



Cotton fertilizer in West Africa



WORLD TRADE
ORGANIZATION

WTO ROUND TABLE

THE CURRENT MARKET SITUATION FOR
FERTILIZERS AND VIABLE ALTERNATIVES
FOR COTTON PRODUCTION

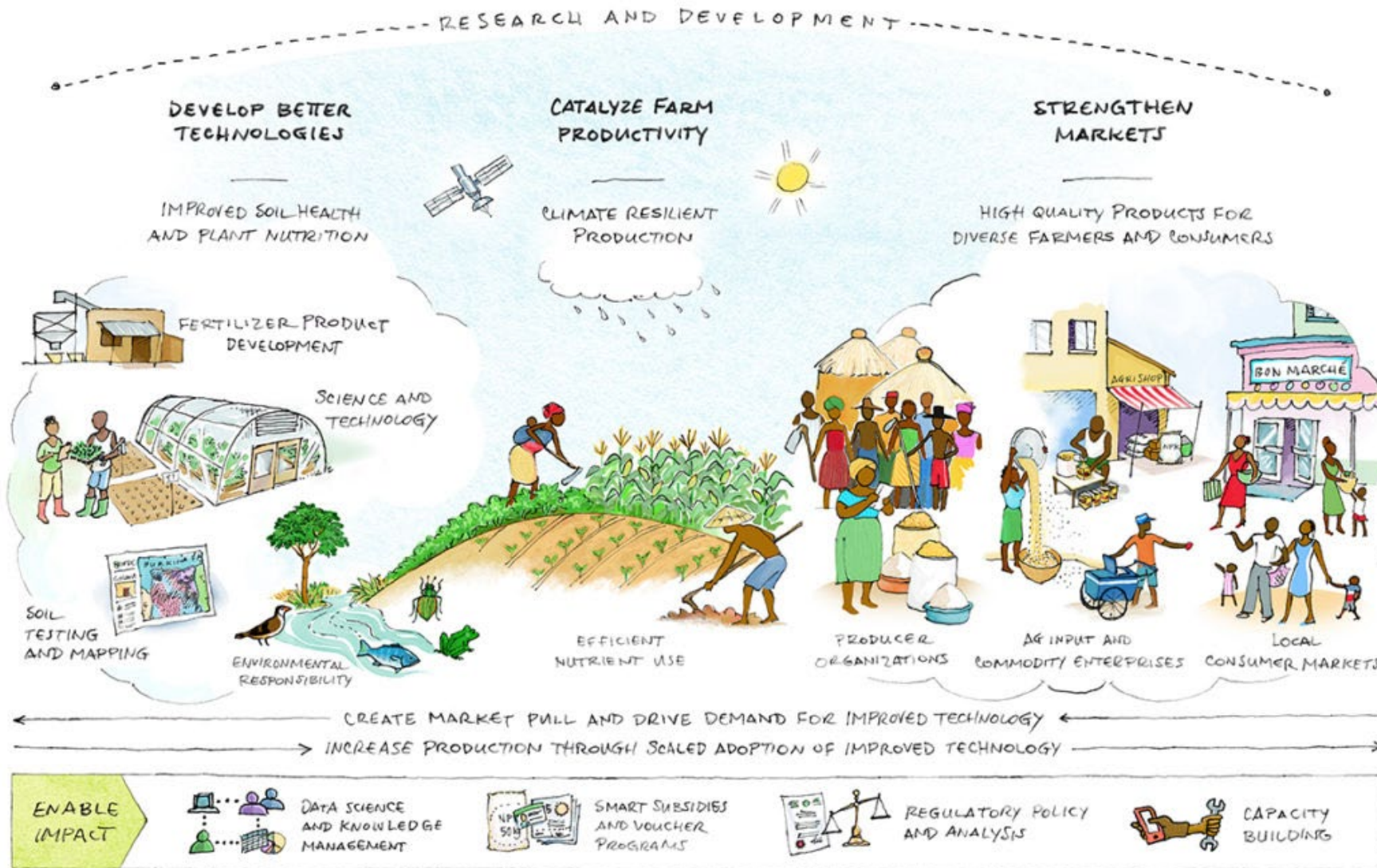
10 November 2022

Patrice Annequin

Senior Fertilizer Market Specialist

IFDC

IFDC – Mission in Action



- A non-profit Public International Organization
- Established in 1974, in response to the first oil crisis



IFDC – Key Projects in West Africa

ENGINEERING & LAB SERVICES

LAB & ANALYTICS

- Research & product development
- Analytical laboratories
- Crop modeling and GIS



FIELD

- Greenhouses
- Field trials
- Soil SMaRT approach

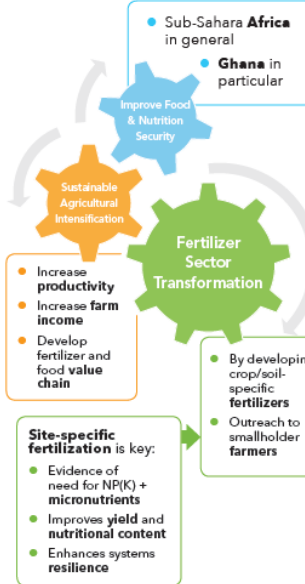
ENGINEERING & PILOT PLANT

- Continuous granulation pilot plants
- Technical assistance and training
- Physical property testing

APPLIED RESEARCH & INSTITUTIONAL PARTNERSHIPS

FERARI

FERTILIZER RESEARCH & RESPONSIBLE IMPLEMENTATION



FERTILIZER MARKETS



ENHANCING GROWTH THROUGH REGIONAL AGRICULTURAL INPUT SYSTEMS (EnGRAIS) PROJECT FOR WEST AFRICA

EnGRAIS

- Private sector investment
- Finance & logistics
- Product stewardship

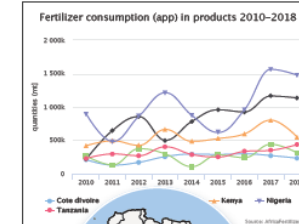
- Balanced fertilizers
- Agro-input packages
- UDP, microdose

- Fertilizer policies
- Regulatory systems
- Smart subsidies

FERTILIZER MARKET DATA



- Fertilizer statistics
- Fertilizer use by crop
- Cost build ups
- Fertilizer market assessments
- Fertilizer plant register
- Fertilizer dashboards
- FertiNews reaching 3,600 subscribers



OUTPUT MARKETS & SMALLHOLDER FARMERS

2SCALE

Incubating and accelerating inclusive agribusiness in Africa



- Improve access to nutritious food for BoP consumers
- Improve livelihoods of smallholder farmers
- Develop inclusive business strategies with local SMEs
- Scale up public-private partnerships
- Promote climate-smart agricultural practices

208 collaborators in

- Benin
- Burkina Faso
- Cote d'Ivoire
- Ghana
- Mali
- Niger
- Nigeria
- Senegal
- Togo

