



The Food Price Monitor: Kenya is a monthly report developed for the Food Security Portal (FSP), facilitated by IFPRI, with the goal of providing clear and accurate information on commodity price trends and variations in selected markets throughout Kenya. The reports are intended as a resource for those interested in agricultural commodity markets in Kenya, namely producers, traders, consumers, or other agricultural stakeholders.

Highlights

- ▶ In Kenya, key staples include maize, beans, rice, wheat products, and Irish potatoes. The major producing regions are in the central highlands and the central and the north Rift Valley Counties.
- ▶ Kenya's major consumption areas are found in urban centers, especially Nairobi, Mombasa, and Kisumu, all of which are characterized by higher urban populations.
- ▶ While the covered food commodities are produced locally, national demand outstrips local production, meaning that significant volumes are imported. This is particularly true for rice and wheat (or wheat products). Wheat is imported from international markets (the U.S., Canada, and Egypt), while rice is imported from Asian countries (Vietnam, Pakistan, and India). Except in the case of abnormal shortages, maize and beans are imported from other east African countries, especially Uganda and Tanzania. Kenya rarely imports Irish potatoes.
- ▶ During the month under review, prices for the targeted key commodities remained stable, with only slight decreases in weeks three and four.
- ▶ As expected, average wholesale prices were lower compared to retail prices, with the highest margins ranging from 15 to 50%.
- ▶ Overall, none of the markets selected had consistently high or low prices for all products, but prices of certain products were lower in a certain region compared to others.

Introduction

The Food Security Portal (FSP), facilitated by the International Food Policy Research Institute (IFPRI), aims to improve food security for the world's poor and increase the resilience of global food systems against food and financial crisis. The project brings together international, regional, and country-level data, news, and research aimed at meeting countries' immediate food security needs and building long-term global food security. The FSP is designed to pool information in structured ways to ensure high-quality, timely, and relevant data and to provide the opportunity for collaboration among policymakers, development professionals, and researchers.

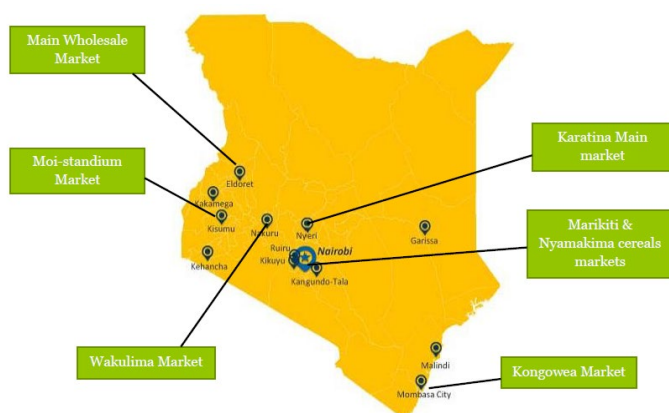
Expected Output

This report is part of the FSP's efforts to monitor country-level food prices in order to improve the governments' ability to respond to and prevent food crises. It presents price trends and movements for key food commodities, including dry beans, dry maize, rice, wheat, and Irish potatoes, for June 2021 in selected major regions and markets in Kenya.

Findings

Findings are reported as average weekly and monthly wholesale and retail prices (KES/kg¹) for the five food commodities across the six regions, including the combined² national averages, per variety (where applicable) and per region. The report also describes the weekly changes in prices along and across the regions (price trends) within the month. Further, the sources of these key food commodities, their availability, and traders' adaptations to the effects of COVID 19 pandemic are discussed.

Figure 1: Map of study regions/markets



General Situation Overview in Selected Regions

In June, traders in the Nairobi region sourced their produce from across the country and from neighbouring countries, especially Tanzania and Uganda. Some varieties of rice were also imported from Asia (India, Pakistan, and Vietnam)³. Within the country, beans were sourced from the Busia, Namanga⁴, Narok, and Taveta regions; maize came from Trans-Nzoia, Narok, Meru, and Namanga; wheat was sourced from Narok, Trans-Nzoia, and Taitaveta⁵; and rice came mainly from Mwea⁶ and Mombasa, with some imports from Moshi in Tanzania. The availability and supply of food commodities in the Nairobi region were

stable in June, but prices varied depending on the source and the associated transport cost.

