Input Delivery in the Seed value Chain: Role of Government to Support Private Sector

George Bigirwa
Senior Program Officer
AGRA, Nairobi, Kenya

Key Inputs

Seed

Fertilizers

Pesticides

- Government involvement is mostly in the first two which occasionally become political and their scarcity can bring down governments
- This saw many governments setting up seed companies which were privatized, disbanded or reformed with much reduced roles in seed business
- With regard to fertilizers and pesticides, governments have Boards handling the 2 items

AGRA's Role in the Input Delivery

- Considers inputs as key ingredients in the attainment of a GR in Africa
- Seed and Fertilizer
- Exemplified by its key full fledged programs
- Program for Africa Seed Systems (PASS)
- Soil Health Program (SHP)
- But for these to function well there must be market for the produce, policies ought to be right and funding is a key ingredient hence the Market & Policy/Innovative Finance Programs.

AGRA Support: in the 2 main inputs

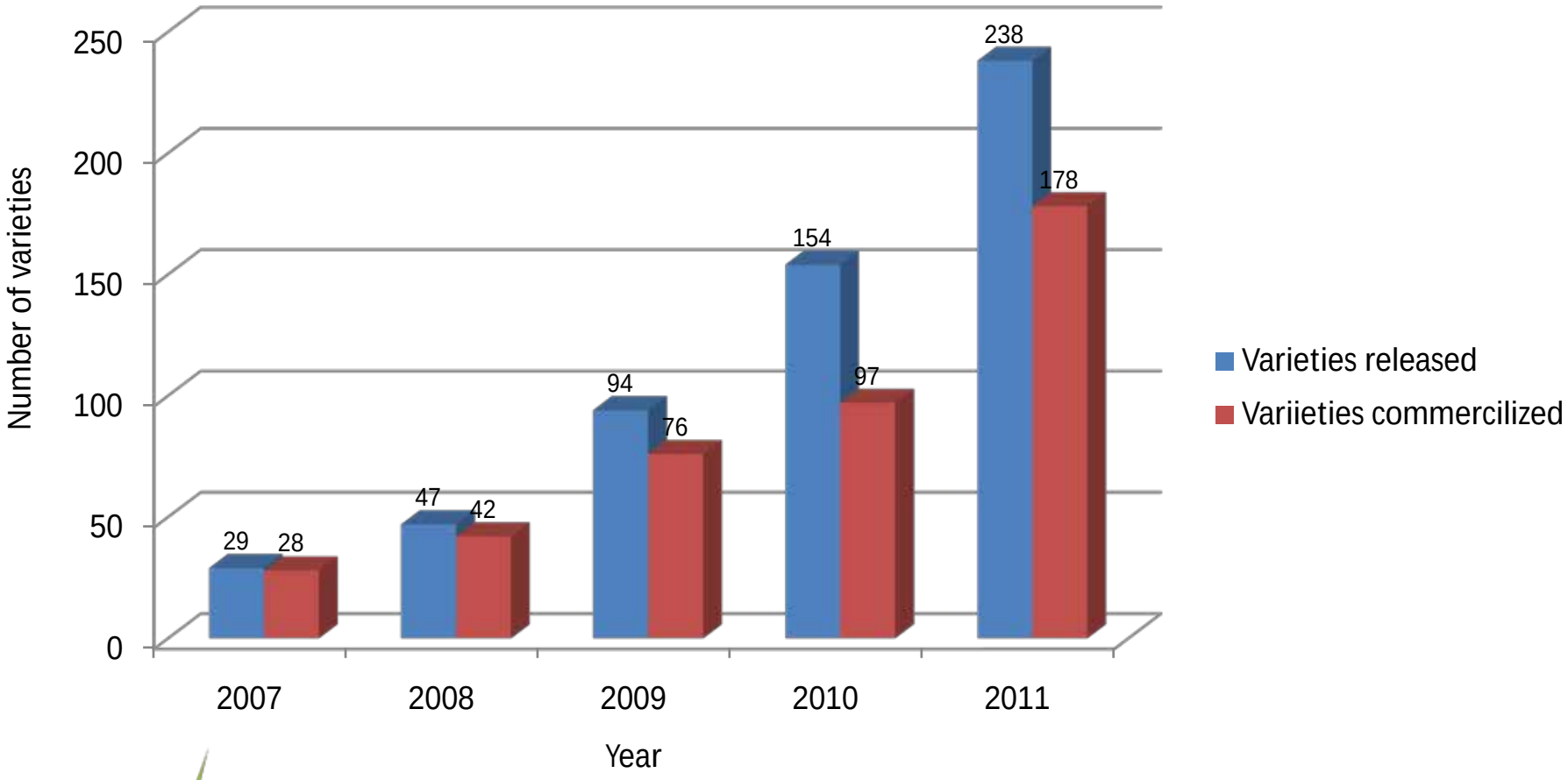
Seed Program

- - Training scientists (breeders and seed technologists) Public
- - Support national research systems to develop new varieties and also produce breeder & foundation seed. Public
- - Seed Companies (grants, loans, training, consultants. Private sector/Public
- - Agro-dealers (training, loan facilities, linkage to input suppliers) Private sector

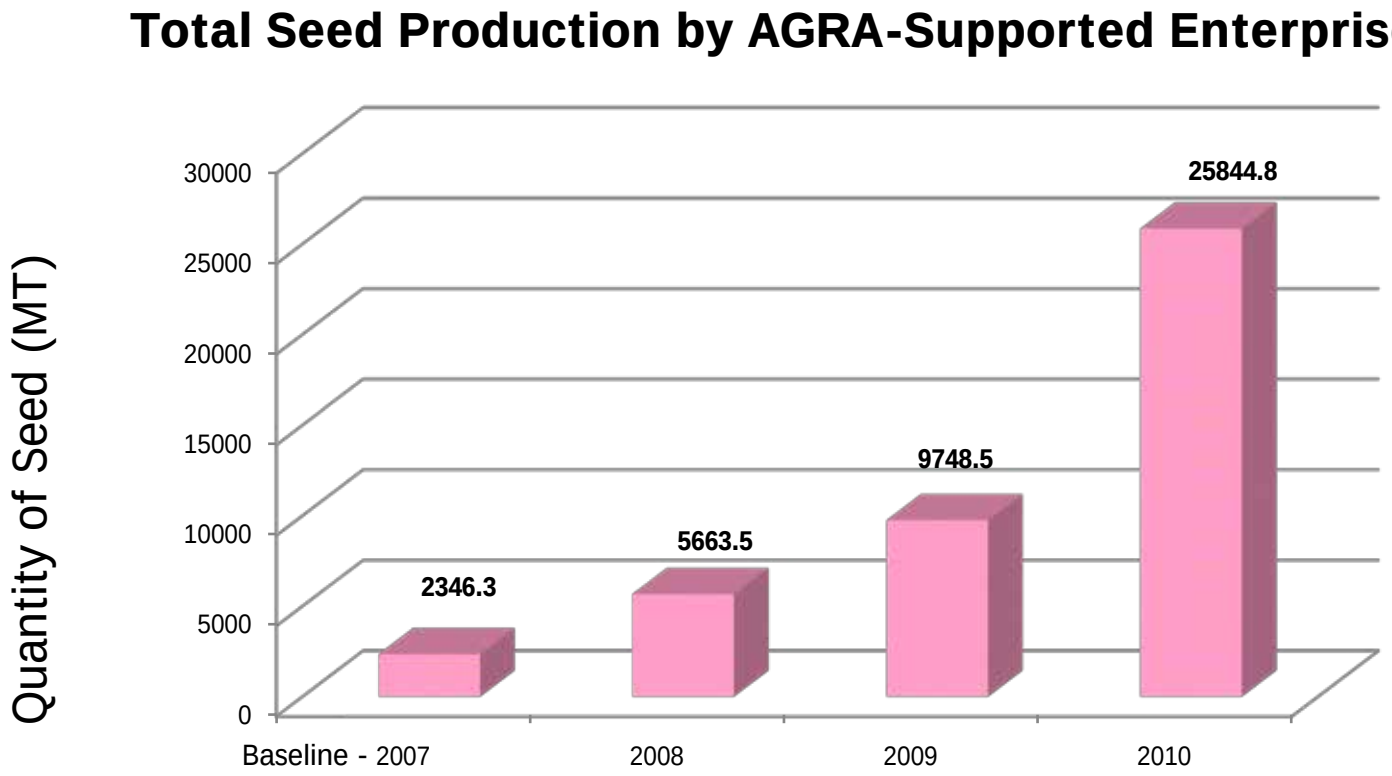
Soil Health Program

- Fertilizer procurement. Public & Private
- Integrated soil fertility management options Public & Private
- Soil mapping, testing and fertilizer recommendations. Public