Key partners

- ECOWAS
- UEMOA
- CILSS
- CORAF
- WAFA

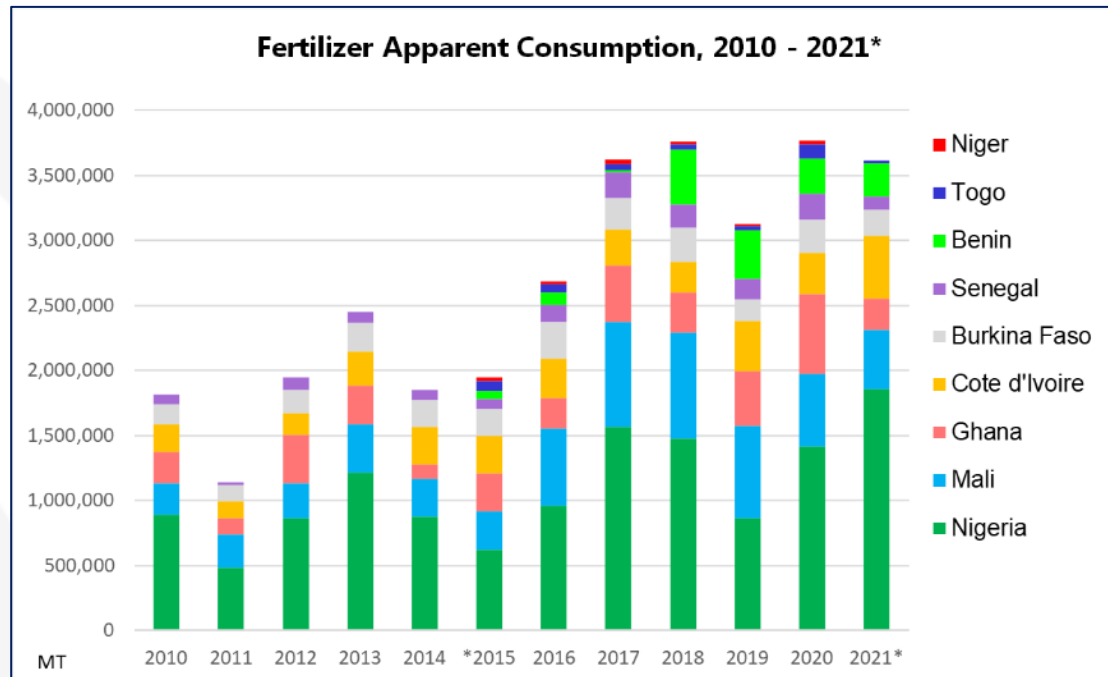
Key donors

- USAID
- DGIS & EKN
- BMGF
- MCC

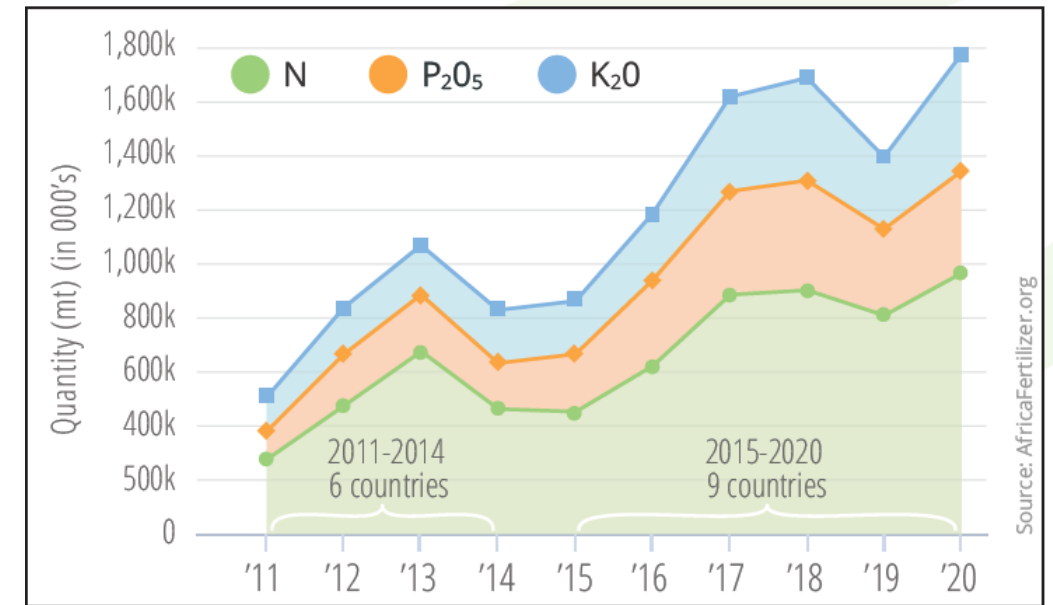
www.IFDC.org
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A fast-growing fertilizer market in West Africa



FERTILIZER CONSUMPTION IN NUTRIENTS, 2011-2020

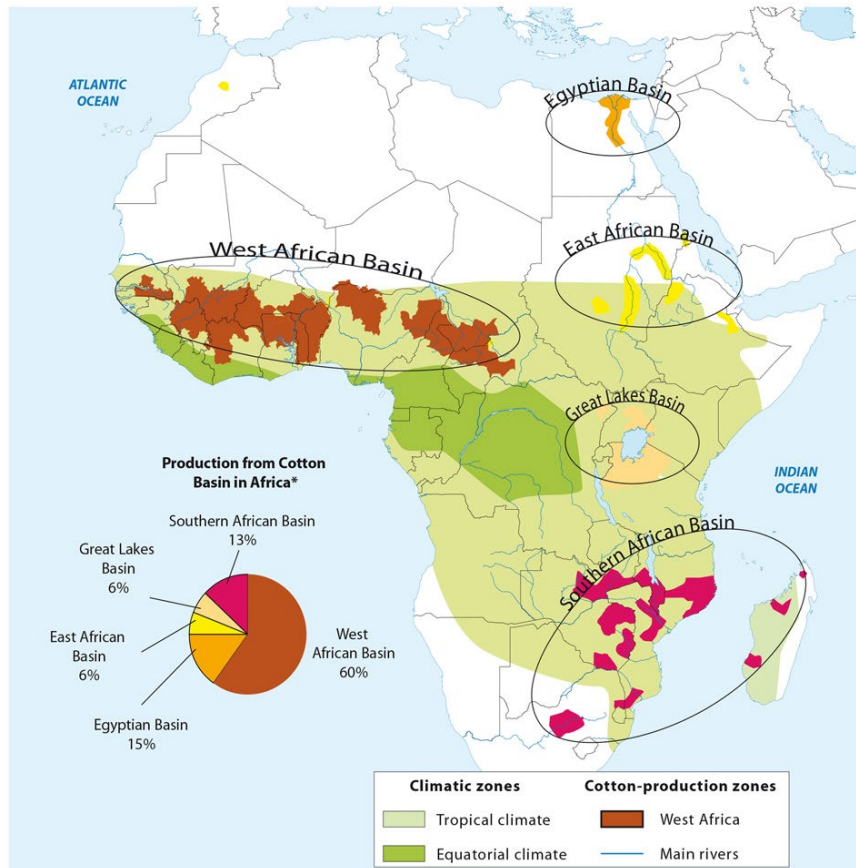


- Consumption : 3.5 to 4 million tons since 2017
- 2x since 2010
- Crisis: 1.2-1.5 million tons “missing” in 2022
- Nigeria production capacity: 6.5 mt of urea p.a.

- Nutrients: 60% N (urea, AS, NPKs), 20% P (DAP, TSP, NPKs), 20% K (MOP, NPKs)
- Finished products: 50% NPKs + 40% urea + 10% others

Producing Cotton in West Africa

COTTON PRODUCTION BASINS IN AFRICA

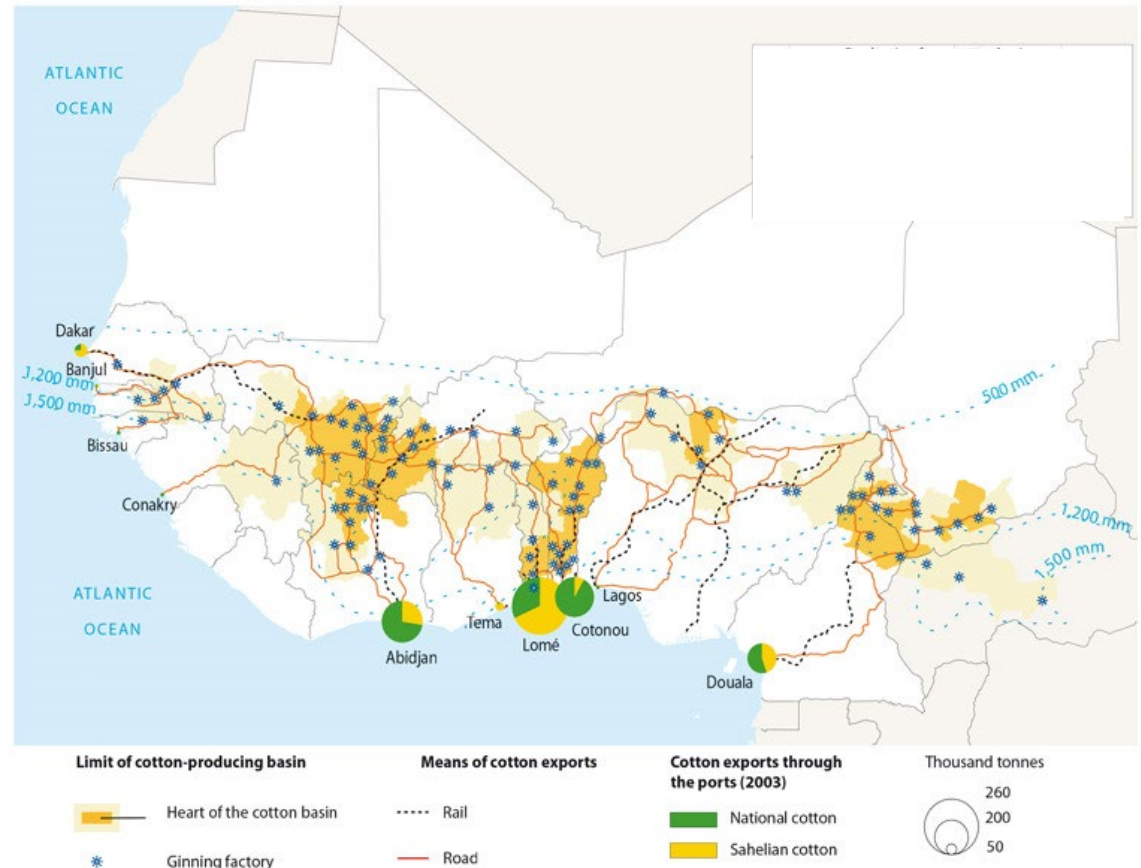


Extract: OECD/SWAC (2009), Regional Atlas on West Africa, OECD Publishing, Paris

Source: ICAC (2005)

