in countries like Nigeria that rely heavily on imports of some staple foods such as wheat. As evidenced by the sharp increase in food prices, Nigeria is particularly susceptible to global shocks. The COVID-19 pandemic and lockdown in 2020 disrupted the food supply chain, drove up food

prices, depleted strategic food reserves, reduced agribusiness export revenues, lowered farmer incomes, and eventually threatened food security. The situation was made worse by the Russian invasion of Ukraine and the Western economic sanctions against Russia. The war has caused food prices to reach 14-year highs, oil prices to surge towards 2008 highs, and fertilizer prices to increase by more than 150% because Ukraine and Russia are important global producers of agricultural goods, especially wheat, fertilizers, and energy. Rising food prices place further strains on Nigeria's poor population, which is already dealing with stagnant income and a worsening standard of living.

Nigeria must develop resilience to lessen the impact of global shocks given the uncertainties around the global shocks that might occur in 2023 and years beyond. To do this, the government must increase budgetary support for agribusiness at the national and sub-national levels to the minimum requirement of 10% set during the Maputo Declaration on Agriculture and Food Security, increase investment in Research & Development aimed at increasing

yields, investment in infrastructural capacity such as transportation, storage, power, and so on, and increase and extend the capacity of current food reserves.

To mitigate the effects of a global shock on commodity production and prices, we will require a dual strategy. While government attempts to boost output levels are being stepped up, building reserves across other key staples is expedient. Moreover, there must be a synchronized effort between the government and the private sector to boost Nigeria's food systems. AFEX remains committed to fixing identified challenges across the commodity value chain. Our input financing programme has helped several farmers improve yield while delivering adequate return to them. We have also fostered access to market through ComX which facilitates trading activities between farmers and buyers with over 64,000 users, storage facilities to farmers and improvement to food quality through the newly launched 100,000MT Grain Quality Enhancement Center.



Navigating the Murky Terrain

COMMODITIES AS A HEDGE AGAINST INFLATION

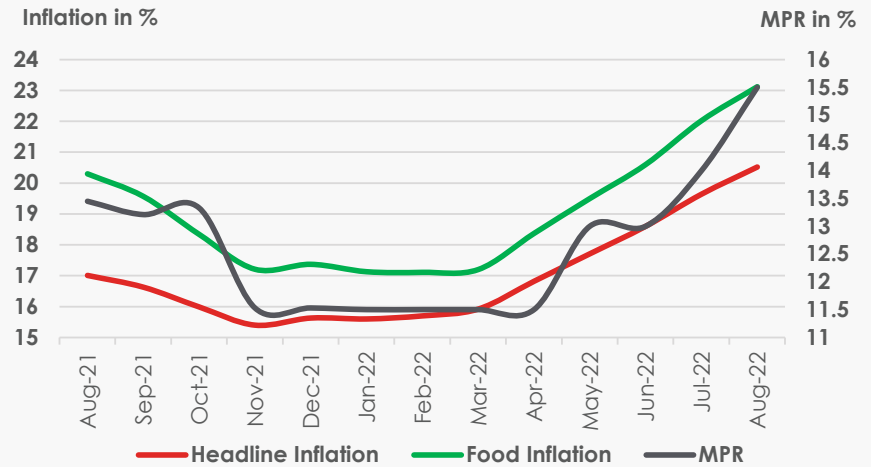
The turn of events in the last 3 years have brought to the forefront of national discourse and strategy the need to battle inflation while ameliorating its effects on national currency valuations, households/ investors wealth and effect on GDP outlook across economies. If there is one word that has caught everyone's attention in 2022, it is inflation with central banks around the world, Nigeria not spared, facing a difficult balancing act, needing to raise interest rates aggressively to bring down inflation without triggering a recession.

Between April and September 2022, Nigeria has raised MPR by 450 basis points with little impact on Nigeria's headline and food inflation. The latter has increased by 282 basis points and 365 basis points respectively during the same period.

