



***Achieving an
African Green Revolution: AGRA and the
Fertilizer Procurement Program***

Andre Bationo

Africa is largely known for....

Poverty

Civil strife

Crop failure

Poor and depleted resources

Drought

Poor governance

HIV/AIDS

No Green Revolution benefits

Malnutrition

Low agricultural export value

Rare Celebrations



Introduction

3

Effect of global price increases on import costs, SSA

	2005	2006	2007	2008*	Increase 2007 to 2008
	(US\$ billion)				
Rice	1.82	1.94	2.07	5.76	278 %
Maize	0.57	0.71	9.49	14.3	151 %
Wheat	2.09	2.63	3.49	4.96	142 %
Fertilizer	1.30	1.33	1.90	3.69	194 %
TOTAL	5.78	6.61	16.98	28.71	169 %

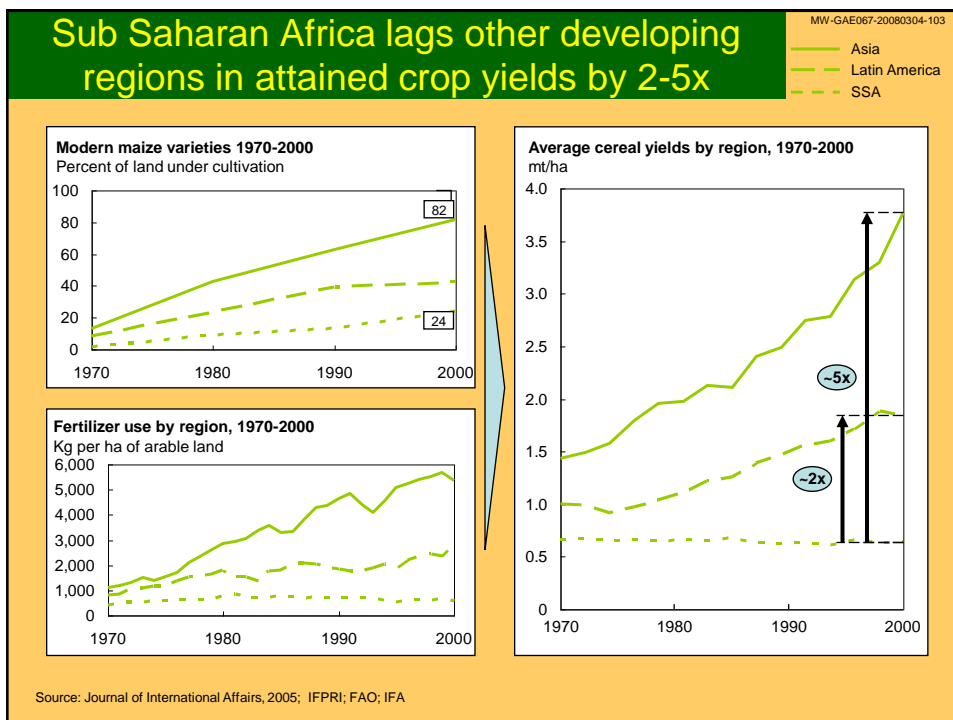
Note: Physical quantities of imports held constant across all years

