

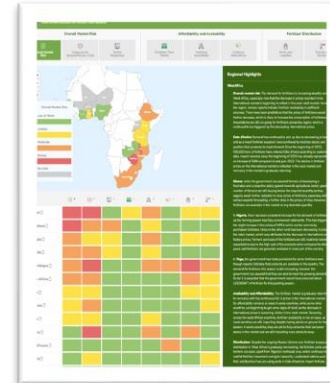
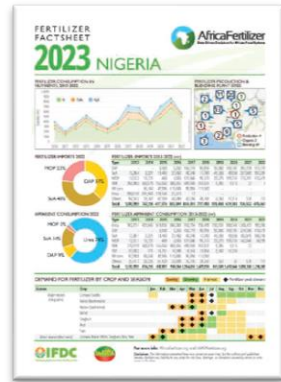
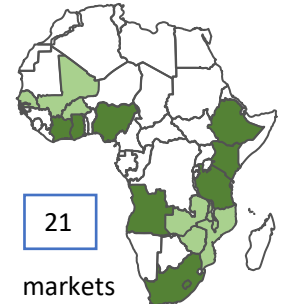
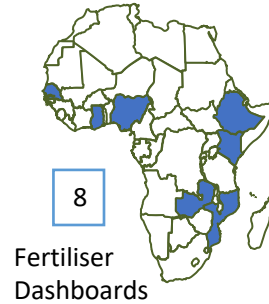
Geopolitics of Global Fertilizer Supply Chains:

Decarbonization and its implications for Africa

**African Fertilizer Industry and Potential for
Decarbonization**

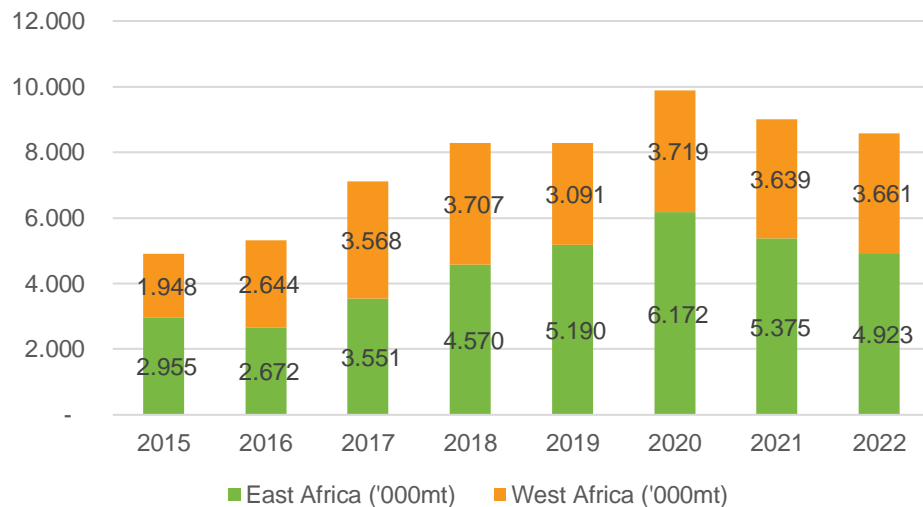
Sebastian Nduva, International Fertilizer Development Center, IFDC – 26th October 2023