The latest NBS report shows that Nigeria's inflation rate surged to 20.77% year-on-year in September 2022, the highest since September 2005 and more than double the 9% ceiling of the central bank's target band. Although a decelerating rate month-on-month, it still paints the dire situation an average Nigerian is in amid a slow-paced economy and rising unemployment status.

Food prices have continued to remain a key driver of Nigeria's headline inflation, and average commodity prices are now at a four-time high, compared with the prices five years ago. Also, in the last 4 months, we have seen a strong transmission effect from rising transportation cost on table price of food for households. With energy prices expected to rise more than 50 percent in 2022 before easing in 2023 and 2024, largely dependent on event turnout from the Russia and Ukraine

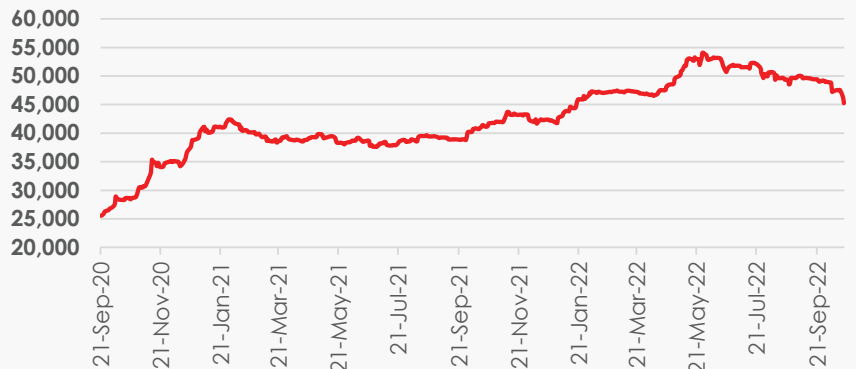
MPR vs Inflation in %



Source: NBS, AFEX Research

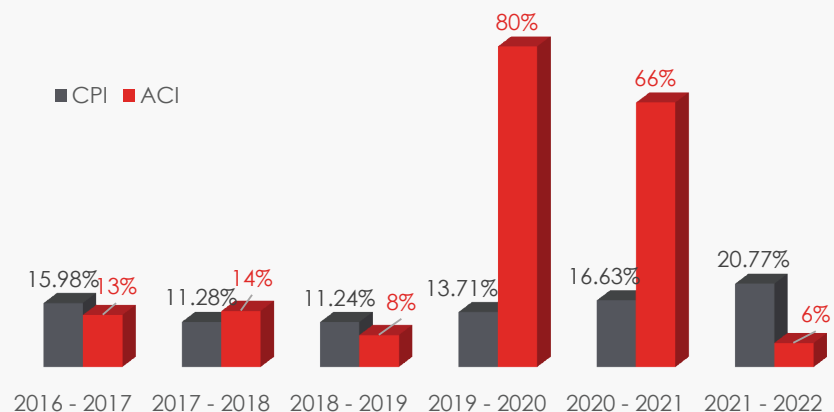
Nigeria All Share Index Trend

Index Points



Source: NGX

ACI vs CPI Performance



Source: NBS, AFEX Research

war, we expect continuous impact on commodities prices going forward, hence, stoking inflationary pressure.

On the back of a bleak outlook for production this year and supply disruptions induced rise in energy prices, we anticipate higher pressures on commodities prices. This will have implications on Nigeria inflation numbers, hence more worries for the central bank and further cementing future hawkish stance to battle inflation.

This is not without implication on the Nigerian capital market. We believe investors will continue to grapple with negative returns in the equity and fixed income

spaces. The Nigerian equities market is likely to sustain a bearish run on the back of interest rate hike and caution against the coming elections in 2023. Already, the Nigerian equities market reversed gains recorded in H1 2022, recording a 5% ytd performance. Since June 2022, the market has bled by 15%.

As we move into 2022, inflation risk remains a concern with the possibility of investment posting negative returns due to underperformance when compared to inflation. This risk has consistently thrown investments in the traditional asset class into negative over the past few years in Nigeria and is poised to influence their

performance moving forward. On the brighter side, the commodities market offers considerable support in protecting investment portfolios against the corrosive effects of inflation in Nigeria. Correlation analysis shows that commodities are poised to be a strong hedge against inflation.