Traders in the Eldoret region obtained food commodities mainly from neighboring farms. Eldoret Town is located within Uasin Gishu County in the North Rift region and surrounded by Trans-Nzoia, Nandi, and Elgeyo Marakwet Counties; this region is regarded as Kenya's food basket, particularly in terms of maize, wheat, and Irish potatoes. Traders also sourced supplies from other counties to substitute low supply or when products were out of season. During the month of June, beans were sourced from Busia and Meru, as well as through Malaba (the border town with Uganda). Rice was imported from Mwea, Tanzania and from Pakistan. Traders sourced maize mainly from neighboring farms. During the months of May and June when maize is not in season and regional supply is typically low, traders obtain maize from Uganda through the Malaba border. During this period, maize prices are often at their highest. Irish potatoes were sourced from neighboring farms and from Elgeyo Marakwet County⁷. The price of potatoes is affected by availability, seasonality, and weather; during the rainy season, potatoes are plentiful, but transport costs are high, which leads to increased prices. During the dry season, on the other hand, there is generally a shortage of potatoes, with demand outweighing supply. Wheat was sourced from regional farms and from Narok County, located in the South Rift. Dry wheat is not a commonly traded product in the region since it is mainly available for only one season in a year (mostly from September).

Traders in Mombasa obtained maize from Trans-Nzoia, and Uasin Gishu Counties, as well as from imports from Uganda and Tanzania. Rice was sourced from Tanzania (through border towns at Kwale, Taitaveta, Namanga, and Migori/Kuria), Tana Delta, Msambweni in the Coast region, the Mwea irrigation scheme in the Central region, and Nyanza region (Ahero, West Kano, Bunyala)⁸. Beans were sourced from the Rift Valley region (especially Nakuru County), as well as Machakos Tharaka Nithi and Meru Counties, the major bean-producing counties in Kenya. Beans were also imported from Tanzania. Wheat was sourced from Narok, Nanyuki, Meru (Timau), Uasin Gishu, and Trans-Nzoia Counties, whereas Irish potatoes

1 Average exchange rate June 2021, USD to Kenya Shillings: 1 USD=107.95 KES

2 Prices from the six regions combined; Mombasa, Nairobi, Nakuru, Eldoret, Kisumu, and Nyeri

3 NB: More than 70% of rice consumed in Kenya is imported

4 NB: Namanga is the border town between Kenya and Tanzania; thus likely to be imports from Tanzania

5 NB: Unlike Trans-Nzoia and Narok that are known to grow wheat, Taitaveta doesn't grow wheat; and thus likely to be imports from neighbouring Tanzania. Taveta is also a border town with Tanzania to the South East.

6 Mwea irrigation scheme is Kenya's largest irrigation scheme where Basmati rice (Pishori) is the main crop.

7 NB: Elgeyo Marakwet is the third largest producer of Irish potatoes nationally, ranked only after Nyandarua and Nakuru Counties.

8 These areas also comprise irrigation schemes namely Ahero, West Kano, Bunyala and lower Nzoia where paddy rice is grown). Rice is also grown in the Tana Delta Irrigation scheme in the Coast region.

were sourced from Taita Taveta, Nakuru, Kiambu, and Nyandarua.

In Nakuru, traders sourced directly from local farmers and from neighboring counties. Irish potatoes were sourced from Nakuru (Mau-Narok, Kuresoi, and Molo sub-counties) and Nyandarua County. Dry maize and beans were sourced from local farmers and from neighboring counties of Baringo, Uasin Gishu, Elgeyo Marakwet, Nandi and Trans-Nzoia, as well as from Uganda during the off-season. Wheat was obtained from Nakuru and Narok Counties, and rice was obtained from Mwea (Kirinyaga County) and imported from Tanzania.