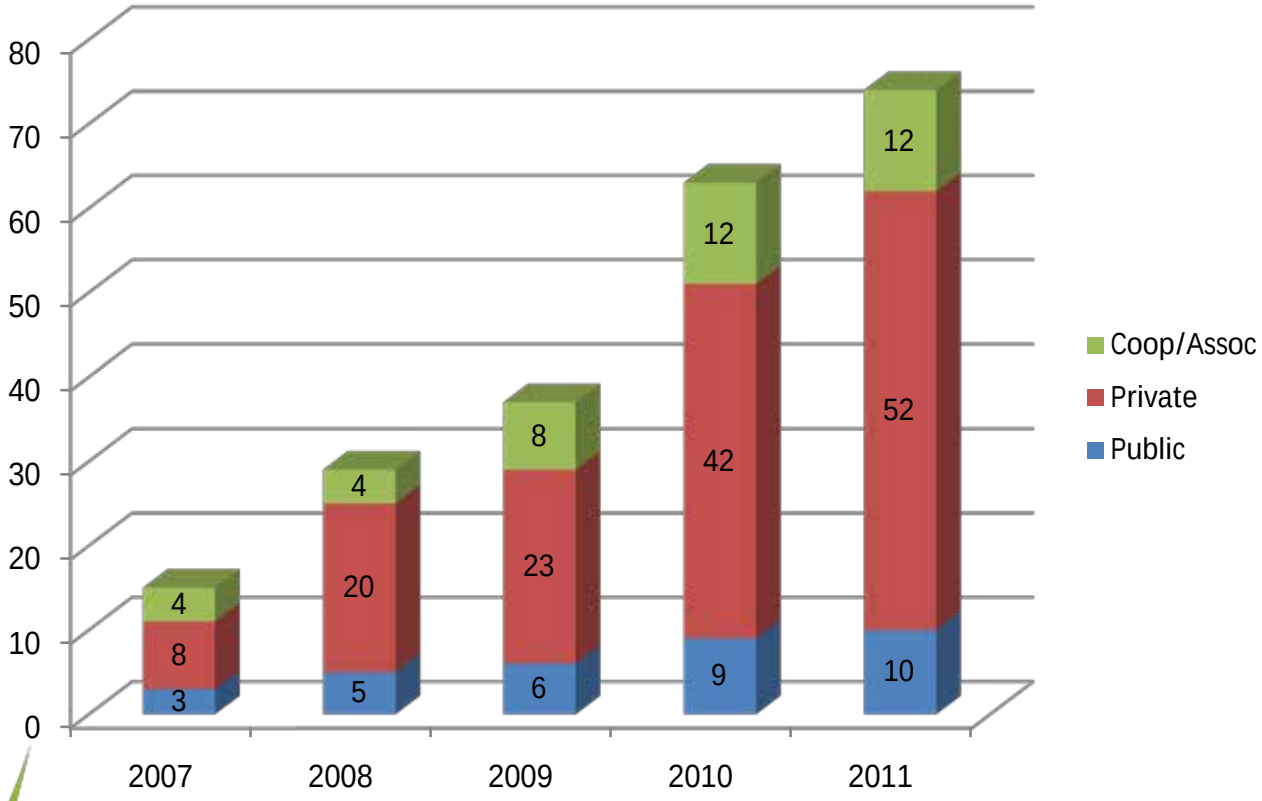
Varieties Released and Commercialized



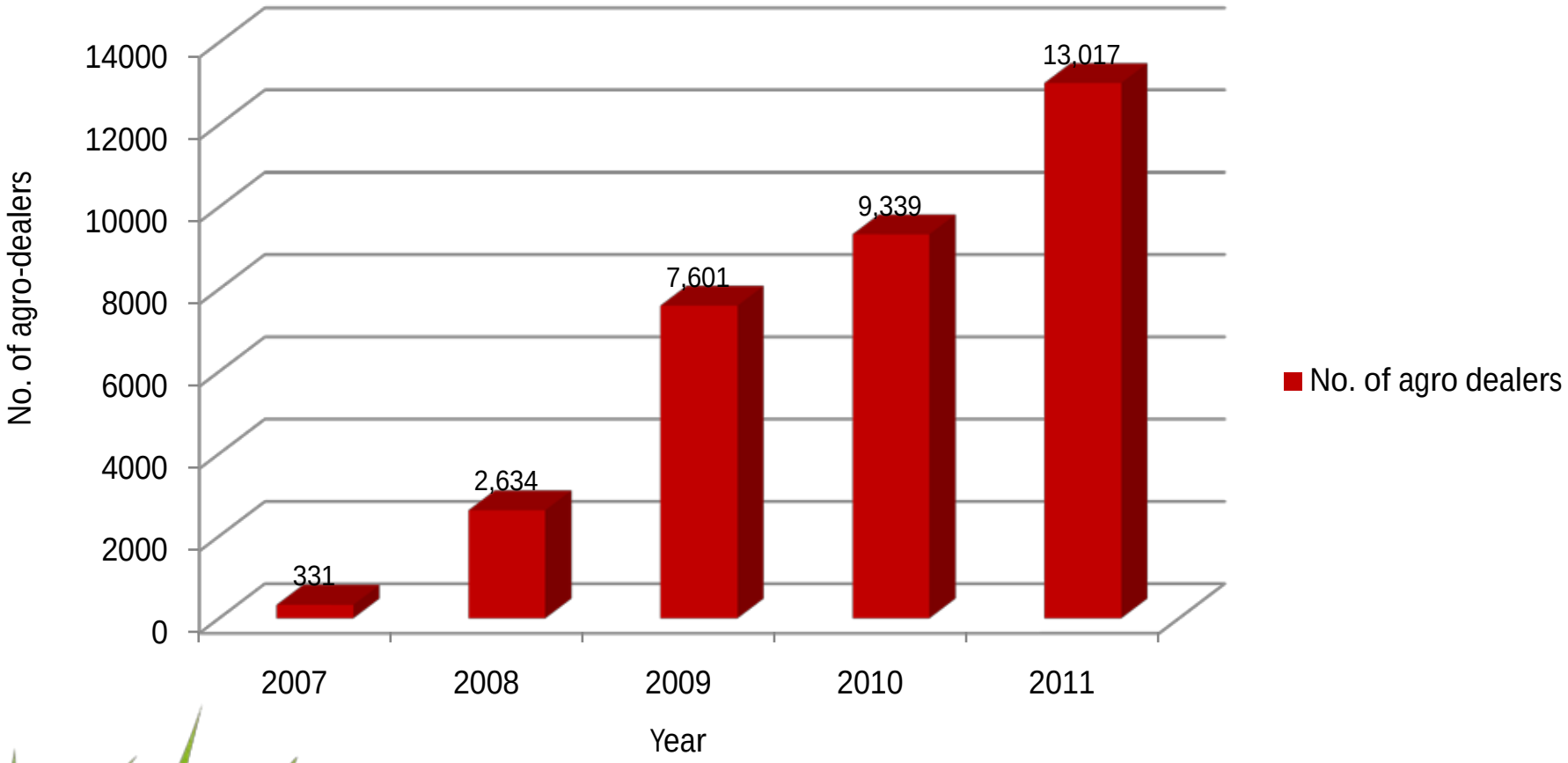
AGRA's Results to-Date on Seed



Number of AGRA-supported seed enterprises through grants by type - cumulative



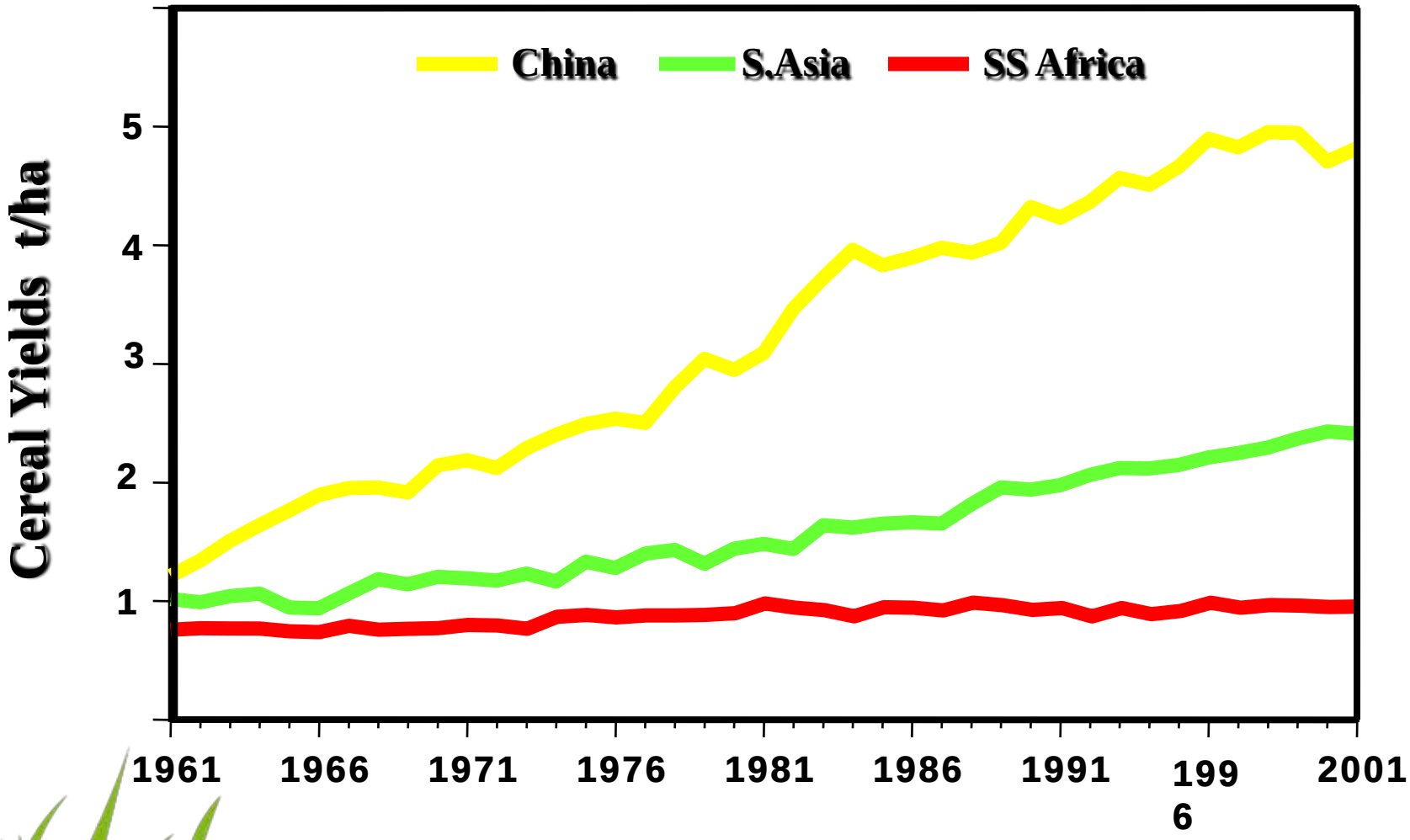
No. of agro dealers



Role of Public and Private Sector in Input Delivery

- There is space for both public and private sector
- All key players