Land degradation

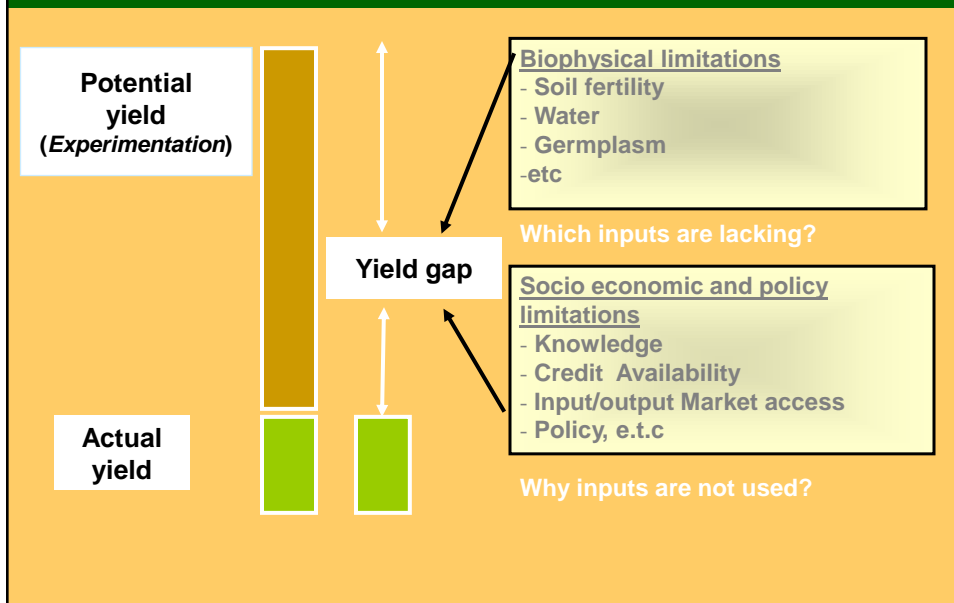
- Africa loses equivalent of \$4b per year due to soil nutrient mining
- An estimated \$42b in income is lost and 6 million hectares of productive land threatened every year due to land degradation
- Despite about U\$ 20b of commercial imports and U\$ 2b of food aid, 26% of the people are undernourished
- Unsustainable soils for crop production occupy 55%, Prime 9.6%, high potential 6.7% and medium and low potential 28.3%

Introduction

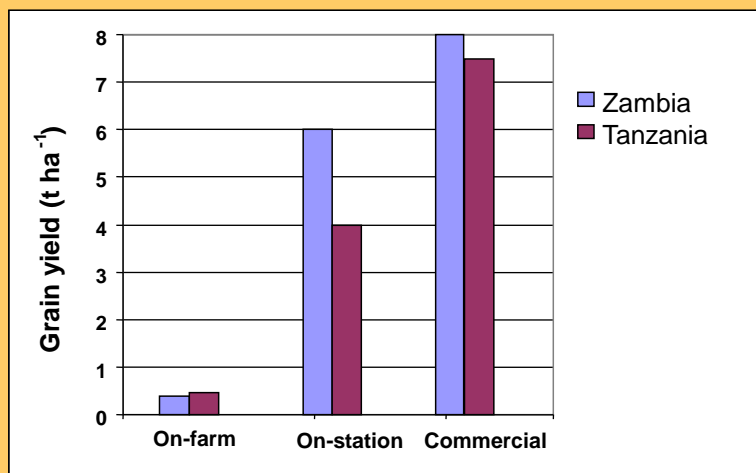
5



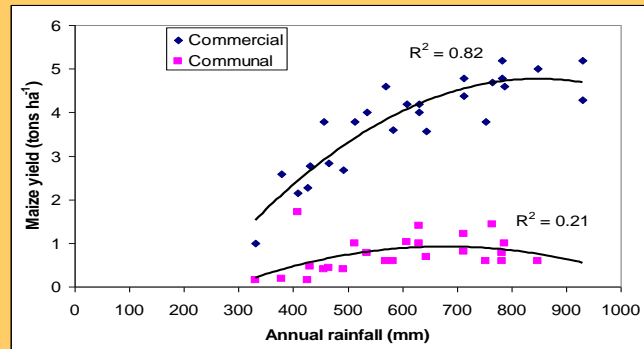
The yield gap and the limitations that cause it



The Yield Gap: Some observations from sub-Saharan Africa



Effect of long term rainfall distribution on maize yield in Zimbabwe



Soil fertility improvement offers great potential for farmers to adapt to climate change

Paradigm shift

9

What is AGRA?