© 2006. Sahel and West Africa Club Secretariat (SWAC/OECD)

COTTON ZONES OF WEST AFRICA

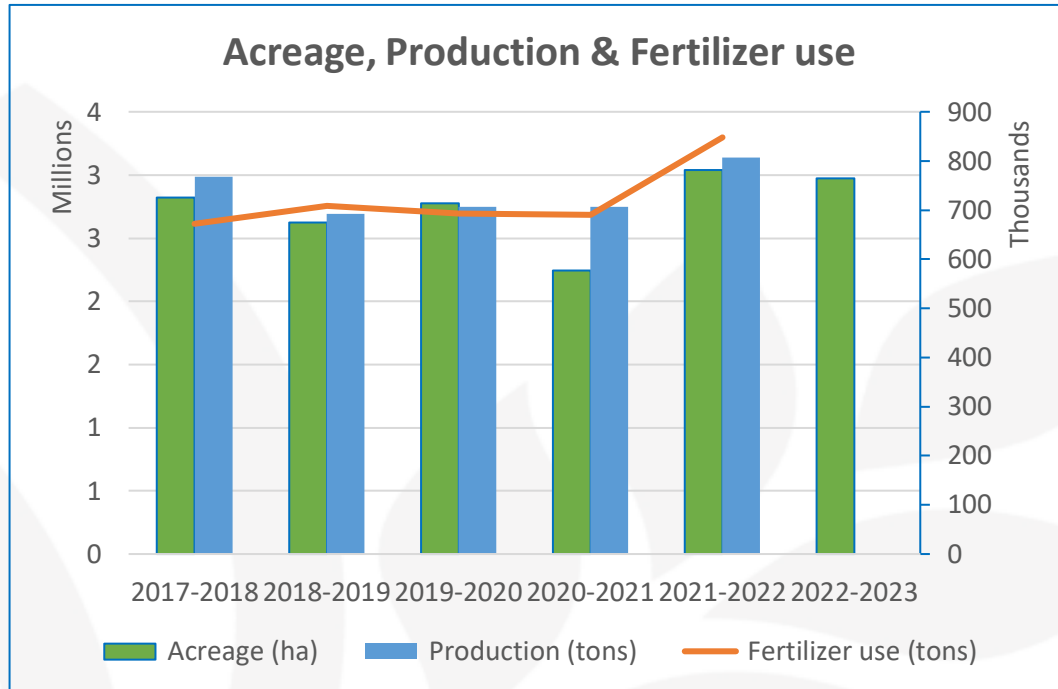


Extract: OECD/SWAC (2009), Regional Atlas on West Africa, OECD Publishing, Paris

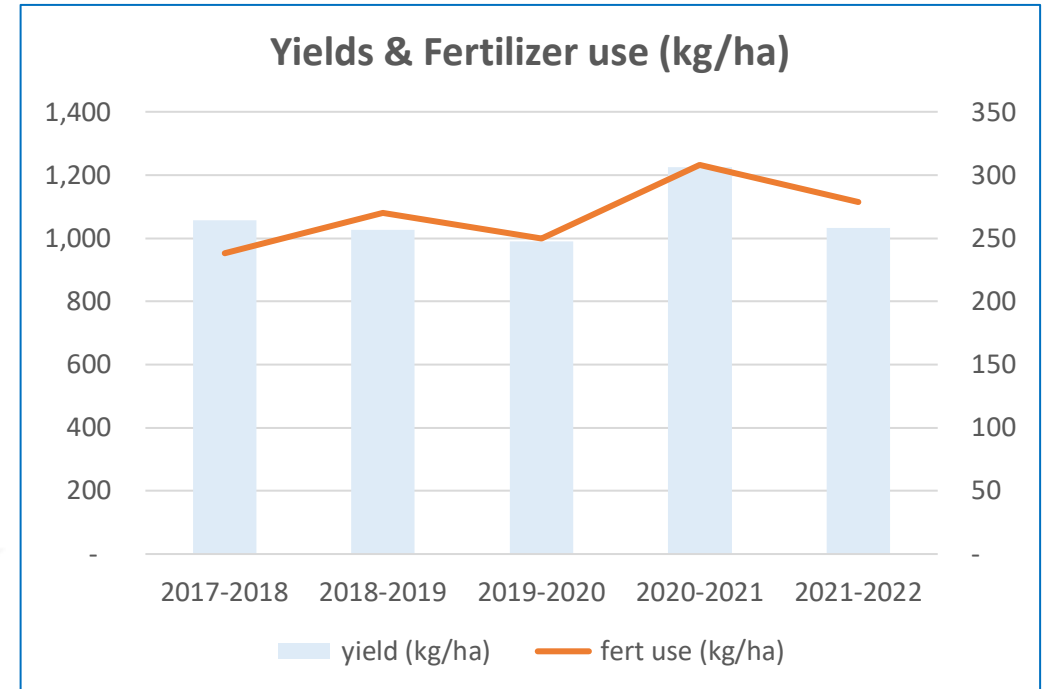
Source: FAOSTAT (2006)

© 2006. Sahel and West Africa Club Secretariat (SWAC/OECD)