- Both need each other for smooth operation and co-existence
- Certain roles can be played by both while others are best played by a particular category

Why there is need to work together



Source: FAOSTAT (2001)

Estimated maize seed demand and supply in Africa in 2006/07

Country	Area (x mil ha)	Seed demand (x1000 mt)	Seed sales (1000mt) OPV	Hybrids	% DD	Production/ company (mt)	New cos to meet DD
Ethiopia	1.7	42	2.0	6.2	19	1,171	29
Kenya	1.6	39	1.7	26.3	72	2,333	5
Tanzania	2.6	64	3.9	7.3	18	800	66
Uganda	0.7	17	3.5	2.2	35	814	13
Angola	0.8	19	0.8	0.2	5	250	73
Malawi	1.4	35	5.4	2.5	22	1,580	17
Mozambique	1.2	30	3.1	0.2	11	413	65
Zambia	0.6	14	0.5	9.7	73	1,700	2
Zimbabwe	1.4	34	2.2	25.9	80	2,555	2
Benin	0.7	16	na	na	na	na	31
Ghana	0.7	19	0.2	0.001	1	154	107
Mali	0.3	8	0.02	0.0	0.3	46	163
Nigeria	3.6	89	2.4	1.8	5	525	162
Total	17.3	427	25.7	82.3	28	1,152	772

