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The role of local commodity exchanges in Improving food security in Africa

By

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Multi-year expert meeting on commodities and development, 13th session

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The significance of food insecurity in Africa: Ethiopia & Ivory Coast

Food security exists when **all people**, at all times, have **physical** and **economic access** to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (FAO, World Food Summit, 1996).

Ivory Coast

Population: **25 million** people in 2020

46% live below the poverty line (USD 1.22 per day).

10.8% of people were food insecure (**2,700,000**)

21.6% of children under 5yrs chronically malnourished

5.90 million of people with insufficient food consumption in April 2022

23.51% of total population with insufficient food consumption

Sources: WFP, 2022; World bank, 2022

Ethiopia

Population: **115 million** people in 2020

27% live below the poverty line (USD 1.9)

7.39% of people were highly food insecure (**8.5 million**)

26.30 million of people with insufficient food consumption in April 2022

24.8% of total population with insufficient food consumption

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The impacts of the war in Ukraine on food security in Ethiopia

Russia and Ukraine are major players in the export of wheat and sunflower to Africa. They supply approximately, 80 per cent of wheat imported in Africa.

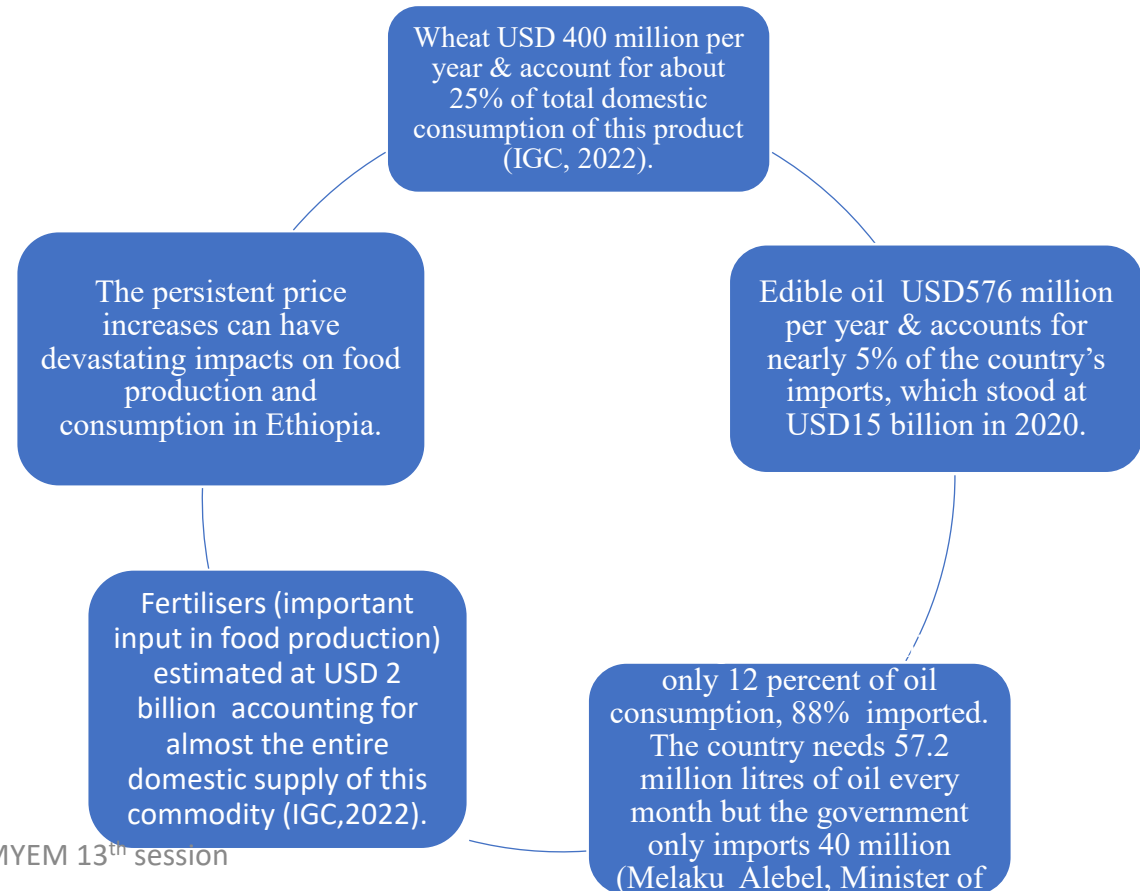
High inflation in food prices

- ❑ Wheat prices increased by **48%**
- ❑ Edible oil prices increased by **49%** in Ethiopia (January-June 2022).
- ❑ In May 2022, headline inflation increased to over **37** percent from 34.5 in January 2022