Coverage with Partners on Fertilizer intelligence

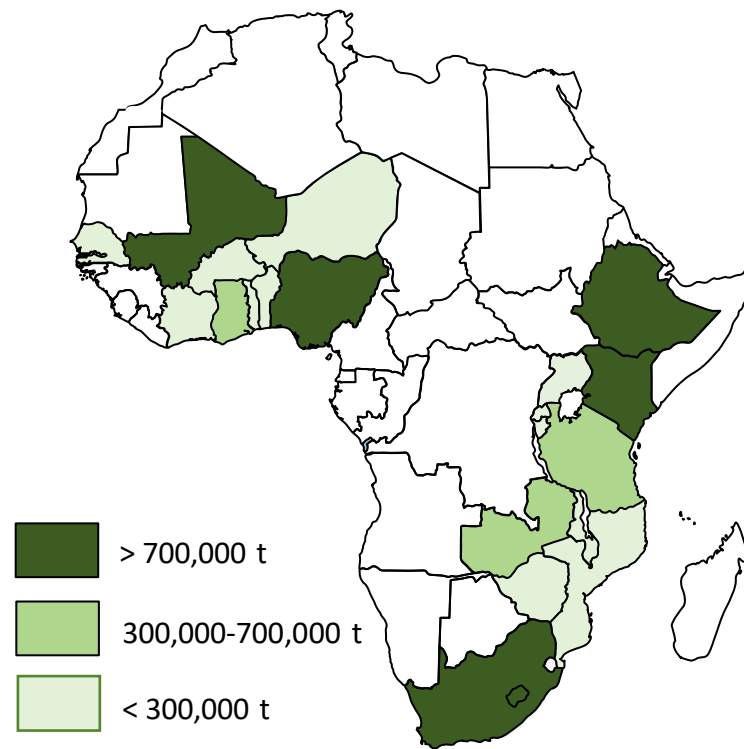


Market Overview for Sub-Sahara Africa

Average Fertilizer Consumption SSA
19 countries* ('000mt)



West Africa Average 3.5 Million tonnes
East/Southern Africa Average 5-6 Million tonnes



Source: AfricaFertilizer

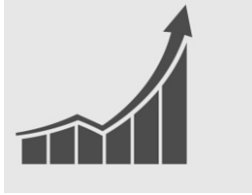
Fertilizer Consumption facts and figures



Image:dreamstime

- SSA consumes about 11-12m tons of product (about 6m tons of nutrients).
- Accounts for about 3-4% of total global consumption.
- Average consumption per hectare as of 2006 was estimated at 8kg/Ha of nutrient tons. As of 2018, it stood at 22kg/Ha of nutrients .
- This is poised to grow to 32kg/Ha of nutrients by 2025.
- Over the last decade average growth has been at 11%
- If Africa achieves the Malabo declaration target of 50kg/ha of nutrient tons by 2025, this translates to doubling of absolute tonnage