8 Countries – Key Metrics

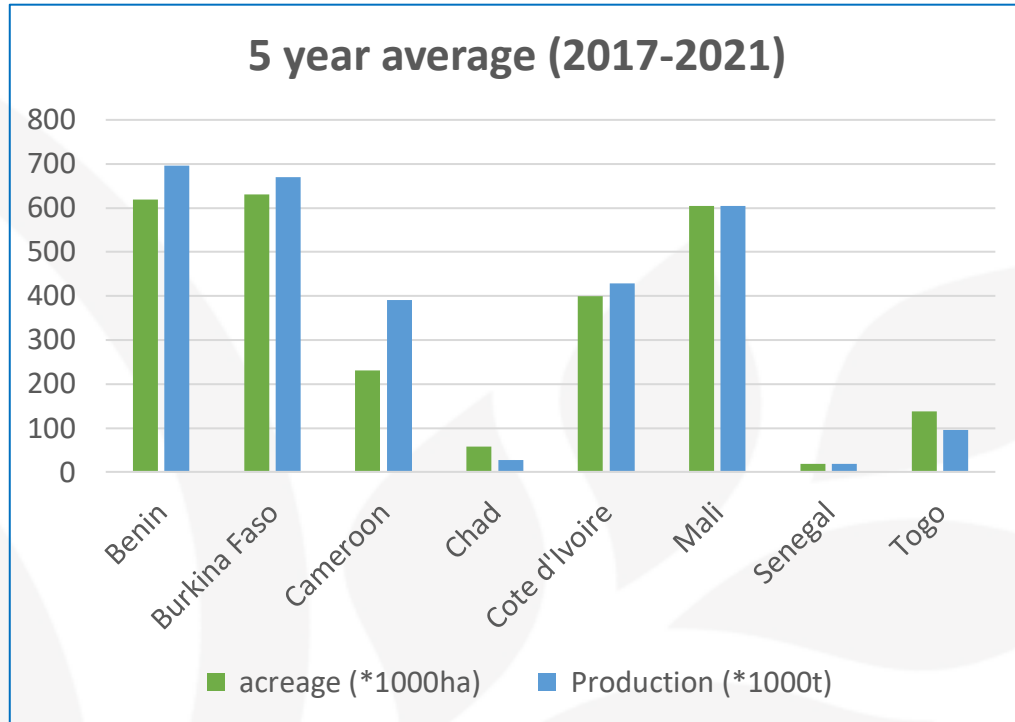


- 2.7 million ha for 2.9 million tons

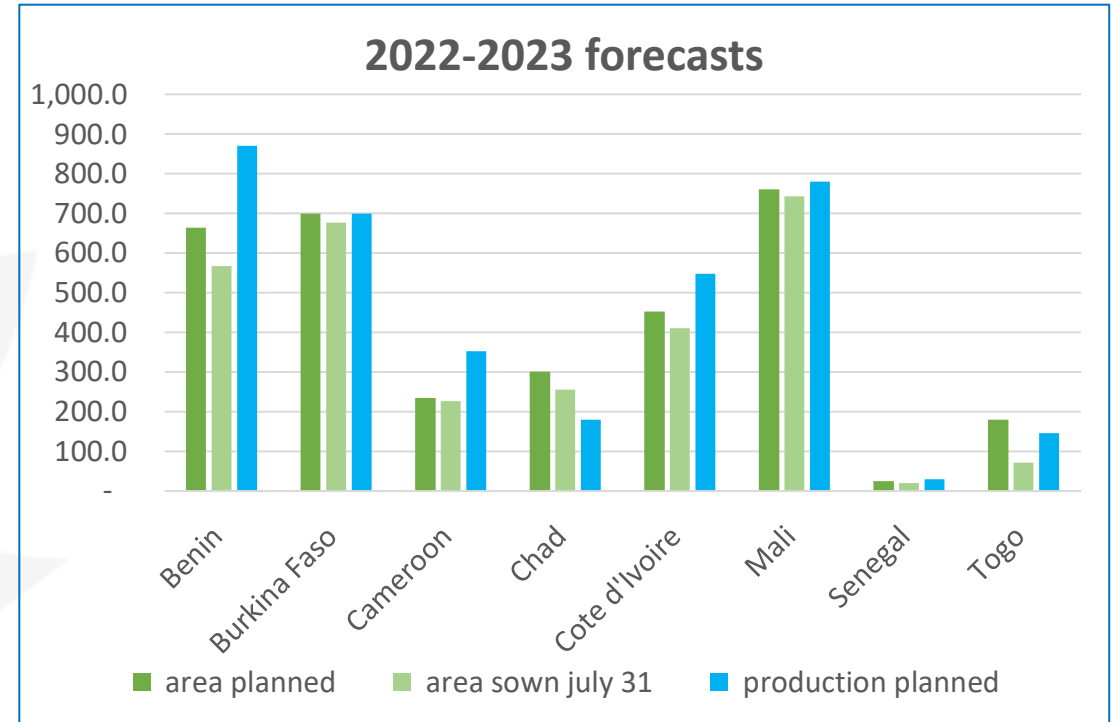


- Average yield: 1,09 ton/ha
- Average fertilizer use per ha : **246 kg**

Cotton Acreage & Production

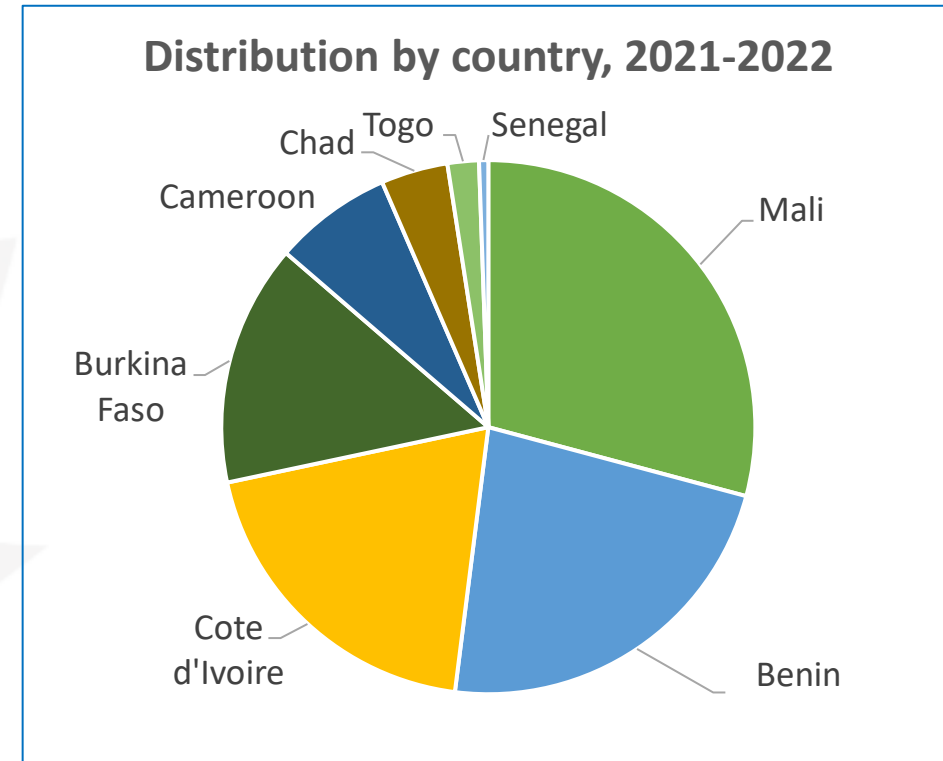
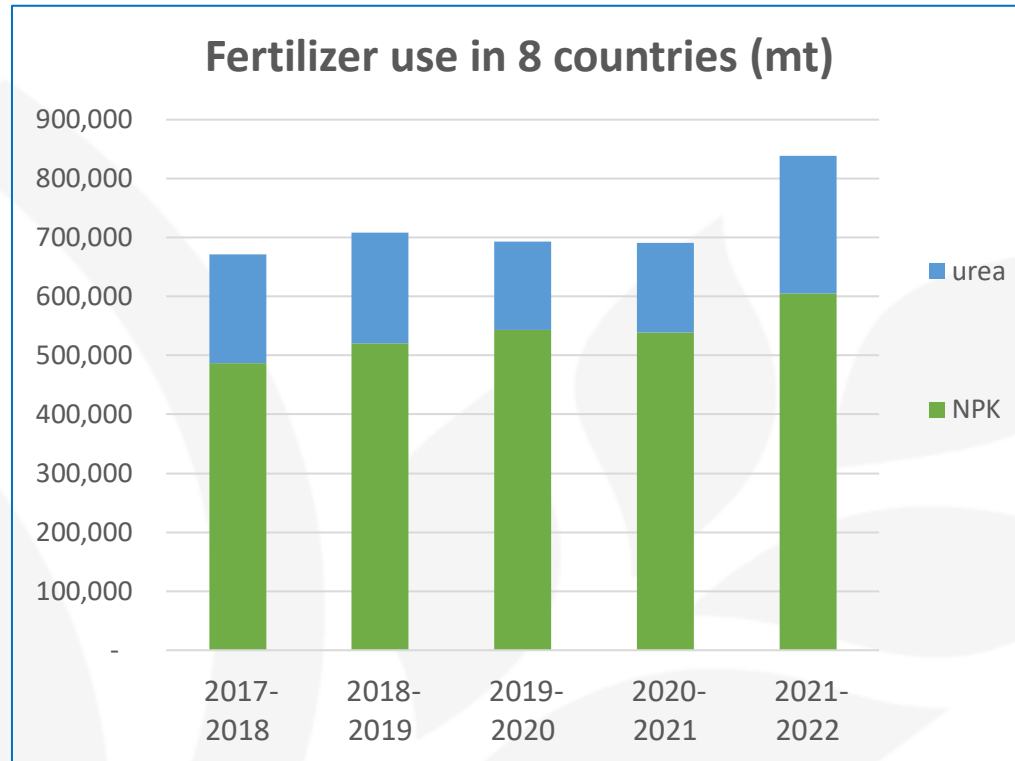


- Benin, Burkina Faso, and Mali lead, but with different dynamics and social contexts



- Forecasts: 3.3 million ha for 3.6 million tons
- July 2022: 90% sown (Togo 40%, Senegal 80%)