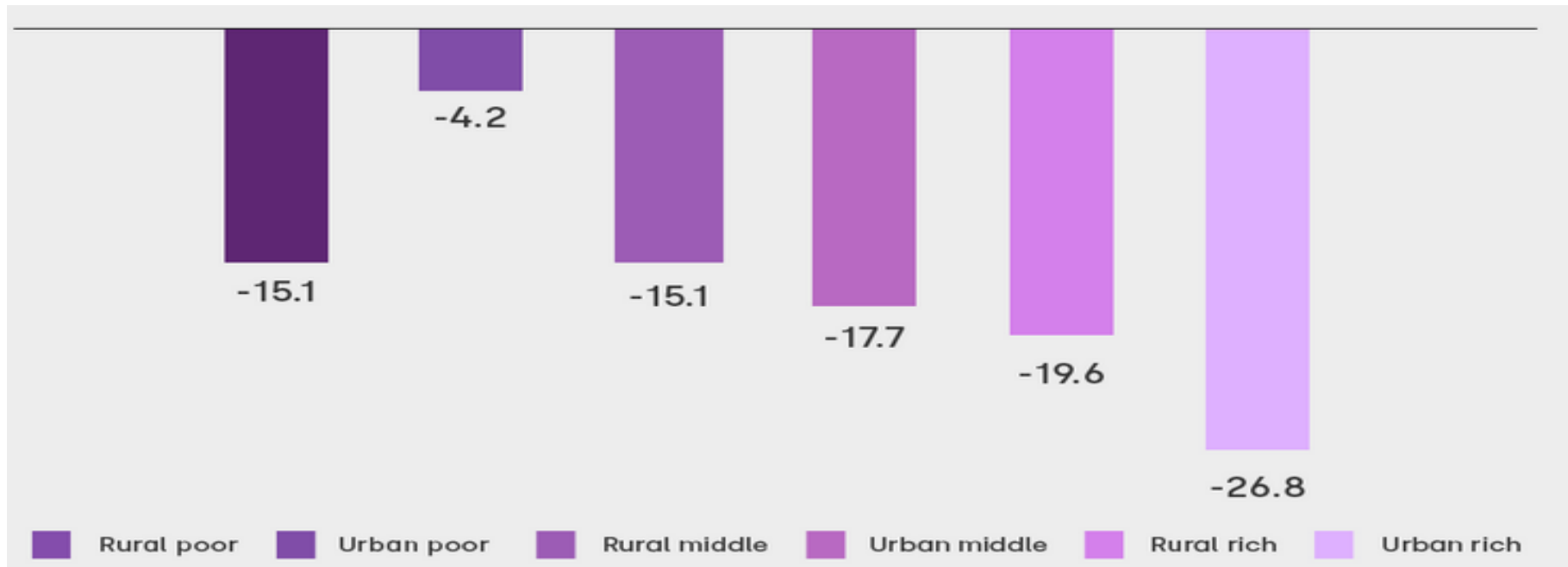
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Ethiopia's needs for wheat and edible oil



MYEM 13th session

Impacts of commodity price increases on households' incomes in Ethiopia.