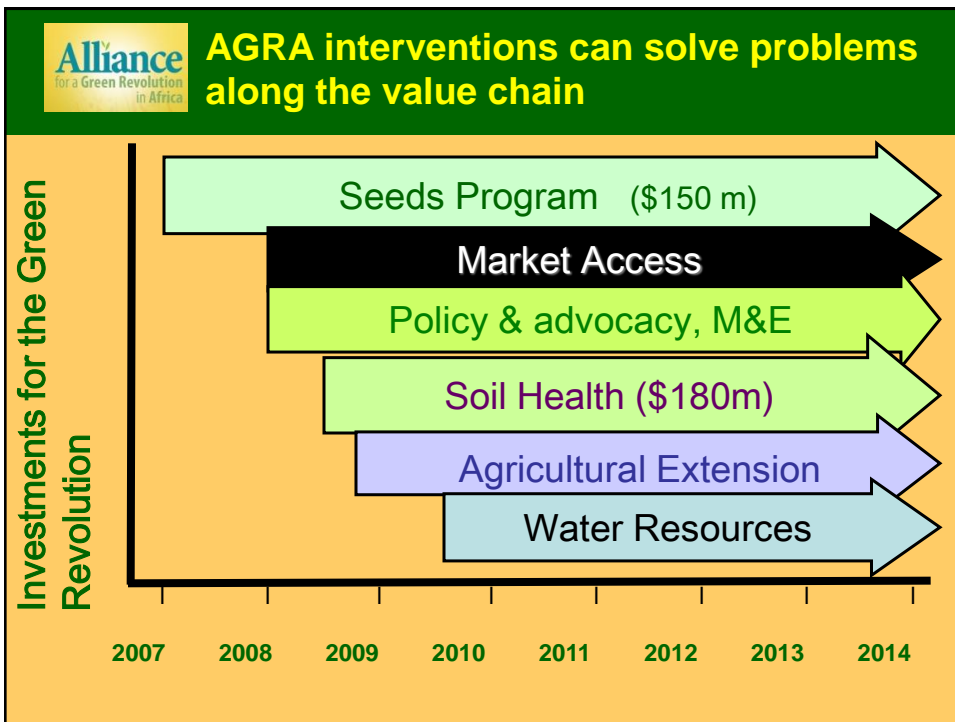
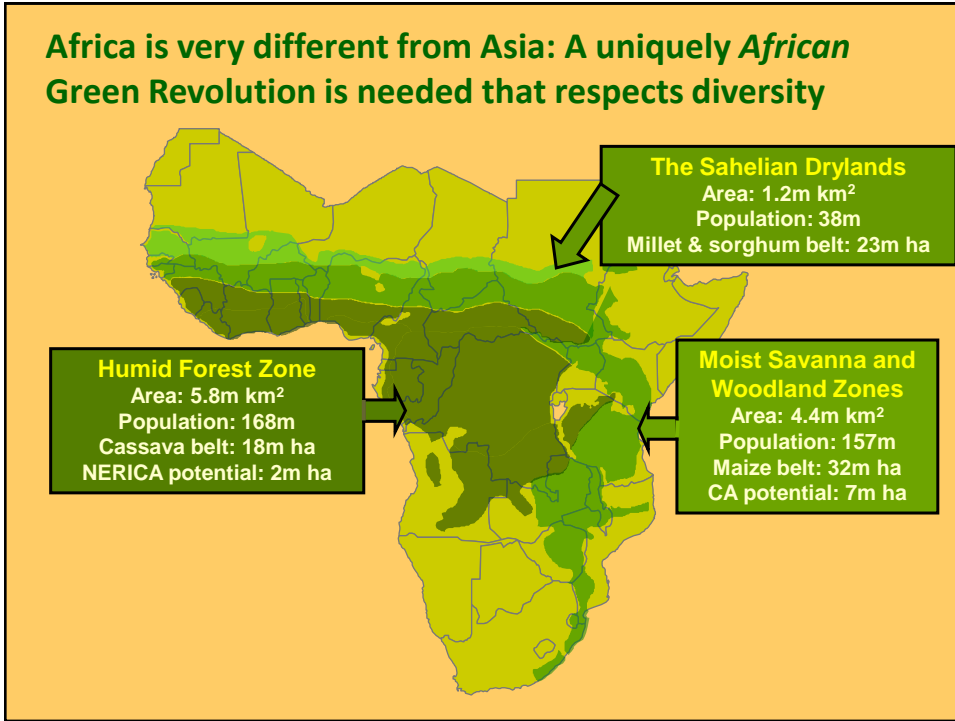
A dynamic partnership working across Africa to help millions of small-scale farming families lift themselves out of poverty and hunger.