Overall Wholesale and Retail Prices by Region

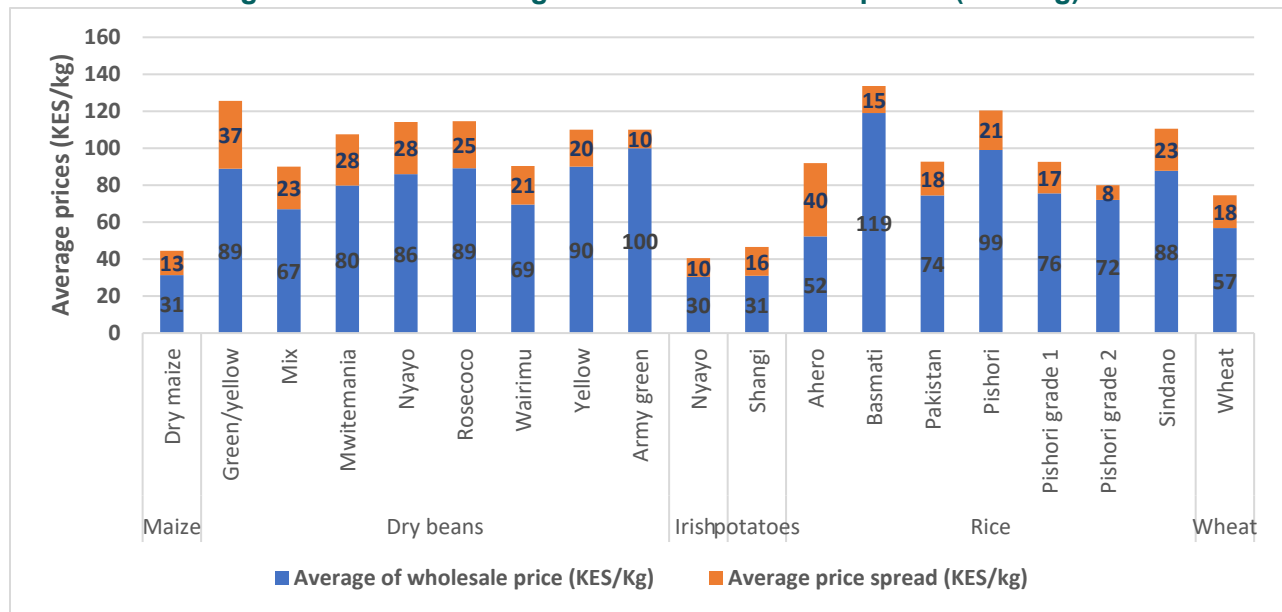
As expected, average retail prices were higher than wholesale prices across the six selected regions for all commodities. Ahero rice and Irish potatoes saw a higher margin (more than 50%), while pishori grade 2 rice had a lower margin (less than 15%), as shown in Figure 2. Higher price margins are attributable to the source of produce, re-packaging, seasonality, and the existence of middlemen and brokers who tend to have the market power. The higher price margin of Irish potatoes can be attributed to government regulations,⁹ which were enforced in June 2021. These regulations aimed to guide the promotion, development, and regulation of the production and trade of Irish

potatoes. The new regulations demand that potatoes be packaged in approved material that allows for air flow and that packaged potatoes do not exceed 50kg; middlemen may have been able to take advantage of these regulations, thus increasing prices for retailers.

Ahero rice was common in Kisumu region, where the commodity is produced, and less common in Mombasa, a deficit area. Higher price margins for this commodity can be attributed to marketing challenges experienced by farmers after harvest. Middlemen took advantage of the bumper harvest and the lack of markets to offer low prices during the harvest season and then to sell the commodity later to other regions and middlemen at higher prices. The Covid-19 pandemic also disrupted the sale of rice; the majority of learning institutions and hotels in the selected regions remained closed in June, and therefore producers lacked a ready market in which to sell milled rice.

Pishori grade 2 rice had a lower margin, which can be attributed to its quality. Grade 2 rice is normally cheap due to its substandard quality; it contains a higher percentage of broken rice, foreign matter like small stones or small soil particles, and a mixture of other brands of rice. In Kenya, consumers are specific about the grade of rice they consume/purchase and are willing to pay premium prices for better quality (clean with a limited proportion of broken grains).

