



Fertilizer Markets: Extending the Frontiers

By

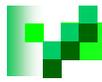
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Road Map

- **Livelihoods, markets, and fertilizer**
- **Why a focus on fertilizer markets?**
- **Dealing with the “frontier”**
 - **Why it is an issue**
 - **Different views of what the frontier is**
 - **How it can be extended (in theory)**
 - **How it is being extended (in reality)**
- **The Fertilizer Policy Toolkit**



Livelihoods - markets - fertilizer

- **Agriculture = rural livelihood in Africa**
- **Agricultural growth is pro-poor**
- **Growth requires better productivity**
- **Technology drives productivity growth**
- **Technology adoption requires markets**
- **Fertilizer is a proven technology**



Why focus on fertilizer markets?

- **Fertilizer use/ha is low and stagnant**
- **Nutrient depletion is high and growing**
- **Cereal yields are low and stagnant**
- **Fertilizer can improve the situation**
 - **Excellent potential for maize and rice**
 - **Fair potential for sorghum**
 - **Variable for export and cash crops**



Why are “frontiers” an issue?

- Dissatisfaction with 20 years of reforms
- Millennium Development Goals and poverty
- Exaggerated exuberance about fertilizer
 - MD Goals
 - MD Villages
 - Fertilizer summit



What is the “frontier”?

- Simple concepts mask complex realities
- On the surface: the frontier is the geographic limit of the current fertilizer supply system
- Under the surface: the frontier is the complex interplay of technological, economic, political, and social factors that shape fertilizer demand and supply



To extend the frontier...

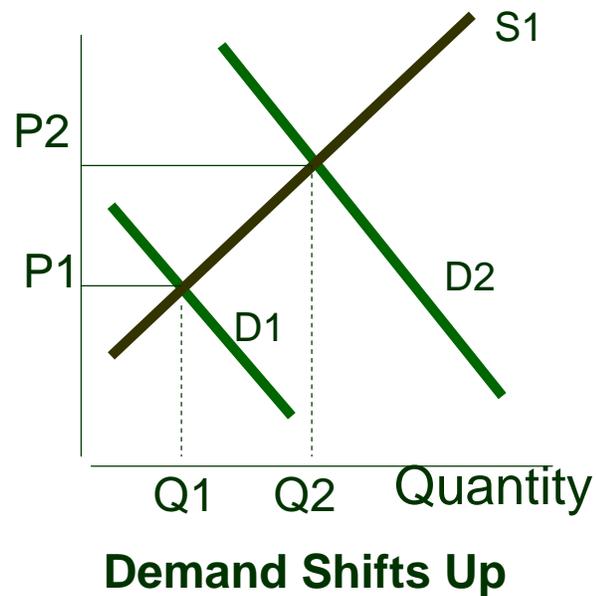
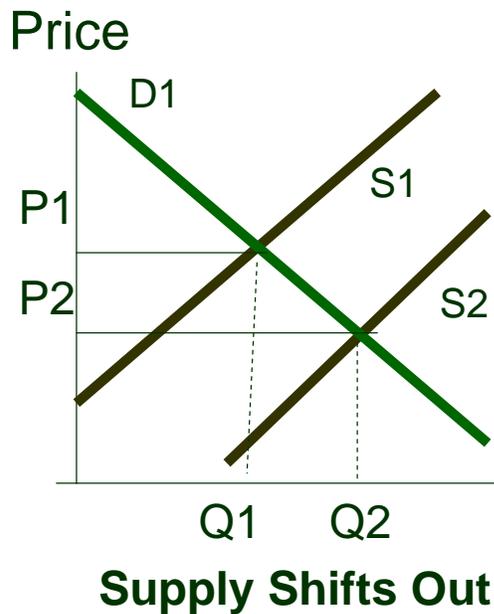
- Create an enabling environment
- Stimulate commercial supply
- Stimulate effective demand



Enabling environment requires

- Finance systems that provide...
 - Credit at all levels of the system
 - Foreign exchange for importers
- Human capital development for...
 - Farmers, traders, and their organizations
 - Business and technical knowledge and skills
- Policies that..
 - Promote investment in public goods
 - Minimize uncertainty for private investors
- Regulatory mechanisms that...
 - Protect all against poor quality products
 - Protect those who follow rules from those who don't
- Market information that informs about...
 - Input and output prices
 - Product flows