Mr. Kofi A Annan, Chairman of AGRA



AGRA seeks to develop practical solutions to significantly boost farm productivity and incomes for the poor while safeguarding the environment







Program for Africa's Seed Systems (PASS)

The first and catalytic initiative of AGRA, PASS consists of 4 sub-programs:

1. Education for African Crop Improvement
2. Improvement and Adoption of African Crops
3. Seed Production for Africa
4. Agro-Dealer Development Program

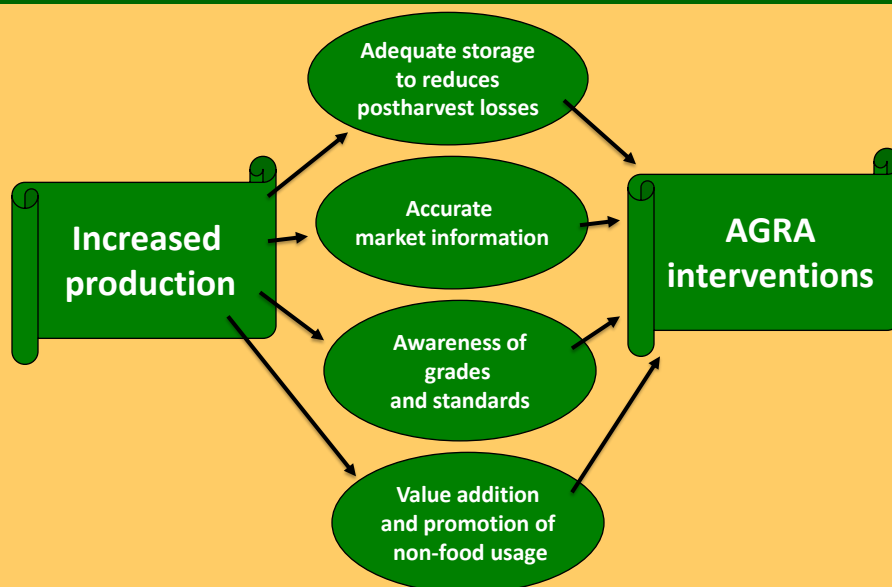


Market Access Program

The program's global objective: Build efficient and well-integrated input markets through which farmers can buy supplies and output markets that enable farmers to sell their harvest in order to encourage farmers to adopt sustainable agricultural technologies.



Market access for farmers



Policies and Partnerships Program

Policies for rapid transformation of Africa's agriculture

- Accelerate investment in research and rural infrastructure
- Smart subsidies for farm inputs ('growth enhancement credits')



- Develop networks of agrodealers across rural areas
- Secure national food supplies

Turning point on hunger in Africa: Malawi feeds a hungry nation

- 2005/06: \$50m subsidy distributed by the government
- 2006/07: \$60m “smart subsidies” allotted to farmers
- 2006/07: Private sector distributed inputs for the first time

Private sector sold \$25m of seeds and fertilizers

A Malawian Green Revolution

400,000 MT surplus in 2005/06

900,000 MT surplus in 2007

Exports \$ 160 million of maize

Donates 10,000 MT of maize to Lesotho and Swaziland!