Main Impact of the Crisis on African Markets



Commodity price volatility
input and output markets



Demand destruction on
fertilizer quantities into
African markets



Shifts in trade patterns/
routes



Food security concerns



Macro economic issues



AfricaFertilizer
Data-Driven Decisions for African Food Systems

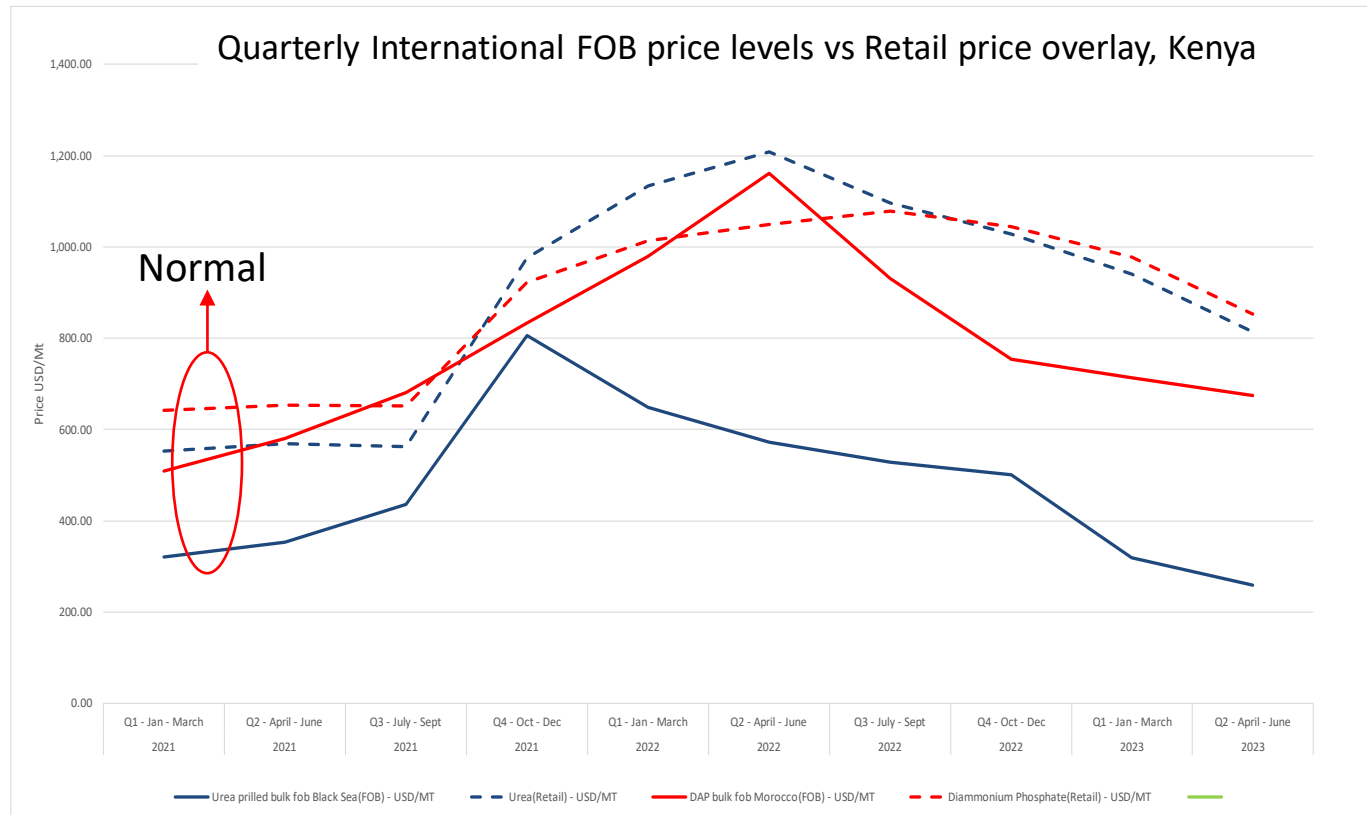
Main Impact of the Crisis :On price



Price Spikes

- Over the last 10 years, price spikes have only been evident in the last 2-3 yrs.
- This had severe implications on procurement frameworks by players in Africa