Figure 2: Overall average wholesale and retail prices (KES/Kg)



Source: Daily Market Survey for the month of June

9 Persons or entities handling Irish potatoes, including processors, marketing agents, dealers, collection centers, and warehouse or stores, were mandated to register with the county government in which they operate from and to obtain a certificate of registration. The gazette notice also

states that the selling and buying of Irish potatoes for home consumption may be done through a collection center, medium, or designated market. The regulations shall apply with respect to Irish potatoes produced and marketed in Kenya and imported or exported into and out of Kenya. (The Kenya Gazette Notice No. 3072 (2021))

Wholesale and Retail Commodity Prices

Green/yellow beans recorded higher wholesale and retail prices in the Eldoret region compared to other regions, as shown in Table 2-1. This could be attributed to seasonality, given that local beans were in the vegetative to reproductive stage during the month of June and likely to be harvested between July and August. Thus, the beans available during the month of June were mainly imported from Uganda. Compared to the government recommended prices set by the Ministry of Agriculture Livestock and Fisheries (MoALF) during the COVID-19 pandemic (93KES/kg)¹⁰, retail prices for Rosecoco beans were higher across the regions, with the exception of Nakuru County. This again can be attributed to seasonality, as most bean-producing areas peak during the months of July, August, and September.

Dry maize recorded a higher wholesale price (50KES/kg) in Nairobi and Mombasa than in other markets. The wholesale price was higher than the overall average price (45 KES/kg) in all the regions. Despite regional variations, maize prices were within the government's recommended price for the COVID-19 period (50KES/kg).

Basmati rice (aromatic varieties) recorded higher wholesale and retail prices across all regions compared to other rice varieties. However, both wholesale and retail prices across all regions were within the government recommended prices KES/kg for basmati (aromatic rice) and 100KES/kg for non-basmati (non-aromatic) rice.

Wholesale and retail prices of wheat were higher in Eldoret than in other regions, which is attributable to seasonality. Wheat is harvested in the Eldoret region in September and is not commonly traded in the market during the month of June. Notably, wholesale and retail prices for wheat were higher across all the selected regions than the government recommended price of 36KES/kg. This can be attributed to reduced local production, driven by changing weather patterns and increased cost of inputs such as fertilizers and fuel.

There was a larger market margin between wholesale and retail prices of Irish potatoes (shangi variety) accrued by middlemen and brokers across the regions. It was also notable that retail prices in Kisumu and Mombasa were generally higher than the government recommended price of

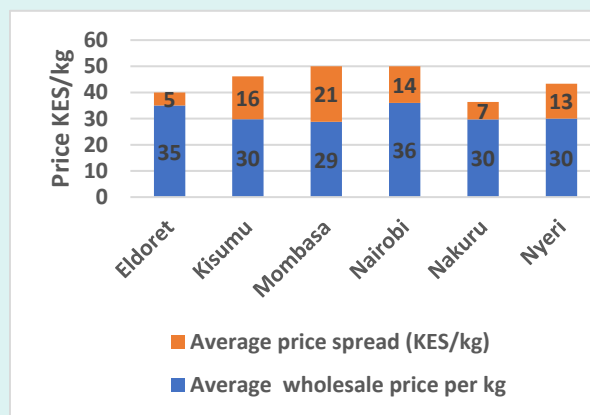
50KES/kg. Mombasa and Kisumu cities (which are the second and the third largest cities in Kenya, after Nairobi) have high populations but are located within relatively low-potential agricultural production regions.

FOCUS ON MAIZE PRICES ACROSS SELECTED REGIONS

Maize is the primary staple food for most Kenyans, with its availability considered synonymous with national food security. It is produced mainly by small-scale producers, although it is grown on = both small and large farms. While there are many maize varieties available, the choice of varieties for a given location is dependent on agro-ecological zones, climatic conditions, soil type, yield potential, tolerance/resistance to pests and diseases, and maturity period, amongst other considerations. Maize is adaptable to a wide range of climatic conditions and is thus grown extensively throughout the country. It is produced in large scale in the Rift Valley region, particularly Trans-Nzoia, Nakuru, and Uasin Gishu Counties. In major growing areas of the Central, Rift Valley, and Western provinces, maize is planted during the long rain/main season in March and April and harvested from September to November. For short season varieties, maize matures after 3-4 months compared to 6-8 months for the long maturity seasons.

During the month of June, retail prices for maize were higher (above 45KES/kg, the overall price for the selected regions) in Kisumu, Mombasa, and Nairobi. This can be explained by the fact that the three are the largest cities in the country, where maize (and maize flour) are in high demand. Prices were lower in Eldoret, Nakuru, and Nyeri. These regions comprise the key maize-producing areas and thus had higher supplies.