Microdose Technology- Turning the Sahel from Grey to Green



4 kg P per ha
with millet seed

**‘Coke Cap’
Microdosing**

Alliance
for a Green Revolution
in Africa

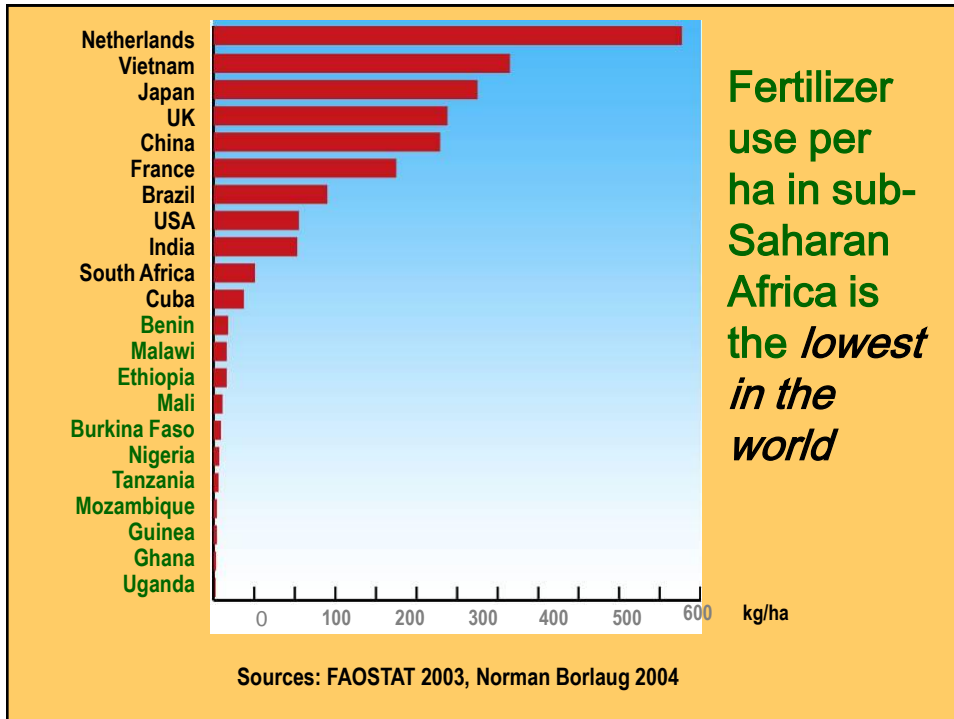
Soil Health Program

A photograph showing three women in traditional African clothing, including headwraps and patterned skirts, working in a field. They are using long-handled hoes to till the dark red soil. The background shows a rural landscape with some trees and a fence.

Alliance
for a Green Revolution
in Africa

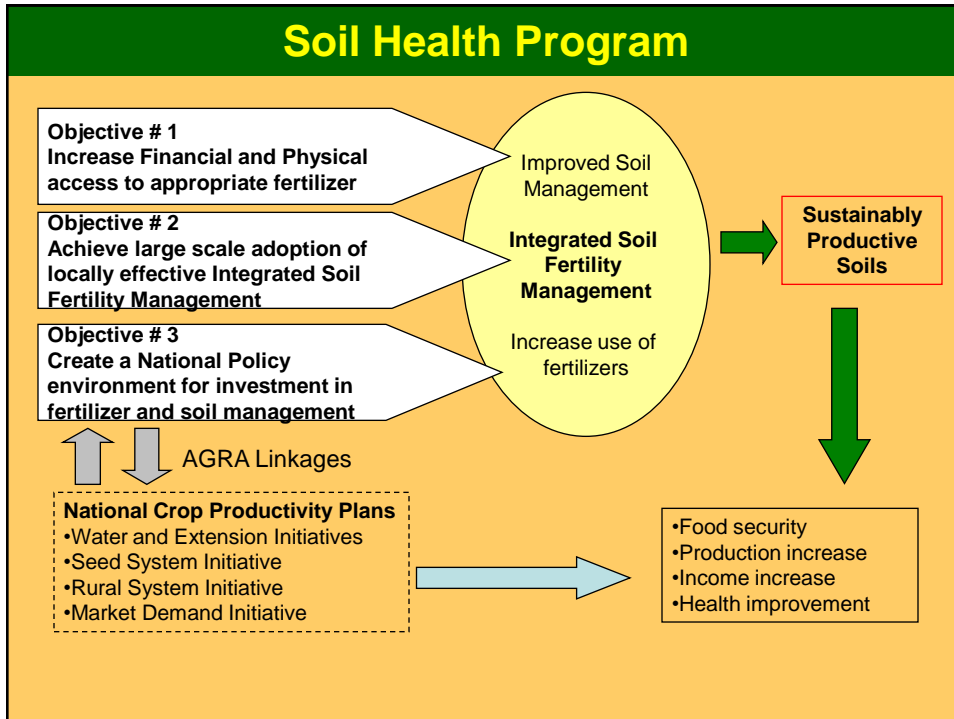
Advances in crop improvement could trigger the Africa Green Revolution...BUT