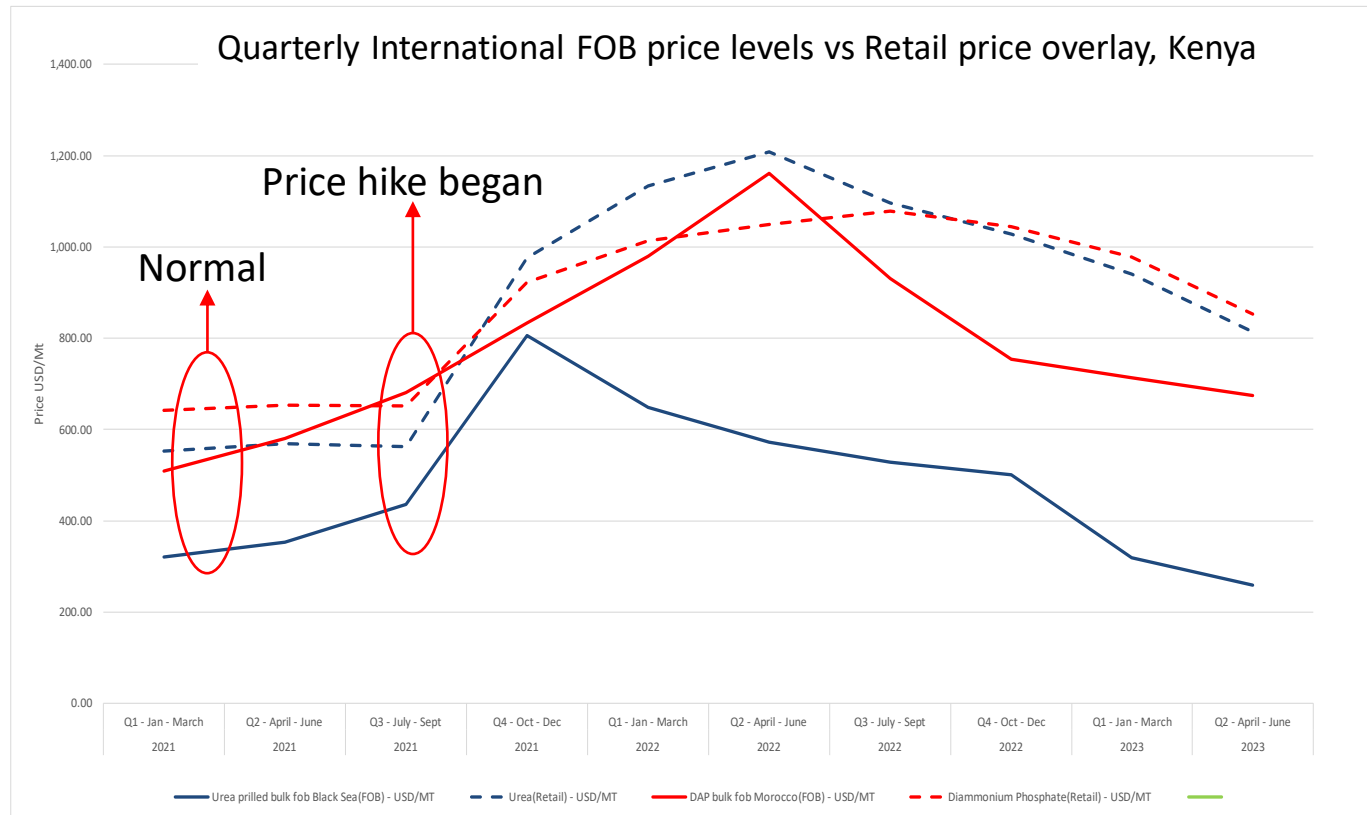
Main Impact of the Crisis :On price



Urea	Ksh/50 kg bag	\$/50 kg bag
2018	2,519	25
2022	6,362	63

DAP	Ksh/50 kg bag	\$/50 kg bag