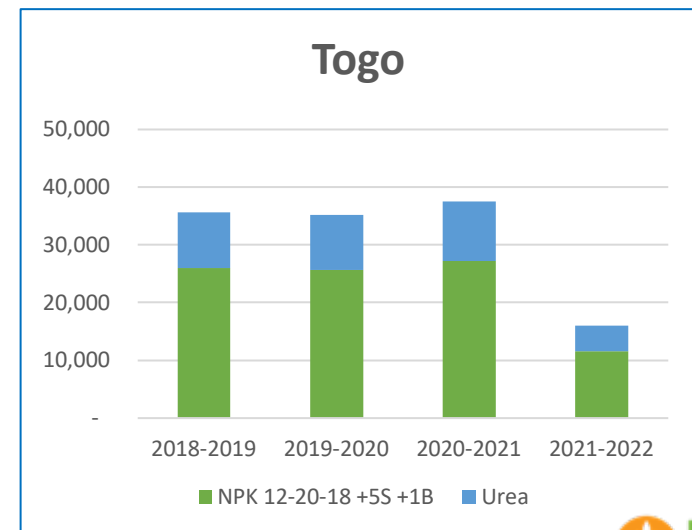
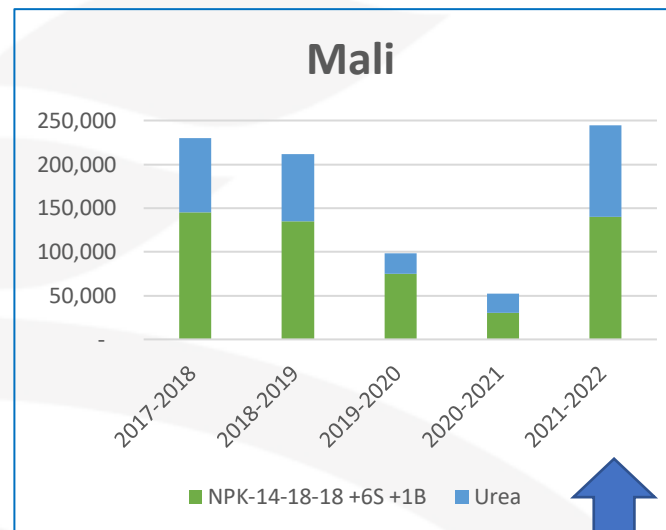
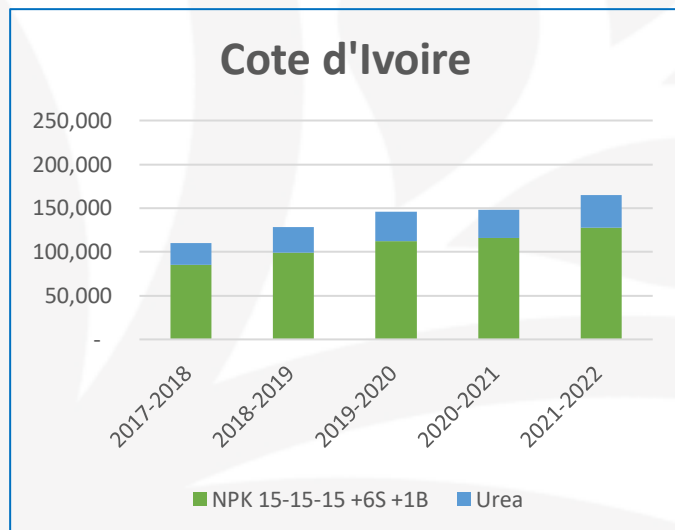
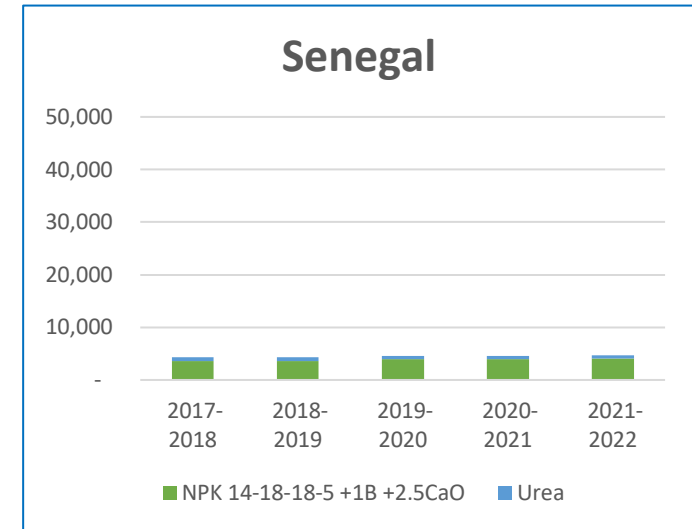
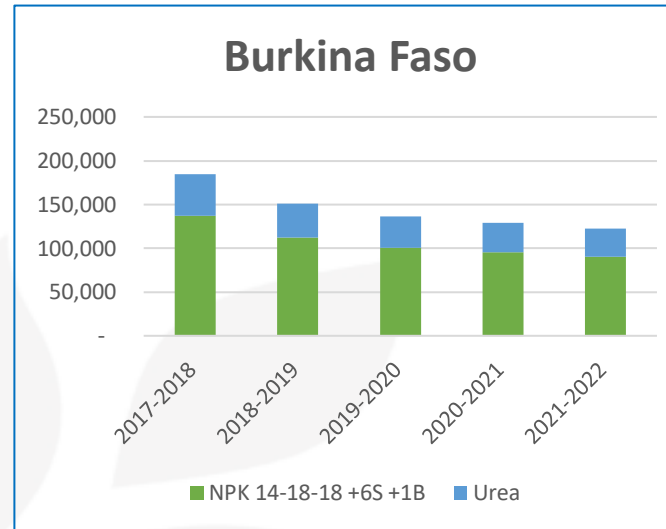
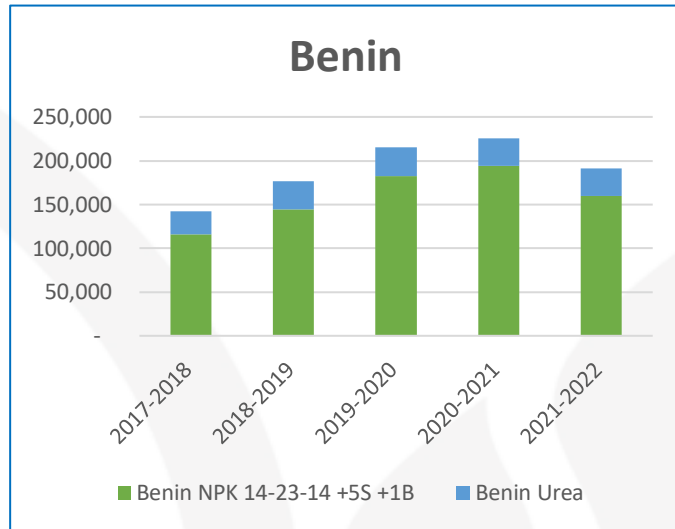
Fertilizer Consumption



- Average consumption over 5 years: 722,000 mt
- NPK 75% + urea 25%
- ~ 20% of total fertilizer used in West Africa

- Top 4 countries: 85%

Cotton Fertilizer Consumption per Country



Cotton Fertilization – little changes

Country	NPK grade
Benin	NPK 14-23-14 +5S +1B
Burkina Faso	NPK 14-18-18 +6S +1B
Cameroon	NPK 22-10-15 +5S +1B
Chad	NPK 15-15-15 +6S +1B
Cote d'Ivoire	NPK 15-15-15 +6S +1B
Mali	NPK 14-18-18 +6S +1B
Senegal	NPK 14-18-18 +5S +1B +2.5CaO
Togo	NPK 12-20-18 +5S +1B

- 200 kg/ha NPK + 50 kg/ha urea remain the norm
- 6 NPK formulas
 - One single grade per country
 - Burkina Faso + Mali
 - Cote d'Ivoire + Chad
- Blended locally or imported as compounds
- Prilled urea vs granular urea (Nigeria origin)
- Since 2022: the K risk factor

Fertilizers for Cotton – Import or Blend Locally?

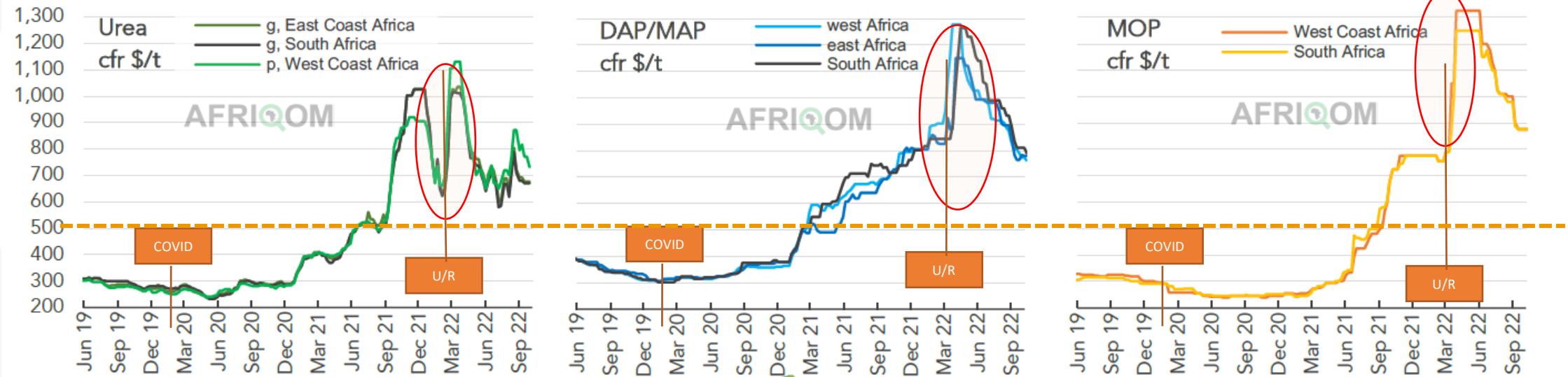
Fertilizer production and blending capacities in West Africa



- Blending or in transit ?
 - Blending options in Abidjan, Bamako, Bobo, Dakar, Lomé
 - Benin : compounds
- Before the crisis
 - Ghana smuggling to Burkina
- 2022
 - Sanctions against Mali
 - K shortages
 - Competitive compounds
 - The “northern corridor”

Fertilizer prices remain very high, and volatile

Africa Fertilizer Price Trends



Source: Nov 4, 2022 bulletin, Afriqom.