Average wholesale and Retail price (KES/Kg) of Maize in Selected Regions



Source: Daily Market Survey for the month of June

10 **This was a single recommended price. Most government interventions aimed at cushioning citizens against the effects of COVID-19 were

reversed after March 2021. However, it is not yet clear whether the price policy had been reversed as of June.

Table 1: Average wholesale and retail prices (kes/kg) per region for June

Product	Variety	Average of w/sale price per kg						Average of retail price per kg					
		Eldoret	Kisumu	Mombasa	Nairobi	Nakuru	Nyeri	Eldoret	Kisumu	Mombasa	Nairobi	Nakuru	Nyeri
Dry beans	Green/yellow	113	95	78	83	80	76	133	133	100	120	80	80
	Mix						67						90
	Mwitmania		80	71	89	76	83		113	109	120	70	120
	Nyayo	90	77		84			108	115		120		
	Rosecoco	100	91	78	89	75	100	125	113	100	120	80	150
	Wairimu				67	58	83				90	60	120
	Yellow	90						110					
	Army green					100						110	
Dry maize	Maize	35	30	29	36	30	30	40	46	50	50	36	43
Irish potatoes	Nyayo		32	30			24		41	40			50
	Shangi	26	40	43	20	23	24	30	50	58	33	40	35
Rice	Ahero		62	50					100	90			
	Basmati	125			118	112	120	150			130	130	120
	Pakistan		65	76					110	90			
	Pishori	110	96	70	140		120	125	120	85	160		150
	Pishori grade 1		70			76			125			90	
	Pishori grade 2					72						80	
	Sindano		79	80	86	100	100		107	100	100	120	120
Wheat	Wheat	90	56	50	47	44	47	105	77	70	70	55	63

Source: Analyzed data from daily market survey for the month of June

Wholesale and Retail Price Trends by Region

Comparisons across the weeks for the month of June showed that there was no significant change in the wholesale prices of food commodities in Eldoret region. However, compared to week 1, there was a reduction in wholesale prices for green/yellow beans of 17% and 8% in week 3 and week 4, respectively. Retail prices for green/yellow and Nyayo beans saw a reduction in weeks 3 and 4 compared to week 1.

In Kisumu, comparison between the last week and the first week of the month of June showed a general reduction of wholesale prices for all food commodities. However, rice saw an increase in weeks 2 and 3 and again in weeks 4 and 5. Retail prices for green/yellow beans, Rosecoco, Irish potatoes (*Shangi* variety), Pishori rice and *Sindano* rice showed increases, while Mwitmania beans and dry maize saw price reductions.

In Mombasa, comparison between the last week and the first week of June showed stable wholesale prices. However, prices declined by 3% for Mwiternia beans and 7% for dry maize. Price reductions were also observed within weeks 3 and 4 for retail prices.

In Nairobi, a comparison between week 1 and week 5 showed no significant changes in wholesale prices, apart from a decline in the prices of green/yellow beans and Irish potatoes (shangi). A decline in the wholesale price of Irish potatoes was recorded from week 3 to week 5. Retail prices remained stable, with no major changes across the weeks in the month of June.

A 3% decline in wholesale prices between week 5 and week 1 was recorded for both green/yellow beans and Irish potatoes in Nakuru. Dry maize also showed a reduction of wholesale price in week 3 (1%) and week 4 (3%). Irish potatoes (*Shangi*) saw a reduction in wholesale price in week 4 (4%) and week 5 (3%). Whereas retail prices for other food commodities were stable across the weeks, Mwiternia beans recorded a 7% reduction in retail prices between week 1 and week 5.

Wholesale and retail prices were stable in Nyeri with no significant changes between week 1 and week 5. Apart from dry maize, which recorded a reduction in wholesale prices in week 2 (4%) and week 3 (10%), the same scenario was observed across the weeks when prices from the week 2 to week 5 were compared with the prices from week 1.