2018	3,100	30
2022	6,024	59

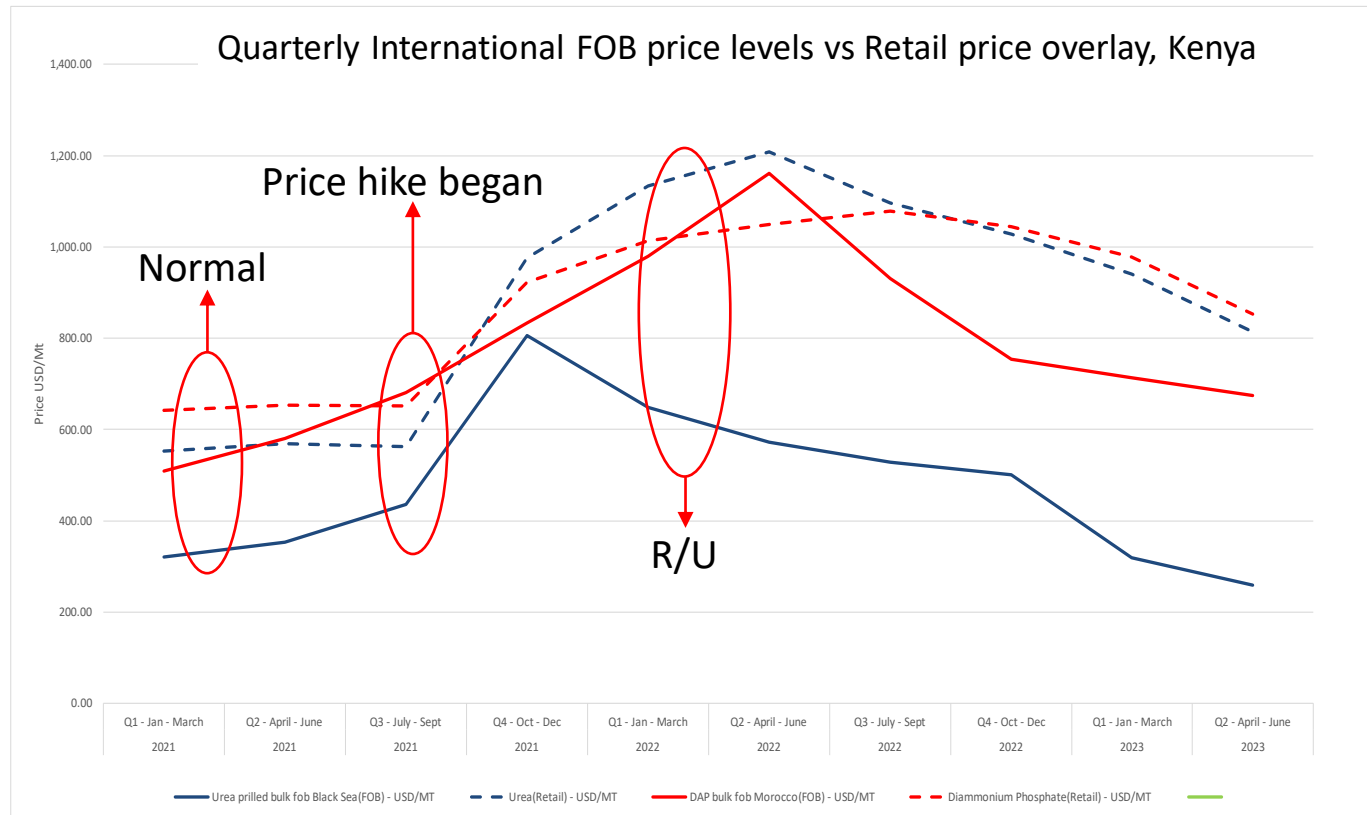
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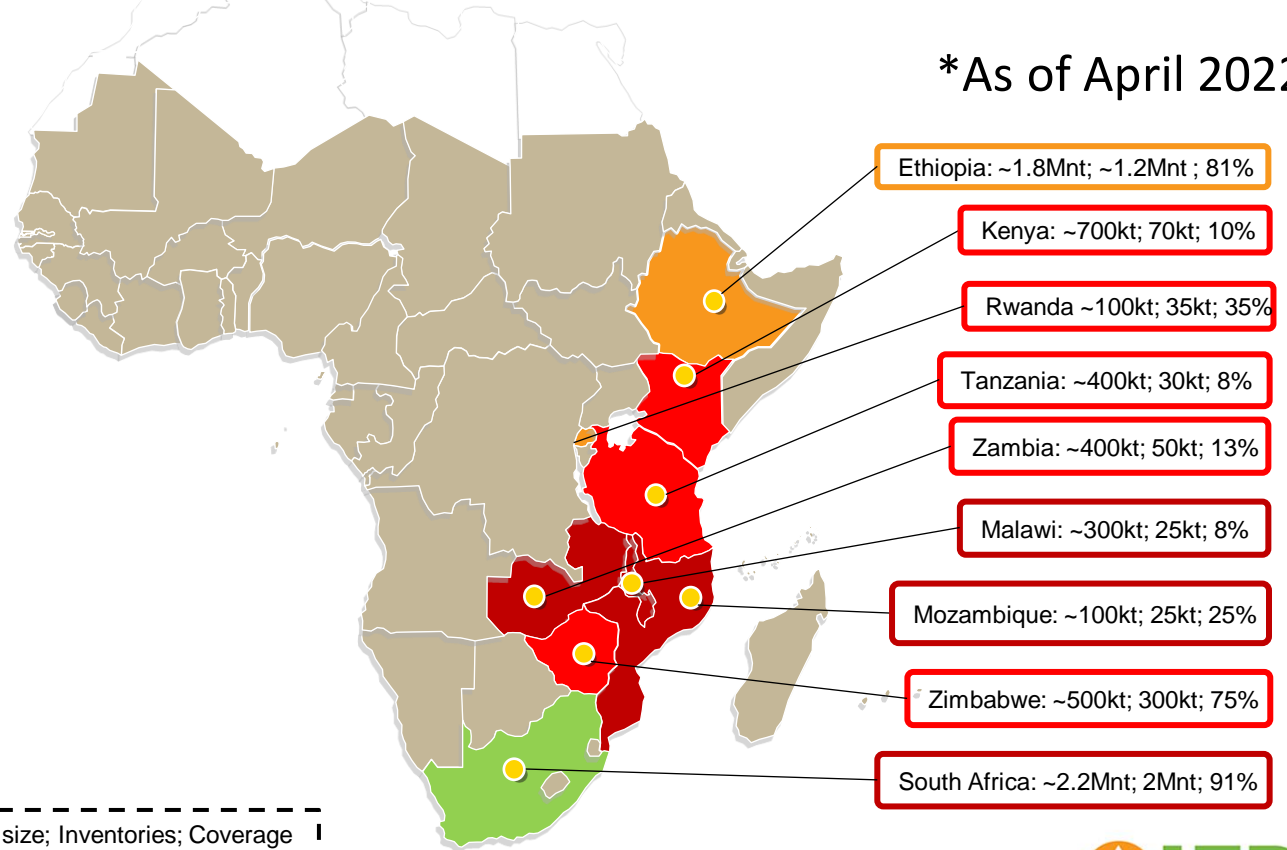