A photograph of a woman wearing a blue t-shirt and a black headwrap with a blue patterned bandana. She is standing in a cornfield, holding a corn cob and examining it closely. The field is filled with tall corn plants with green leaves and some yellowing husks.



Opportunities and leverage points for increasing soil health

1. Support the fertilizer distribution channel
2. Promote fertilizer use and improved soil management at large scale
3. Advocate and provide knowledge and technical support for policy change that improves fertilizer procurement
4. Transfer knowledge to farmers
5. Improve technologies and data resources for soil health management and train and network the next generation of soil scientists



SHP Sub-Programs

3. Soil health research sub-program (SHRP)

- Focuses on supporting the development, adaptation and fine-tuning of ISFM technologies

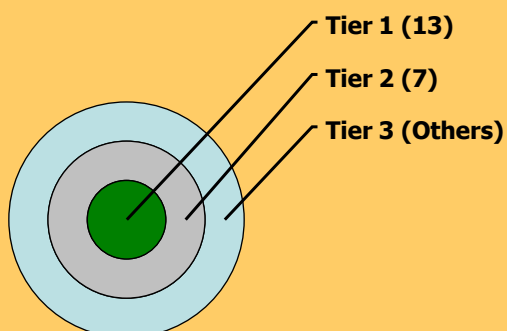
4. Soil health extension sub-program (SHEP)

- Focuses on scaling up ISFM technological packages to thousands of farmers

Country engagement strategy: The 3-Tier Approach

Tier 1:

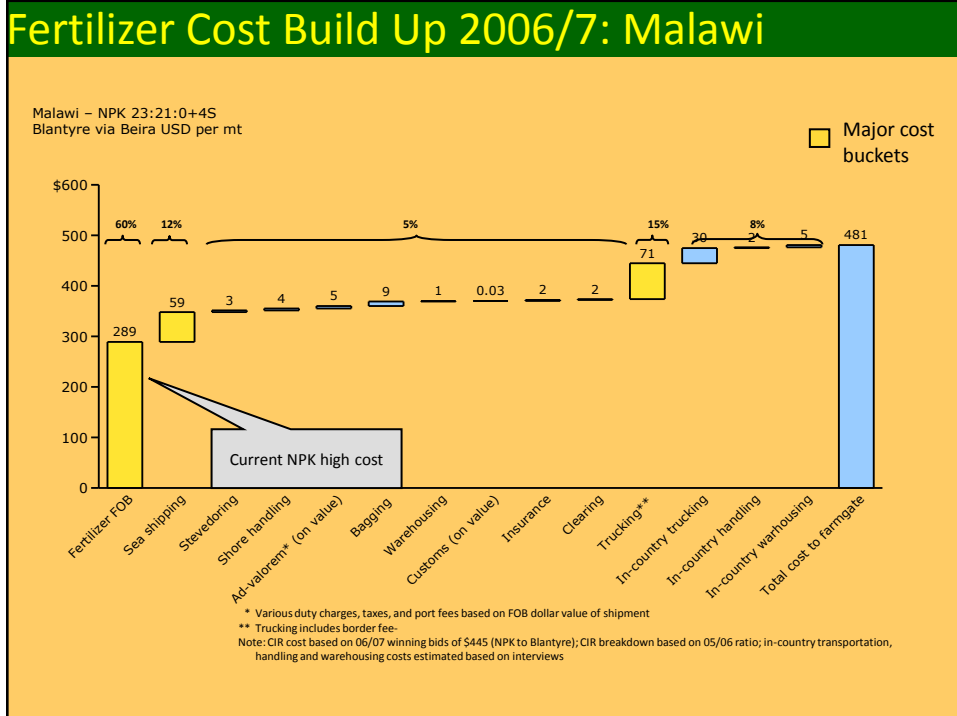
- Kenya, Uganda, Tanzania, Ethiopia, Rwanda
- Burkina Faso, Ghana, Mali, Nigeria, Niger
- Malawi, Zambia, Mozambique