Both Demand and Supply Can Move the 'Frontier' Out

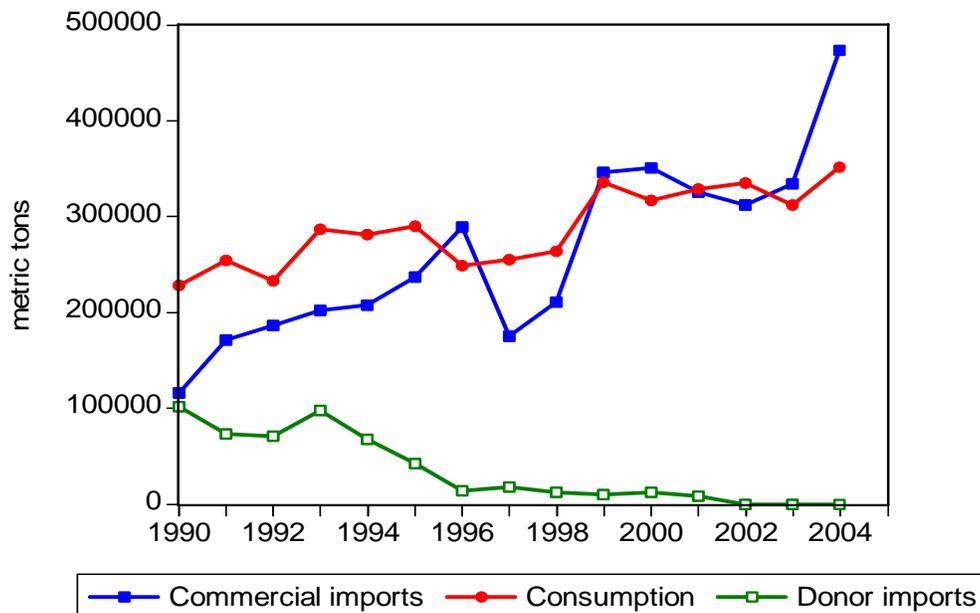


Emerging lessons

- A combination of market and non-market approaches is common
- Difficult to assess impacts
- Emerging lessons
 - Inter-linked input/output markets help
 - Farmer education and training is important
 - Contribution of subsidy programs not clear
 - Private sector led approach has had good results in Kenya

The Kenyan Experience

- Slow, steady growth in **commercial imports** and **consumption** 1990-2004



The Kenyan Experience

- Increases in the **kilograms of fertilizer applied per hectare** for key crops

Crop	1995/96	2003/04
Tea	326	387
Sugar	115*	142
Mono-crop Maize	59	67
Inter-cropped Maize	58	102

*1996/97



The Kenyan Experience

- Increase in **percent of farmers using**

Region	1995/96	2003/04
Coastal Lowlands	2%	6%
Western Lowlands	2%	8%
Marginal Rain Shadow	12%	27%
Eastern Lowlands	19%	46%
Western Transitional	29%	61%
Western Highlands	52%	74%
High Potential Maize	67%	90%
Central Highlands	63%	93%



The Kenyan Experience: Why 1

- **Supportive government policy**
 - Import licensing quotas eliminated
 - Price and foreign exchange controls eliminated
 - Restrictions on package size relaxed
 - No large subsidy or distribution programs
- **Private sector responded**
 - 3 major and 7 contributing importers
 - 500 wholesalers and 3000 to 7000 retailers
 - Farm-to-retailer distance down (8 to 4 kms)
 - Fertilizer sold in small packs (1, 5, 10 kg)
 - 60% decline in port to consumer margins



The Kenyan Experience: Why 2

- **Supportive donor/NGO programs working on both D and S issues**
 - **Building agro-dealer networks**
 - **Stockist training**
 - **Credit guarantees**
 - **Developing value chains**
 - **Input/output links for credit**
 - **Collateralization of stocks for market timing**
 - **Public/private extension partnerships**
 - **Focus on medium to high potential areas**



Looking ahead in Kenya

- **Private sector is committed, investing, and slowly expanding to new markets**
- **GOK not happy about some indicators**
 - **Aggregate maize production declining**
 - **Aggregate maize yields declining**
 - **Prevalence of poverty still very high**
- **GOK's approach is to increase intervention**
 - **Cereal's board imports/distribution**
 - **Plans to revive agricultural parastatals**
 - **Talk of major subsidy program**

Is there a better way?