CFR price: Cost and Freight - delivered to port, before unloading

- **N** - Urea prices are correcting sharply, but are still **2.5 times more expensive than in 2016-2020**
- **P** - Prices of phosphate fertilizers (DAP, MAP, TSP, NPK) are declining, but remain **expensive and difficult to source**
- **K** - Potash reached historic highs and is difficult to source. ECOWAS is largely dependent on Russia and Belarus (20 to 50% depending on the country). **Without K, blending plants are at a standstill.**

- Prices unlikely to return soon to pre-COVID levels
- Target: revert back or cap at USD500 (Sept 2021 levels)

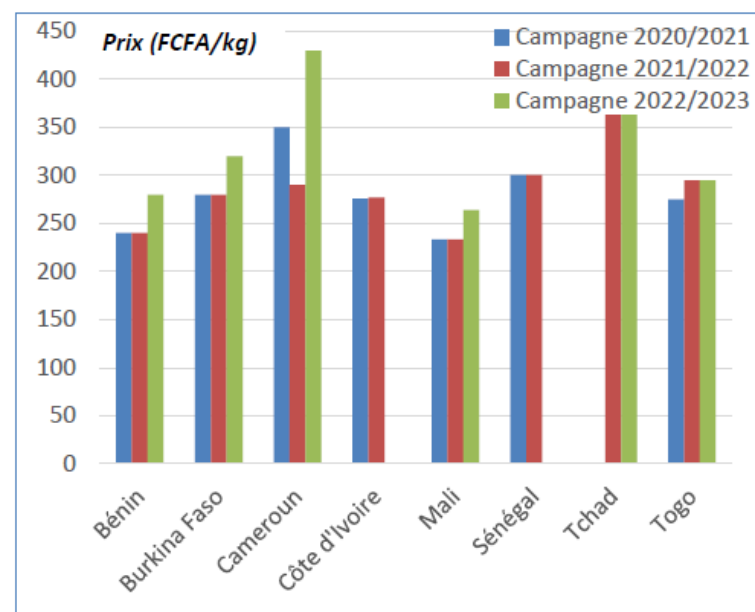
Fertilizer transfer prices 2022/2023 season

	Bénin	Burkina Faso	Cameroun	Côte d'Ivoire	Mali	Sénégal	Tchad	Togo
NPKSB (FCFA/kg)	280	320	430	277	264,2	300	363	295
UREA (FCFA/kg)	280	320	410	295	264,2	260	343	275

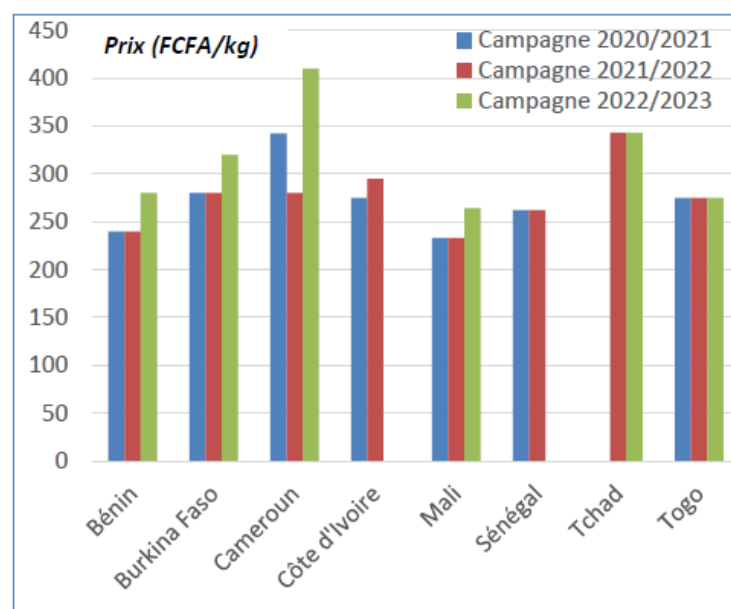
- Prices adjusted in
 - Benin +17%
 - Burkina +14%
 - Cameroon +48%
 - Mali +14%

- Prices unchanged
 - Chad
 - Cote d'Ivoire
 - Senegal
 - Togo

- From 62,500 FCFA/ha (\$95) in Mali to 106,500 F FCFA/ha (\$163) in Cameroon

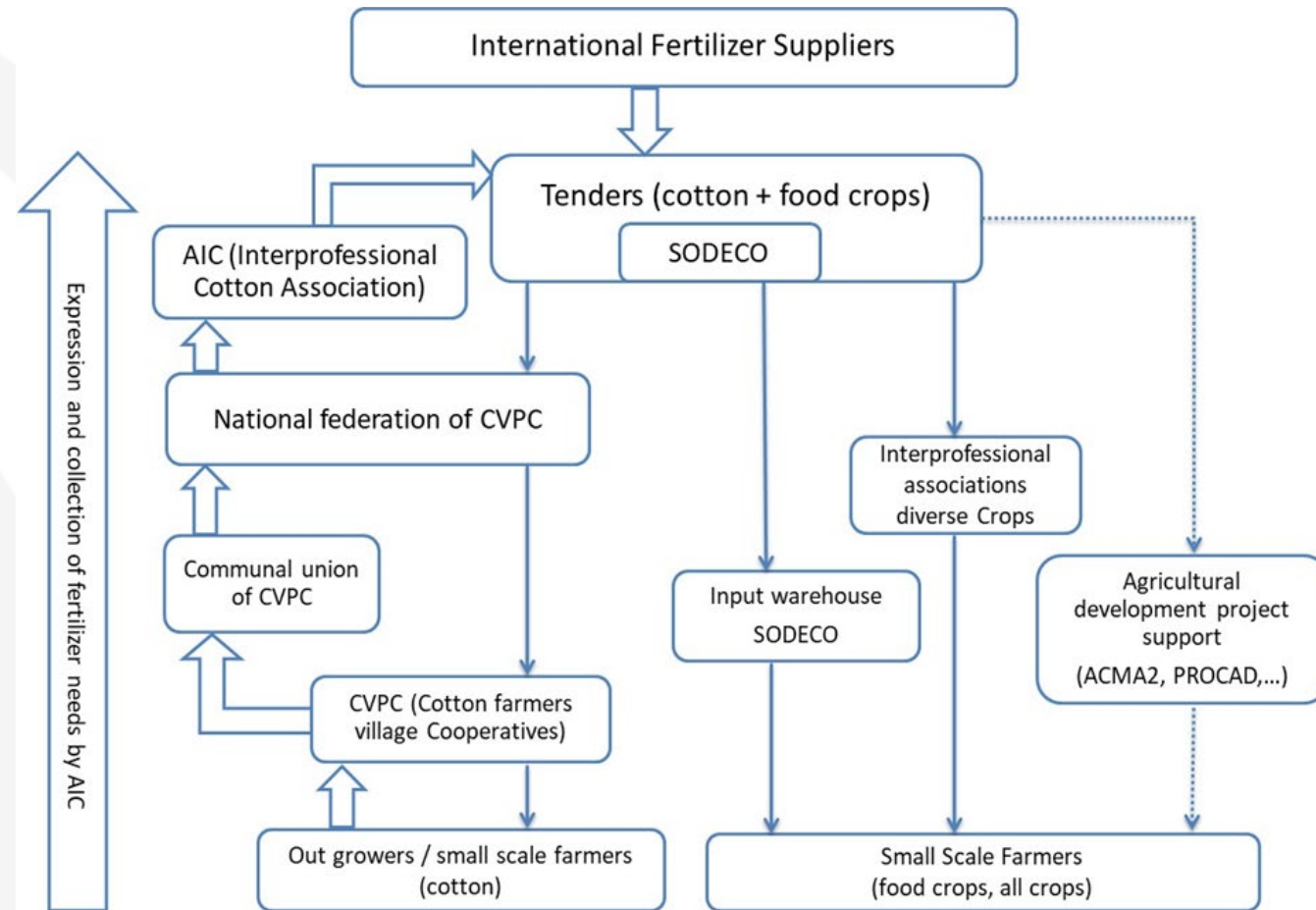


NPKSB transfer price (FCFA/Kg), 2020/2021, 2021/2022 and 2022/2023 cotton seasons