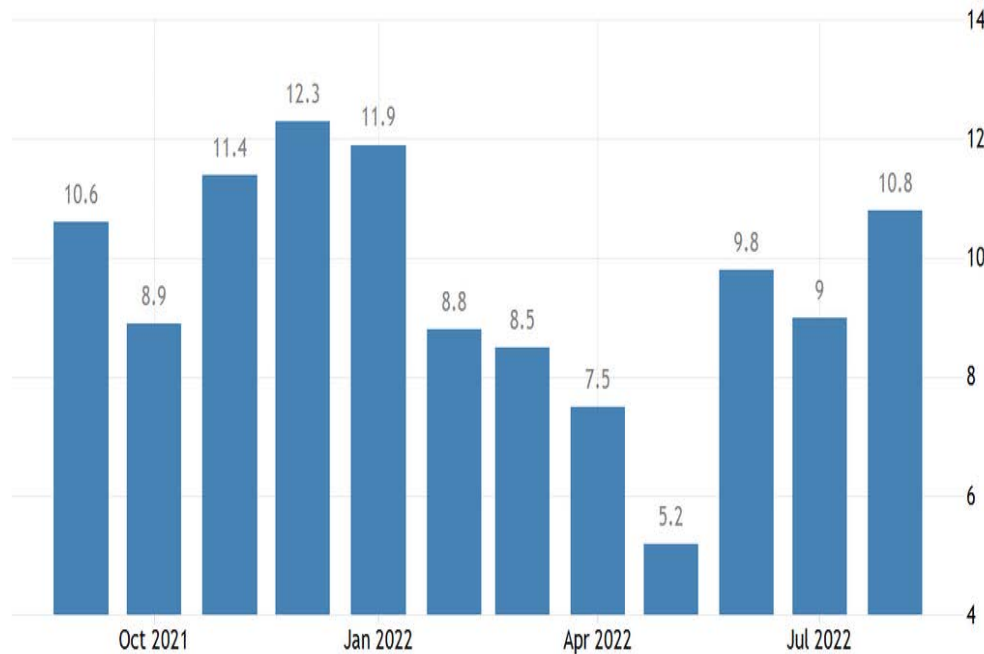


- Largest decrease for urban rich households
- Worst hit are rural poor households due to low levels of savings and limited capacity to absorb price increases. Food items take up largest portion of income.

Source: International Growth Centre, 2022

Food Inflation in July 2022

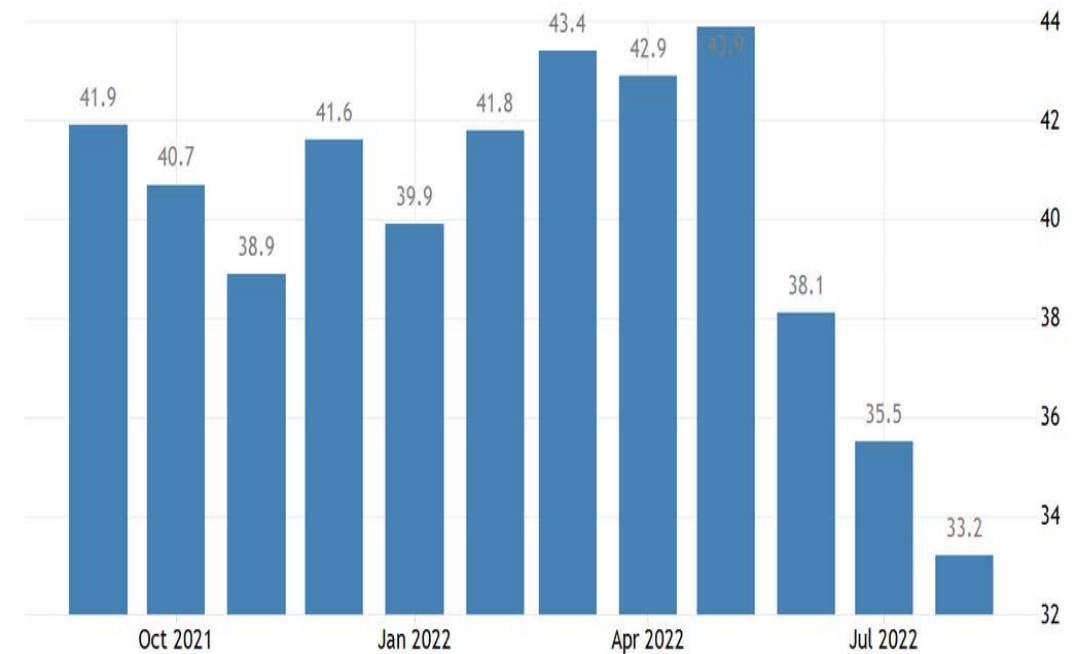
Ivory Coast



Cost of food in Ivory Coast increased by 9 percent in July 2022 over the same month in the previous year.

Source: Intitut National de la Statistique
10-12 Oct 2022

Ethiopia



Cost of food in Ethiopia increased by 35.50 percent in July 2022 over the same month in the previous year.

Source: Central Statistical Agency of Ethiopia.