- **Perhaps: The Fertilizer Policy Toolkit**
- **CD-based decision tool being developed by the World Bank**
- **Designed to help policy makers and program designers select appropriate interventions to expand the frontiers of input markets**

Fertilizer Toolkit

Promoting Efficient and Sustainable Fertilizer Use in Africa



Welcome!

This Toolkit is an interactive guide to assist you evaluate if a fertilizer promotion program would be an appropriate tool for meeting either welfare or economic growth objectives and, if so, design the type of program that would be most appropriate in a given context.



Help



Key toolkit messages

- **Have a well-defined goal and target group**
- **Make sure that ...**
 - **Fertilizer is appropriate for goal and target**
 - **Both demand and supply are addressed**
- **If non-market intervention is needed, use market-friendly approaches such as**
 - **Demonstration packs**
 - **Input vouchers**
 - **Matching grants**
 - **Loan guarantees**



Toolkit best practices

- **Integrate fertilizer into a broad ag strategy**
- **Favor market-based solutions**
- **Balance competition & economies of size**
- **Pay attention to demand**
- **Insist on economic efficiency**
- **Empower farmers**
- **Ensure sustainability and exit strategy**
- **Pursue regional integration**
- **Promote pro-poor growth**



The End

Before Fertilizer & improved seed



After fertilizer & improved seed

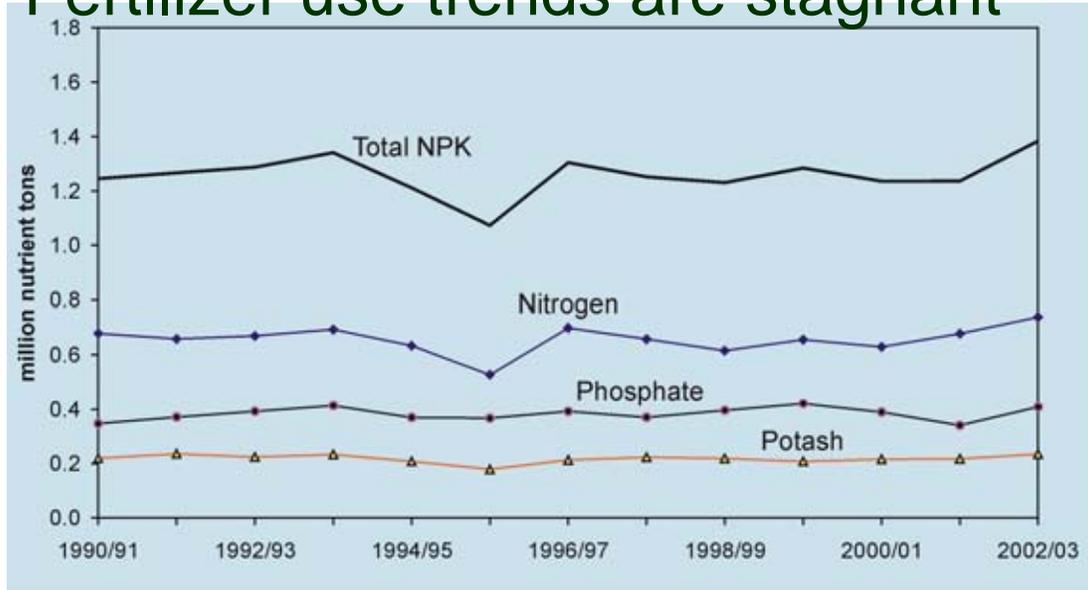
FIPS-Africa Photo



Supplementary graphs/figures



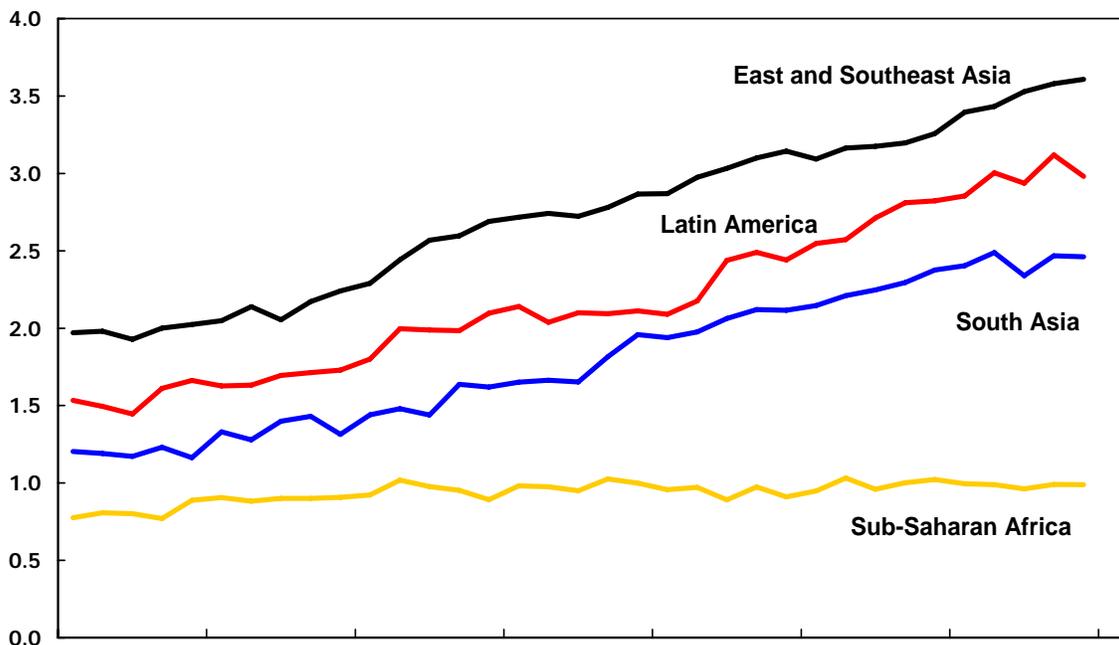
Fertilizer use trends are stagnant

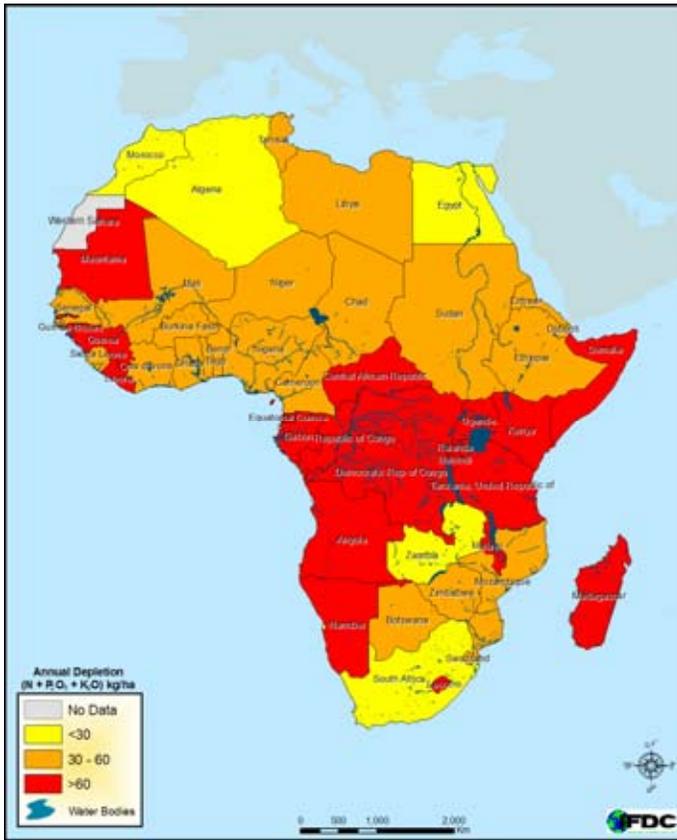


Sub-Saharan Africa: Nitrogen, Phosphate, Potash, and Total NPK Consumption, 1990/91 - 2002/03



Cereal yields are low and stagnant





Plant nutrient depletion is very high



Marketing margins decline