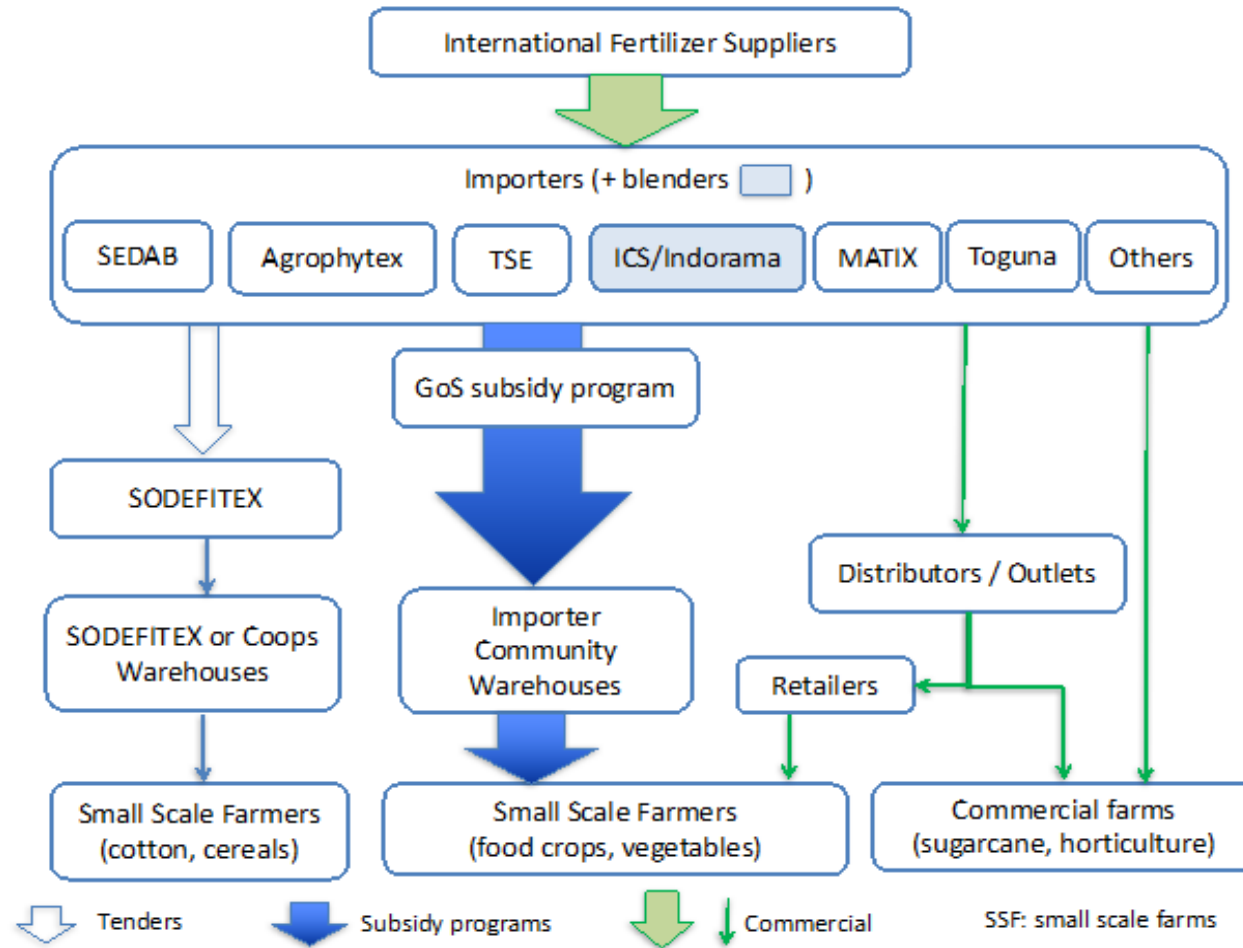
Urea transfer price (FCFA/Kg), 2020/2021, 2021/2022 and 2022/2023 cotton seasons

Procurements & distribution models - Benin



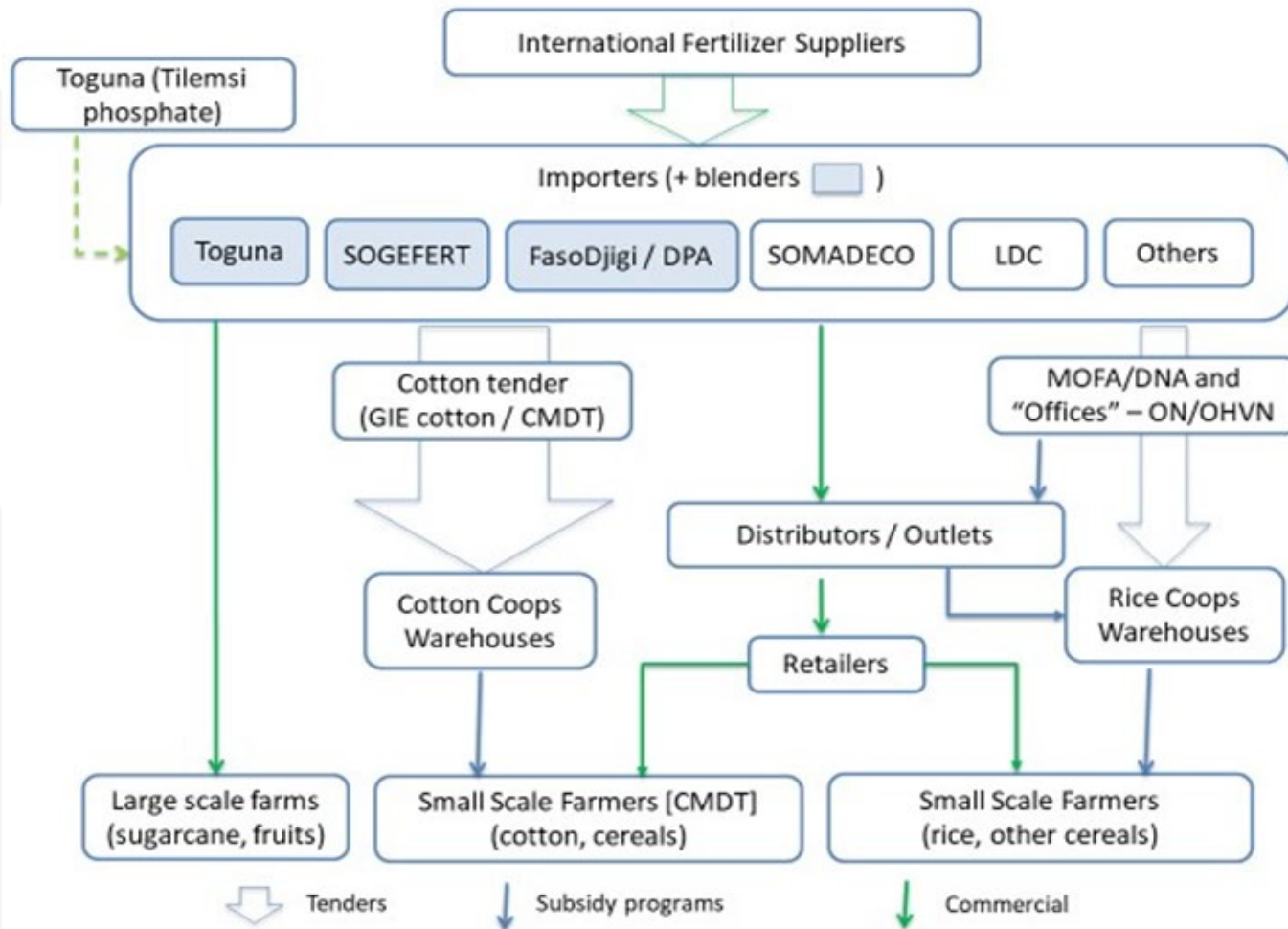
- Fully controlled by SODECO with AIC
 - Tender system
 - For cotton first, then for other crops
 - Compound NPKs preferred
- For 2022/2023
 - Supply secured on time
 - Prices adjusted
 - Trade restrictions