Inefficiencies in food systems that hamper food security in Africa

- Limited and costly access to Agri-inputs for smallholder farmers in many African countries.
- Trade costs remain high due to non-tariff factors such as poor-quality infrastructure, dysfunctional logistics services, and lengthy bureaucratic trade procedures resulting delays and high compliance costs on food security.
- Smallholder farmers are not connected to domestic supply chains and market signals
- Lack of local value-adding and post-harvest storage making farming less profitable
- Lack of transparency in trading systems
- Limited or no access to finance for smallholder farmers.
- Barriers such as import restrictions, high transport costs and a lack of standards and quality policies make it impossible to share resources and food staples among countries in Africa (World bank, 2021).

A notable driver of food insecurity in Africa is poor trade facilitation which increases trade costs and constrains access to regional markets.

The role of a commodity exchange in improving food security

- ❖ Local commodity exchanges can create environment where trading can be done with minimum friction and maximum ease, resulting in an increase in trading volumes and traders' interest to trade in the food market. Thus, enhancing food security in Africa
- ❖ Improve food market resilience through price discovery
- ❖ Improve food market liquidity by making it a place where transactions can be executed quickly and where a large transaction volume has only marginal price effects. This is especially important with the implementation of AfCFTA.
- ❖ A commodity exchange have the potential to improve the food market systems in Africa in terms of greater inclusiveness and private sector engagement.





The role of a commodity exchange in improving food security

- ❑ Organising market more efficiently and promoting competition thus reducing transaction costs and improving food access and availability
- ❑ Providing market development opportunities by connecting smallholder farmers in rural areas to large markets. Thus, increasing income earning capacity, which is key to households' food security.
- ❑ Facilitating food storage through its warehouses.
- ❑ Through the warehouse receipt system, an exchange can facilitate smallholder farmers participation in market opportunities and access to input loans to purchase items such as fertilisers - a key component to help increase yields.
- ❑ Reducing default risks in trading thus encouraging investment in food systems (zero default policy).
- ❑ Managing price risks within the food market by offering future trading .
- ❑ Creating jobs and increase income earning capacity, which is the key to households' food security.
- ❑ Disseminating relevant information to all market actors which is pivotal to efficient trading.

ECX successes in improving food security

- Price Transparency, disseminating price data to all market actors. Better prices and planting decision for farmers
- Fast payment guarantee for Producers-increases smallholder farmers economic access to food
- Warehouses provide storage facility- increase food availability
- Delivery guarantee for buyers-zero default policy- minimises risks and increases incentive to trade
- Minimum level of quality guarantee for buyers- increase confidence and improves the quality of production
- Logistics and market access- national and international (Increased market access for producers through the centralised marketplace)- increase efficiency and reduces costs.
- Faster and well regulated communication making trading easier for foreign traders-Increased incentives to invest in food systems
- Improved quality due to standardised contracts and price flooring scheme, which limits the fall in the value of traded goods.
- Online auctions across the exchange making Ethiopian producers more resilient to the impacts of the Covid-19 pandemic.

Comparing coffee Transaction costs Ethiopia vs Kenya

March 2020 to March 2021

t-Test: Two-Sample Assuming Unequal Variances		
	Ethiopia	Kenya
Mean	104.7676759	259.212037
Variance	95.60520658	1741.633013
Observations	54	54
Hypothesized Mean Difference	0	
df	59	
t Stat	-26.47806237	
P(T<=t) one-tail	9.66598E-35	
t Critical one-tail	1.671093032	
P(T<=t) two-tail	1.9332E-34	
t Critical two-tail	2.000995378	