Tier 2:

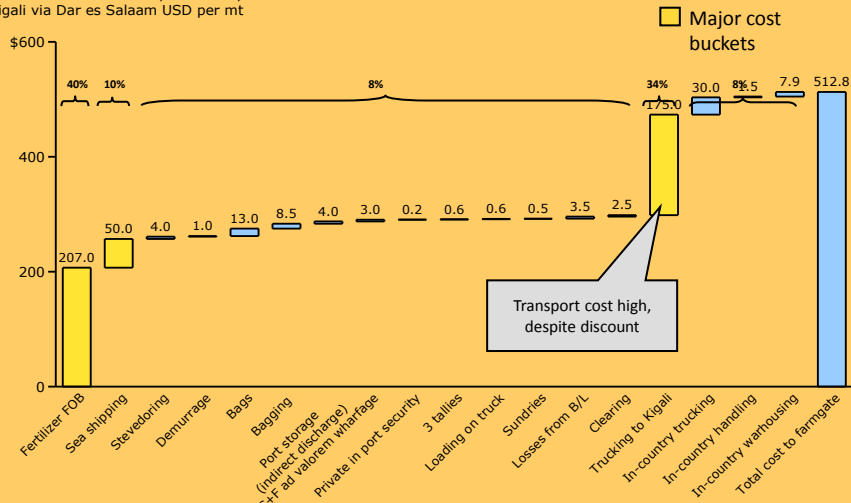
Cameroon; Senegal; Sierra Leone, Cote d'Ivoire, Madagascar, Benin and the Democratic Republic of Congo

The Africa Fertilizer Financing Mechanism (AFFM)



Fertilizer Cost Build Up 2006/7: Rwanda

Rwanda - NPK 25:05:05, Black Sea, Russia to Kigali via Dar es Salaam USD per mt



Note: CIR cost based on 05/06; downstream costs estimated based on interviews; NPK 25.05.05 accounted for ~47% of volume