Procurements & distribution models - Senegal



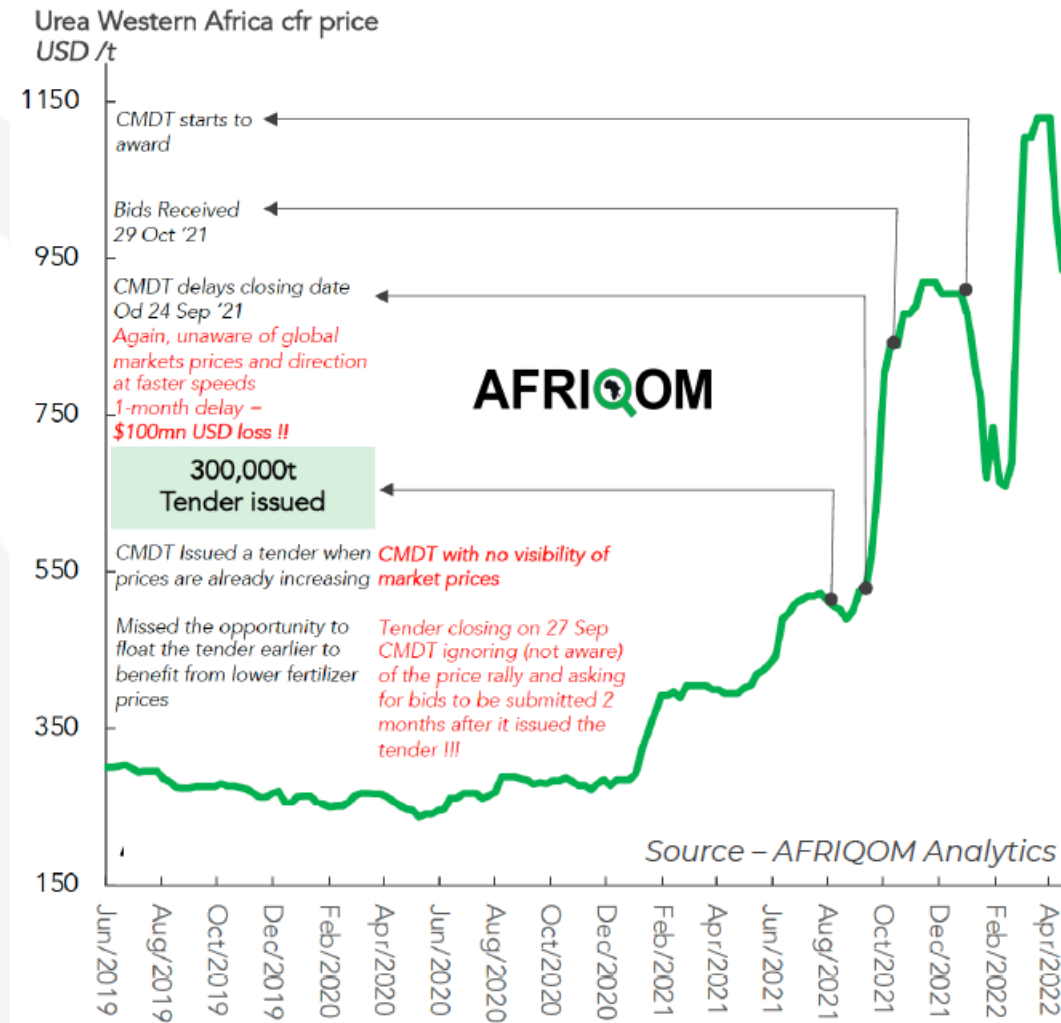
- Fully controlled by SODEFITEX
 - Tender system
 - For cotton producers only
 - Out of the main subsidy program
 - Local sourcing
- For 2022/2023
 - Supply secured locally
 - Prices adjusted

Procurements & distribution models - Mali



- by CMDT and GIE cotton
 - Tender system
 - Fertilizer for cotton and cereals
 - Supply through local blenders and importers
 - Distribution through farmers coops
- 2022/2023
 - Import restrictions (sanctions)
 - Supply not secured
 - Prices adjusted

Procurement challenges in crisis times – the Malian case



challenges	solutions
<p>1- Tender Issue Date: The timing when the tender is issued is fully disconnected from global market movements.</p> <p>In '21 (for '22 application) CMTD issued the tender in August while market prices have already gone through a rally.</p> <p>The disconnection from the market costs millions of USDs, and more concerning, demand destruction</p>	<p>1- Follow the market The tender issuer and the Government need to be in constant touch with the market, following market movement and able to strike at the right moment.</p> <p>The tender issue to communicate, bringing transparency to the market.</p>
<p>2- Tender Schedule: A wider period between key dates such as issue, closing and award dates hurts the performance of bidders and increases the price for the smallholder farmers by 100's of dollars</p>	<p>2- Reduce Time Schedule The tender dates should be well-timed (see 1) and should be close to each other to reduce risks of misalignment with global prices, risk of not securing supply and provide the best prices of the smallholder farmers</p>
<p>3- Bids Validity: The majority of tenders in Africa tend to request 90 to 120 bids' validity terms. This will only disrupt the process and with uncertainty, even in nonvolatile markets, will entice bidders to increase their price bids for risk management. The loser is the smallholder farmer</p>	<p>3- Reduce Bids Validity Terms Bids validity terms should be reduced to 1 week to promote competition and ensure market alignment based on the above (1) and (2)</p>

Bidders: in some tenders, bidding is only open to local firms.

Bidders: in some tenders (Mauritania is a good case for this), awards are automatically given to the lowest bidder. But in many cases, you have firms that have no idea of market prices and try their best, sometimes giving 100s of dollars below the next bid, disturbing the tender process. Then, when the time comes to deliver, they default!

Awards: in some tenders, awards are given to 100s of small firms, some of them are not even familiar with fertilizer. The large bidders will group demand from these small, awarded firms and this can be troublesome, time-wastingand sometimes even not give the power to large firms to secure financing as their official contracts is only the award they receive

What do we need to improve ?



Availability

- Procurement processes
- Trade Finance + risk sharing for importers & blenders
- Planning & forecasting



Affordability

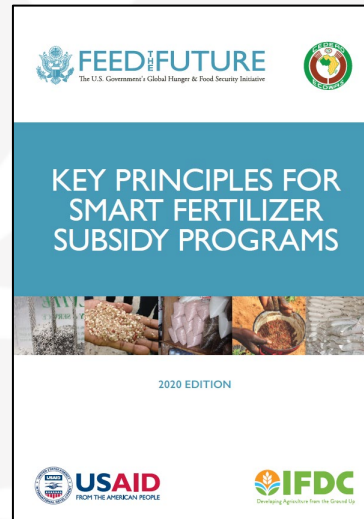
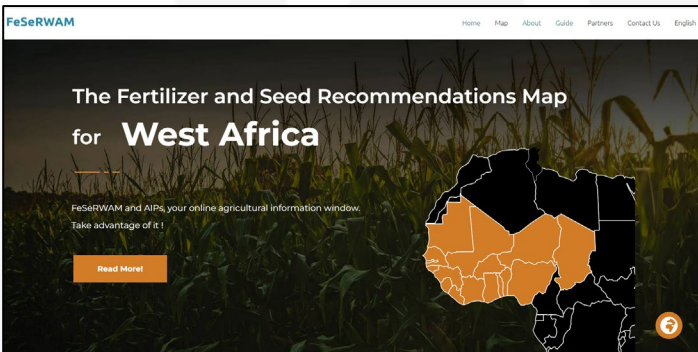
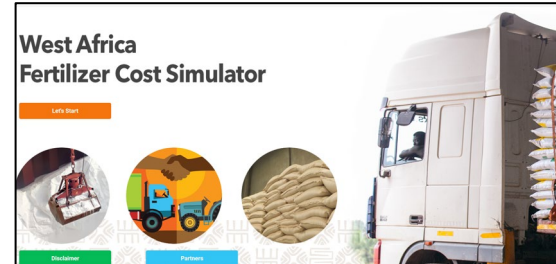
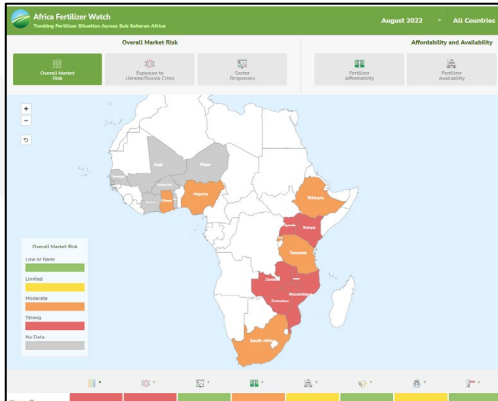
- Smart and targeted subsidy programs
- Exit strategy
- Adjusted fertilizer pricing



Nutrient use efficiency

- Smart fertilizers
- ISFM
- GAP
- Quality Control
- Soil Maps
- R&D, Extension
- Trainings, ICT

IFDC Resources



- [Africa Fertilizer Watch](#)
 - Assessing overall fertilizer market risks in SSA
 - Monthly updates
- [Fertilizer Business Information Guide](#)
 - Production capacities
 - Production, trade, consumption and price data
 - Logistics and costs
 - Policies, regulations, and quality control
- [Fertilizer and Seed Recommendations Map](#)
 - Over 800 agro-input packages covering 15 + 2 countries
 - Aims at increasing productivity and nutrient use efficiency
- [Fertilizer Cost Simulator](#)
 - Costing of raw materials, straight or blended fertilizers
 - Along all major trade corridors serving West Africa
- [Smart Fertilizer Subsidy Programs Guide](#)
 - 13 guiding principles, 36 actions
 - Implementation matrix tracked in 15 countries
 - Trainings and technical assistance to national governments



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



Photo by Ferruccio Alfregoni



WEST AFRICA FERTILIZER BUSINESS INFORMATION GUIDE

2022 EDITION



Sources:

- PR PICA
- AfricaFertilizer.org
- Afriqom
- Feed the Future EnGRAIS project
- OECD Club du Sahel