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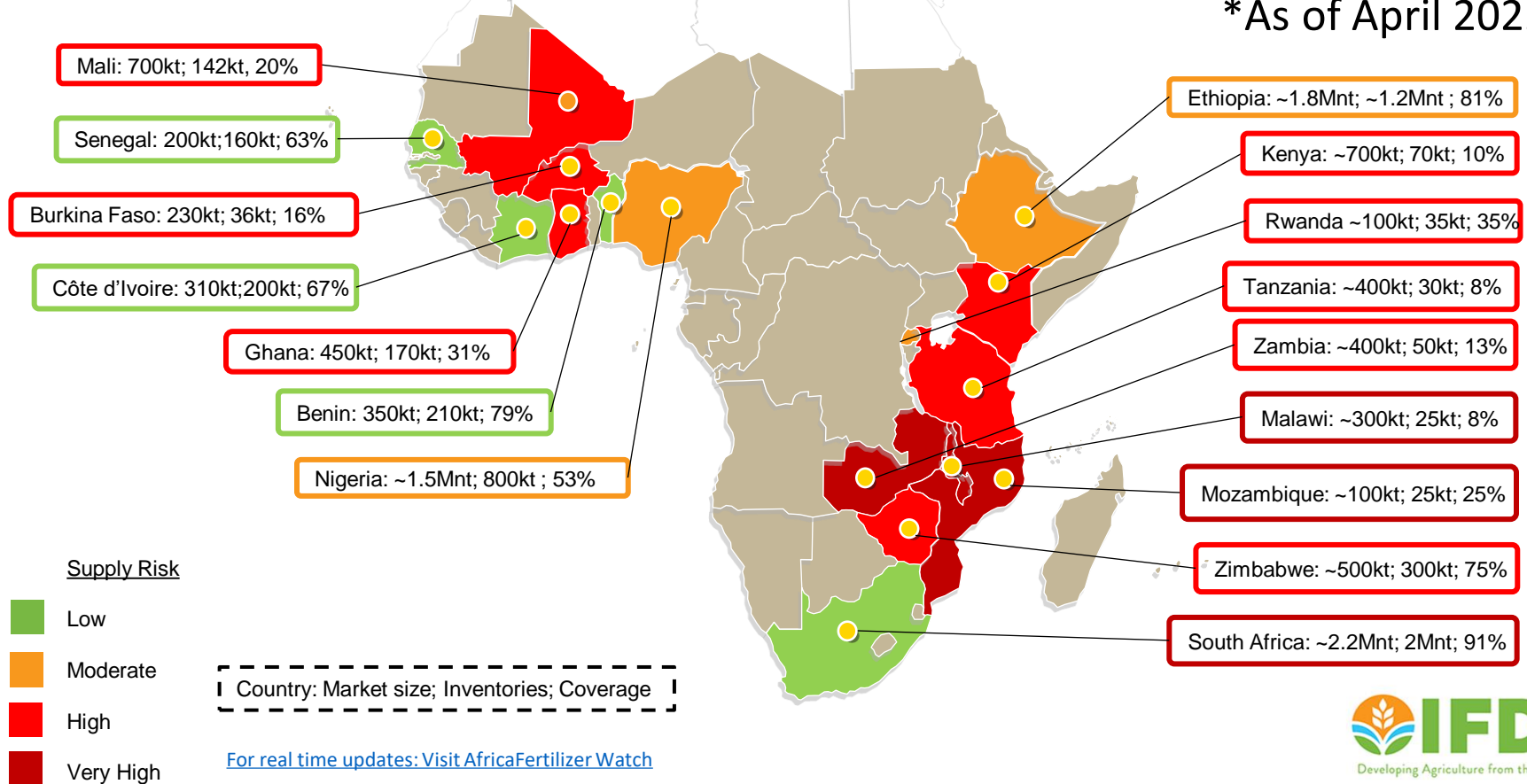
Main Impact of the Crisis : On Inventory