Summary statistics Arabica coffee Cts/Lb Ethiopia & Kenya

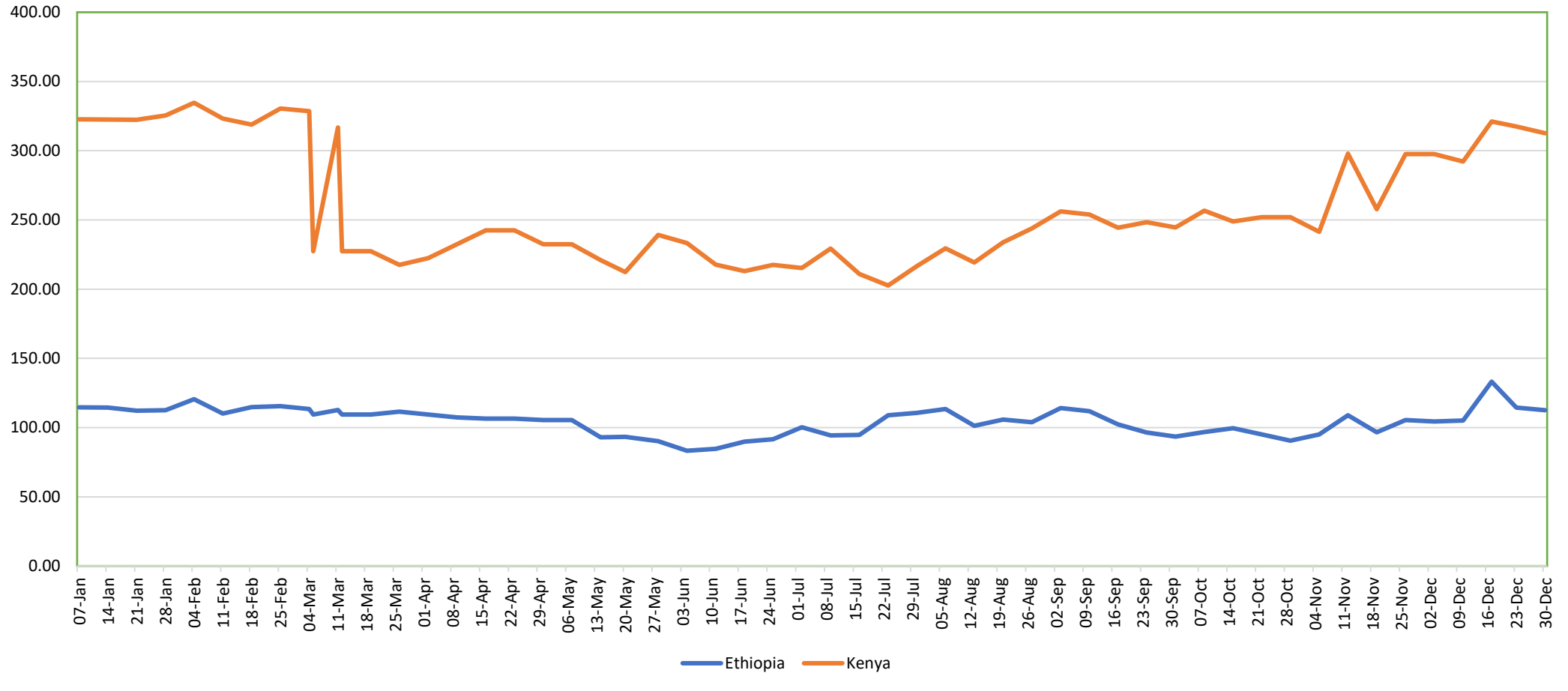
Ethiopia		Kenya	
Mean	104.768	Mean	259.212
Median	106.150	Median	244.075
Standard Deviation	9.778	Standard Deviation	41.733
Minimum	83.350	Minimum	202.700
Maximum	133.150	Maximum	334.550
Sum	5657.455	Sum	13997.450
Count	54.000	Count	54.000

Source: Author's computation

$P < .05$ Mean transaction costs are statistically different from one another. Ethiopia has the lowest transaction thus a more efficient trading system than Kenya.

Analysis of the relationship between transaction costs and producers' price indicate that for \$1 increase in transaction the resulting decrease in producers' price is \$0.26.

Arabica coffee Transaction costs in Ethiopia and Kenya March 2020 -March 2021



Data source: Commodafrica, 2021

Summary

Four national food policy goals that can be achieved through a well functioning commodity exchange (Watts and Bohle, 1993)

- Facilitate and enhance food producing or importing
- Help monitor regional availability of food, securely store and efficiently distribute food
- Shield smallholder farmers from unpredictable and distorted market fluctuations
- Enhance food production and create income earning opportunities especially for smallholder farmers which is key to household food security

Local commodity exchanges provide the infrastructure for fairer and more transparent trading systems.

Recommendations

- Local commodity exchanges can play a pivotal role in helping the continent feed itself especially during period of crisis
- Commodity exchanges in Africa can create a transparent and fair market system that facilitates trade, promotes investments and rewards producers adequately, thereby leading to more resilient food systems.
- Establishing well organised commodities exchanges that can manage risk, improve access to finance for major players in the food value chain and offer greater resilience to food systems is of paramount importance
- Local commodity exchanges are necessary complements to AfCFTA to boost trade and enhance food security in Africa





Thank you

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