31

Lack of Infrastructure Is Killing Africa



Kilometers of paved roads per million people in selected countries

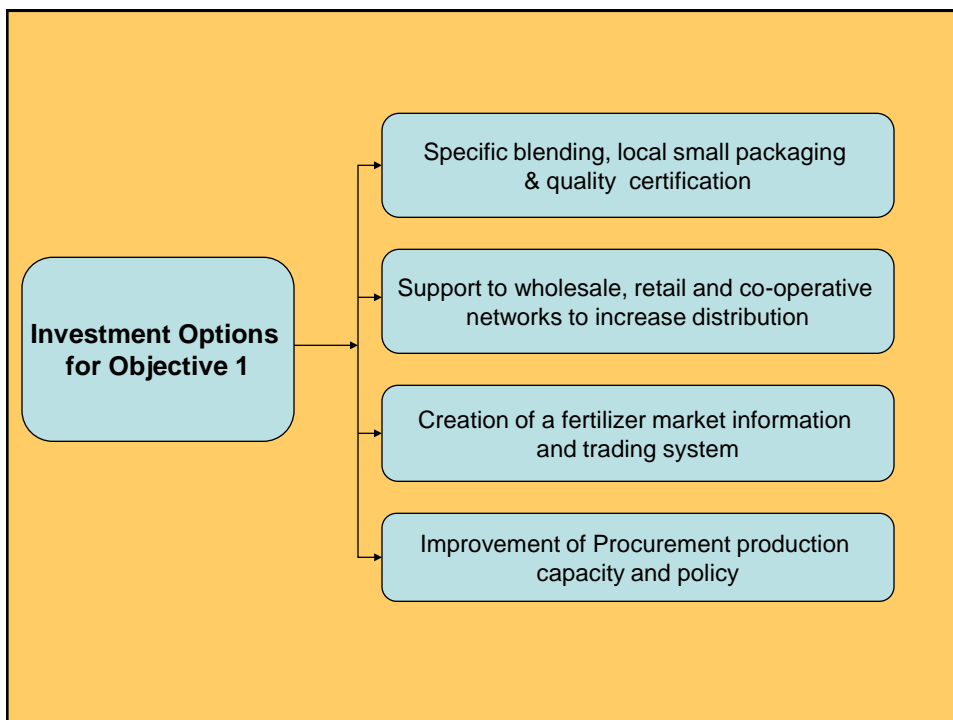
	Km		Km
USA	20,987	Guinea	637
France	12,673	Ghana	494
Japan	9,102	Nigeria	230
Zimbabwe	1,586	Mozambique	141
South Africa	1,402	Tanzania	114
Brazil	1,064	Uganda	94
India	1,004	Ethiopia	66
China	803	Congo, DR	59

Source: Encyclopedia Britannica, 2003

Increase financial and physical access to appropriate fertilizer

Goals

- Development of the fertilizer supply chain
- Improvement by 20% of fertilizer agronomic efficiency
- Package at affordable cost
- Price reduction at the farm gate by 15%



The Africa Fertilizer Financing Mechanism (AFFM)

- AGRA is partnering with the AfDB and other stakeholders to roll out the implementation of the AFFM
- Various consultations have been ongoing on how to develop the **African Regional Fertilizer Procurement Facility (ARFPF)**

Activities of the AFFM

- Developing policy instruments
- Building capacity in soil fertility and research
- Developing Africa's fertilizer blending and manufacturing capacity
- Providing credit guarantees
- Regional fertilizer facilities
- Organizational activities-coordination and linkages among public and private partners

African Regional Fertilizer Procurement Facility (ARFPF)

-
- **Objective:**
 - To review the status of plans for the East and Southern Africa Consultation Meeting on the establishment of African Regional Fertilizer Procurement Facility (ARFPF)
 - This meeting was to be held in Nairobi, Kenya on the 23 of February 2009 but has been postponed till April
 - Planning for a similar meeting for the West Africa region

The Expected Output of these meetings

- The Ministers will be expected to reach agreement on the organization structure and the modality of operation of the an African Regional Fertilizer Procurement Facility (ARFPF)

African Regional Fertilizer Procurement and Distribution Facility Models

- Following consultancies, 4 models for the ARFPF have been proposed
- Two examples are presented here:
 - Modified Petroleum Distribution Model *by Fela Aromolaran*
 - Africa Fertilizer Procurement Facility (AFPF): Phase 1: East Africa *by KaiZen Innovation, LLC, USA*

Modified Petroleum Distribution Model

By

Fela Aromolaran

Africa Fertilizer Procurement Facility (AFPF): Phase 1: East Africa

By

KaiZen Innovation, LLC, USA

Local Production

- Small Scale Dry Blending At Regional Centers And Close To Farm Gates
- Regional Dry Blending
- Compact Blending
- Compound Blending
- Using Africa's Mineral Deposits
- Full Fledged Manufacturing In Africa

**A better, more secure future:
A new, efficient, dynamic and competitive agricultural
sector will unlock hope for millions of children!**



**The paradox of markets in rural Africa:
“We don’t want Coca Cola, we are looking
for seeds and fertilizers”**





Thank you