In addition, the returns posted by the commodities market show a considerable differential versus inflation and outperform other asset classes in protecting investment portfolios against it. In the last six years, the average annual return of the AFEX Commodities Index has outperformed domestic inflation by 31%.

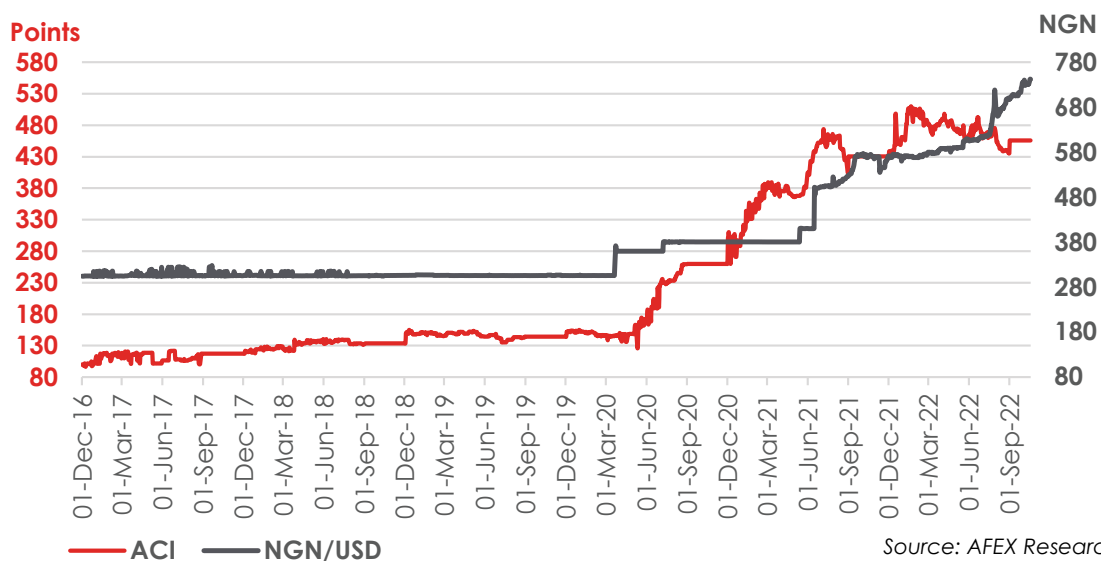
COMMODITIES – A HAVEN TO CURRENCY DEVALUATION

Over the past 6 years, exchange rate risk has remained a core concern for investors in the country as they seek to maintain the value of investments and prevent erosion of the invested capital. Interestingly, the commodities market has consistently provided this protection as returns posted in the commodities market have outperformed

the depreciation witnessed in the Naira. Looking at the last six years of available data, the commodities market as returned an average of 356% to investors as against the naira weakening by 59% over the same period. This differential is backed by the strong correlation in the movement of the NGN-USD exchange rate and

the commodities market performance (as captured by the AFEX Commodities Index). We believe that investors can protect their investments against exchange rate depreciation leveraging on commodities instruments as we have it on AFEX Commodities Exchange.

ACI vs NGN/USD





OVERCOMING SUPPLY CHAIN RISKS

As processors operating in the agriculture sector must have witnessed over the last two years, the assurance of volumes and the hedging against supply risks is as paramount as having a factory to operate. Based on industry observations, a significant number of processors have either shut down or exited the processing business completely owing to their

inability to source the needed raw materials to carry out their operations. In mitigating this risk, AFEX Commodities Exchange offers two critical products in the form of forward contracts and commodity contracts designed to ensure the delivery of commodities to companies/processors that require these raw materials. These contracts help the processors to

hedge the risks of not getting the commodities they require in the right quantity and quality.



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ABUJA: **3rd & 7th Floor, Yobe Investment House, Central Business District**
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