*As of April 2022



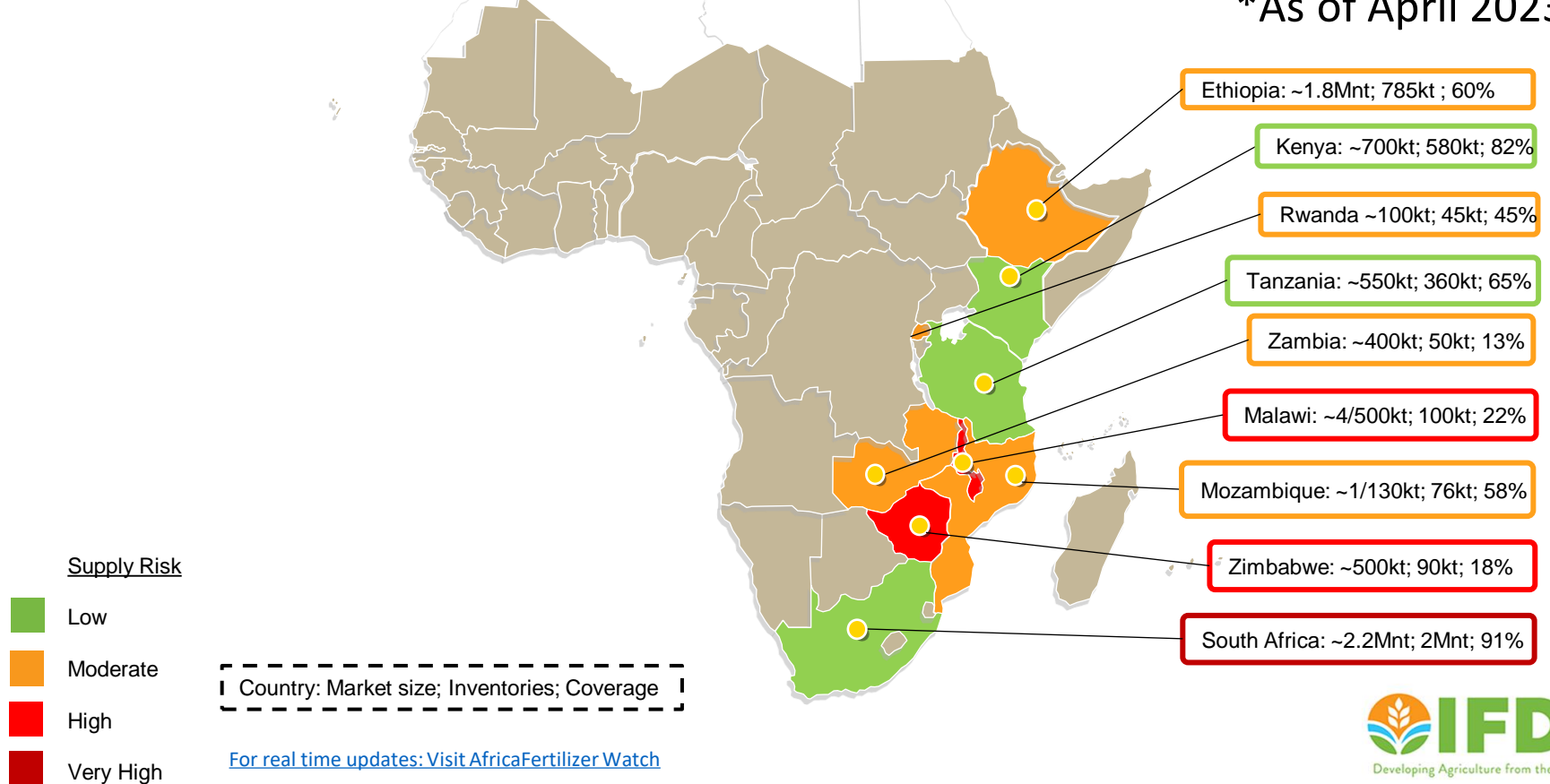
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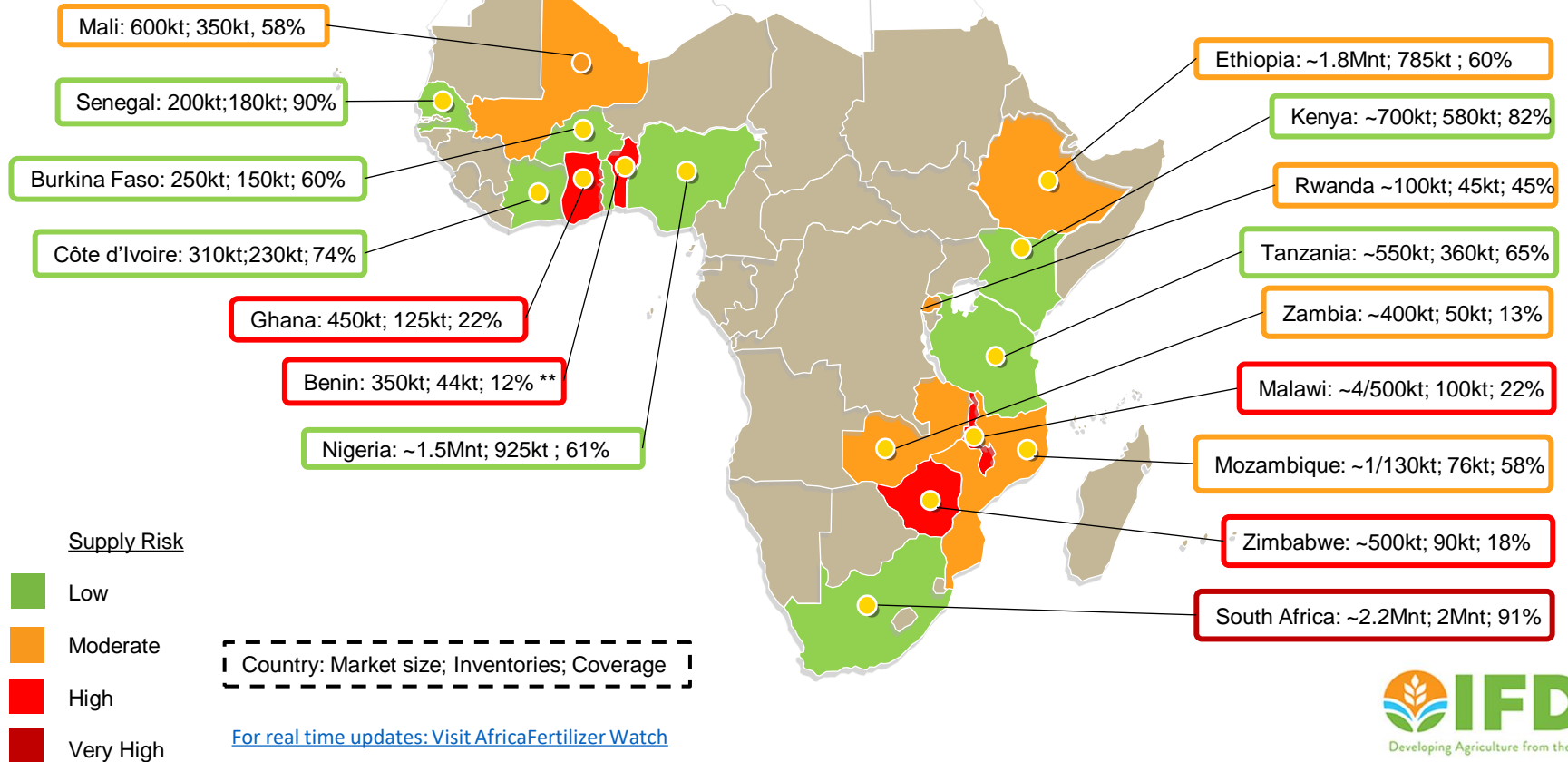
Main Impact of the Crisis : On Inventory

*As of April 2023



Main Impact of the Crisis : On Inventory

*As of April 2023



Fertilizer production in Africa



- Most of primary production in Africa is situated in North Africa (Egypt, Libya, Algeria, Morocco) and in West Africa (Nigeria, Senegal, B.Faso Togo etc). Find more details [here](#)
- Some countries already established low carbon pathway policies by 2030 e.g Egypt.
- Moving towards sustainable production methods is resource heavy, this might impede rate at which this becomes a reality in Africa.

Decarbonization agenda for Africa

- Africa's advancement toward sustainable and eco-friendly approaches to fertilizer production etc. remains at an early stage of development.
- As an import dependent market, having a low carbon footprint product poses challenges
- Several considerations to fast track this ambition

Short term measures

- Optimized Nutrient Use efficiency
- GHG Emissions reduction
- Policy and Governance towards pro-sustainable agriculture
- Global collaboration and knowledge transfer

Mid-Long-term measures

- "Disruptive in-situ/offsite, low capex production units e.g., nitricity, Talus renewables?"
- Enhanced production capacity within Africa with renewable sources of feedstock?
- Alternative fertilization with reduced GHG Emissions
- Carbon sequestration/Carbon farming/credits



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Data-Driven Decisions for African Food Systems

Thank You

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