Adaptations to COVID-19 Pandemic

During the COVID-19 pandemic, traders who normally sold produce by displaying their wares in the markets resorted to the use of online platforms like Facebook, Instagram, WhatsApp, and digital messaging to advertise and sell their food commodities. Both wholesalers and retailers adopted strategies such as home deliveries and calls to regular customers, delivering produce using handcarts, motorcycles, tricycles, cars, or small trucks. One of the major online trading companies for agricultural products (Twiga foods- <https://twiga.com/>) recorded an unprecedented increase in business volumes during the COVID-19 period.

FOCUS ON NAIROBI REGION

Nairobi is the capital and largest city of Kenya. The food consumed in the city comes from across the country and from imports from Tanzania, Uganda, and other regional and international producers. Prices for target crops were collected from Nyamakima and Wakulima (Marikiti) wholesale markets, the largest cereal and fresh produce markets in Nairobi, respectively. Beans were sourced from Busia, Namanga (Kajiado County), Narok, and Taita-Taveta Counties, while maize was sourced from Trans-Nzoia, Narok, Meru, and Kajiado (Namanga border point) Counties. Wheat was sourced from Narok, Trans-Nzoia, and Taita-Taveta¹ Counties, and rice was sourced from Kirinyaga County (Mwea irrigation scheme), Mombasa, and imports from Tanzania. Some varieties of rice were also imported from Asia (India, Pakistan, and Vietnam). Price data for Irish potatoes was collected from Marikiti wholesale market, the region's biggest fresh produce market, which operates between 3-5 am for wholesalers and throughout the day for traders. The market serves a multitude of traders, comprising farmers, wholesalers, brokers, retailers, vendors, handcart pushers, and individual who carry luggage on their backs or shoulders to different bus stops. Irish potatoes were sourced from across the country, particularly Nakuru, Nyandarua, Elgeyo Marakwet, and Narok Counties. Availability and supply of food commodities in Nairobi region was stable in June, but prices varied depending on the source and associated transport costs.

Wholesale and retail prices of various commodities in the Nairobi region, including green/yellow beans, Mwiternia beans, Nyayo beans, Rosecoco beans, Wairimu beans, dry maize, *Sindano* rice, and wheat remained largely stable in the month of June. Irish potatoes recorded a 10% drop in retail prices in week 3 and a 5% drop in week 5 and a 6% and 3% drop in wholesale prices in week 3 and week 5, respectively. While Basmati rice recorded stable average retail prices and Pishori rice showed a constant wholesale price, Pishori rice recorded a drop in average retail prices of 4% in week 2 and week 4 and an increase of 7% in week 5.

Weekly Average Prices for All Commodities in Nairobi Region

Commodity	Average wholesale price per kg					Average retail price per kg				
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 1	Week 2	Week 3	Week 4	Week 5
Green/yellow beans	83	83	83	83	80	120	120	120	120	120
Mwiternia beans	89	89	89	89	89	120	120	120	120	120
Nyayo beans	84	84	84	84	84	120	120	120	120	120
Rosecoco beans	89	89	89	89	89	120	120	120	120	120
Wairimu beans	67	67	67	67	67	90	90	90	90	90
Dry maize	36	36	36	36	36	50	50	50	50	50
Irish potatoes	21	21	19	21	20	34	34	32	34	33
Basmati rice	118	114	114	118	118	130	130	130	130	130
Pishori rice	130	125	128	125	140	140	140	140	140	140
Sindano rice	86	86	86	86	86	100	100	100	100	100
Wheat	47	47	47	47	47	70	70	70	70	70

Source: Daily Market Survey for the month of June.

Outlook for the Month of July

Overall, prices are expected to remain fairly stable through July. However, there may be changes in the prices of maize, beans, and Irish potatoes:

- Maize prices may increase as the major producing areas will not be ready to harvest until around November.
- Prices of Irish potatoes are likely to decrease as some major producing areas in the Rift Valley and Central highlands prepare for harvest during July and August.
- Prices of beans are likely to decrease as some major producing areas in the Central, Eastern, and Rift Valley prepare for harvest during July, August, and September.
- Rice prices are likely to increase as the country relies more on imports. The main production season for rice starts in July and ends in December.

DATA COLLECTION AND METHODOLOGY

The study was conducted in the Mombasa, Nairobi, Nakuru, Eldoret, Kisumu, and Nyeri regions of Kenya (see Figure 1). These regions comprise the key markets in major urban centers. The five selected commodities comprise the major staple foods in Kenya.¹¹

Data assistants, some of whom were traders, collected average daily wholesale and retail prices from the main markets of the selected regions. Data was collected daily for six days (Mondays to Saturdays) from stockists/wholesalers and traders in the morning hours. This timing was preferred over later in the day when commodity quality, and thus the prices received, may be lower. Notably, most markets have both a wholesale component which usually operates very early in the morning, and a retail component, which usually continues throughout the day in order to maximize profit. This data collection methodology concurs with research by Irungu, et. al (2007), who find that suppliers (producer wholesalers and other wholesalers) bring produce early in the morning, while traders buy from them to retail later. Many markets have specific market days on which producers and mobile traders come to sell their goods, while on other days, permanent retailers sell food from built-up shelters. These differences in retailer lead to variation in food commodity prices.

During the last week of the month, the following qualitative data were captured:

- General observations on food price commodities during the month of June, including price variations and the lowest, highest, and prevailing wholesale and retail prices
- The source of food commodities and their availability throughout the month
- The effects of the COVID-19 pandemic, as well as government restrictions including curfews and cessation of movement, on food prices and availability (both supply and demand)
- Traders' adaptation strategies to the COVID-19 pandemic, including sourcing and selling

Additional secondary data was obtained from the Ministry of Agriculture, Kenya Government Food Security War Room (FSWR), Ministry of Agriculture Livestock and Fisheries (MoALF), and Regional Agriculture Trade Intelligence Network (RATIN). Data was compiled and analysed in Excel and SPSS software using pivot tables, frequencies, means, and percentages. For price analysis, the following factors were considered:

- price movements
- association with local market conditions, including local drivers of supply and demand and their relations in agricultural markets
- seasonality
- import and export policies
- any potential impacts of the pandemic among other factors.

¹¹ NB: While the report covers wheat, consumption of that commodity in Kenya is comprised mainly of wheat products (flours, pastries, and highly processed foods) rather than raw wheat itself.

REFERENCES

- Central Bank of Kenya (2020). Monthly exchange rate data. Available at <https://www.centralbank.go.ke/statistics/exchange-rates/monthly-exchange-rate-period-average/>.
- Food Security War Room (FSWR) (2020). *National and County Governments Protocols During the Corona Virus Pandemic; Proposed Strategies /Plans to Stabilize Staple Food Prices Under the COVID 19 Pandemic*.
- Irungu, C., Mburu, J., Maundu, P., Grum, M., and Hoeschle-Zeledon, I. (2007). *Analysis of markets for African leafy vegetables within Nairobi and its environs and implications for on-farm conservation of biodiversity*. Rome, Italy: Global Facilitation Unit for Underutilized Species (GFU)
- Ministry of Agriculture Livestock and Fisheries (MoALF) (2021). *Market Research and Information June 2021 Data*.
- ReliefWeb (2020). *The Impact of COVID-19 on Food Security and Nutrition, June 2020*. Available at <https://reliefweb.int/report/world/policy-brief-impact-covid-19-food-security-and-nutrition-june-2020>
- The Kenya Gazette Notice No. 3072 (2021). The Crops Act (No. 16 Of 2013; The Crops (Irish Potato) Regulations (L.N. No. 17 Of 2019). Central Bank of Kenya. Available at <https://npck.org/irish-potato-regulations-2019/>.
-

ABOUT THE AUTHORS

Ruth T Chepchirchir: African Research and Economic Development Consultants Limited (AFREDEC), Nairobi, Kenya

Maina B.J.K: African Research and Economic Development Consultants Limited (AFREDEC), Nairobi, Kenya

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

A world free of hunger and malnutrition

IFPRI is a CGIAR Research Center

1201 Eye Street, NW, Washington, DC 20005 USA | T. +1-202-862-5600 | F. +1-202-862-5606 | Email: ifpri@cgiar.org | www.ifpri.org | www.ifpri.info

© 2021 International Food Policy Research Institute (IFPRI). This publication is licensed for use under a Creative Commons Attribution 4.0 International License (CC BY 4.0). To view this license, visit <https://creativecommons.org/licenses/by/4.0>.