Rg.av. ⇩

36 %

28

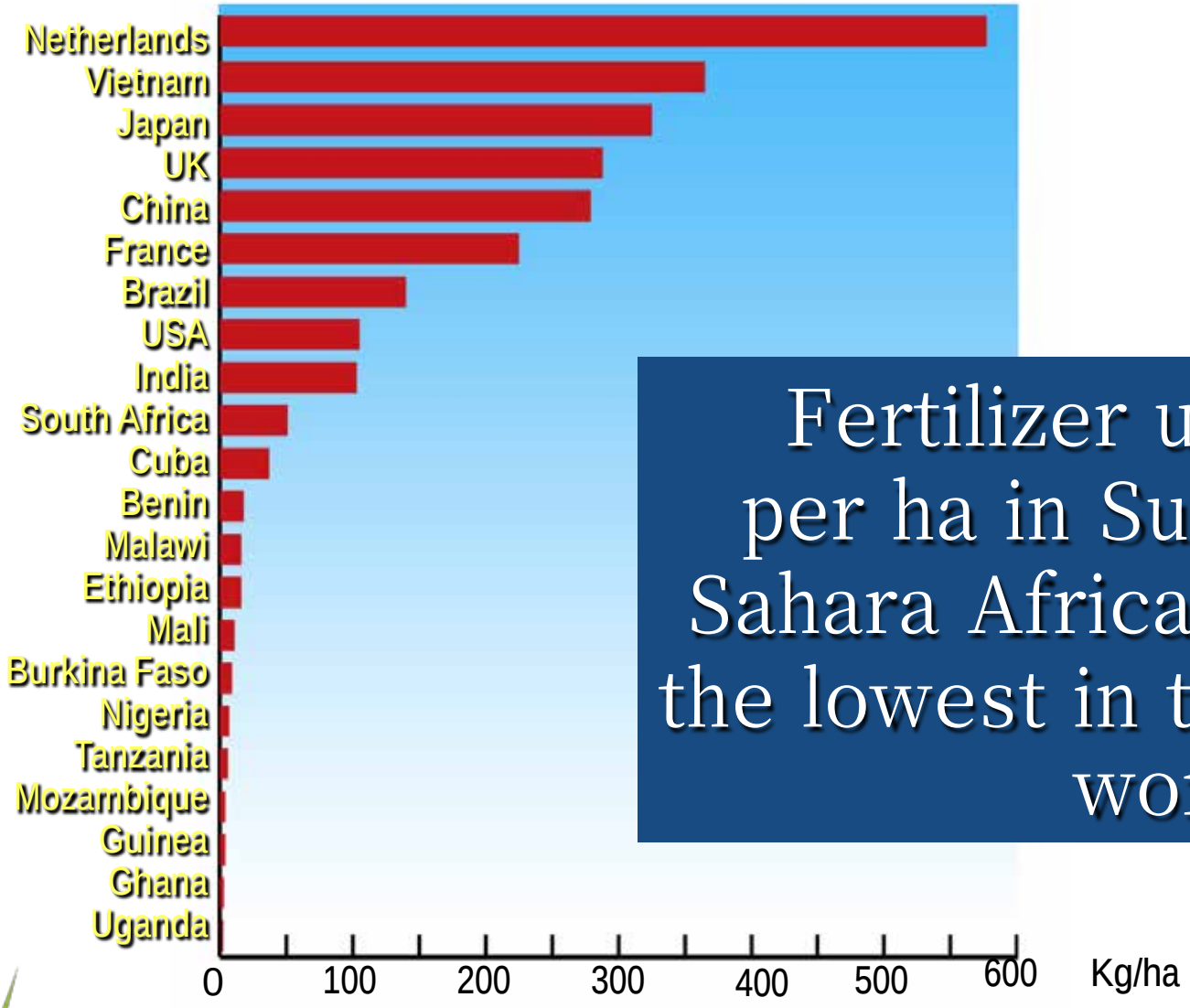
38 %

32

2 %

116

Source: Langyintou, et al., 2009



Fertilizer use per ha in Sub-Sahara Africa is the lowest in the world

Source: FAOSTAT, July 2003; Norman Borlaug, 2004

Key players

Government

- Seed production (in some countries)
- Manufacture e.g. pesticides, fertilizers
- Importation of inputs (monopoly or in part)
- Subsidy program
  - buys and distributes
  - determines price (in some countries)
  - determines where to market (in some countries)

Set guidelines and polices and their implementation

- Regulator (to ensure quality)

Private Sector

Seed entrepreneurs

- produce, process & market
- import or manufacture

Agro-dealers

- manufacture
- market

Challenges – Fertilizer: Supply and demand side constraints to fertilizer use by farmers

Demand side constraints:

- High level of poverty among farmers
- High levels of risk aversion by poor farmers
- Limited knowledge on efficient use of fertilizers
- Lack of access to credit for farm inputs

Challenges on Fertilizer

- Poor infrastructure (ports, roads, water, railway)
- High taxes and fees
- Low fertilizer demand
- Rising fertilizer prices
- Building trust
- Policy reversals
- Program linkages
- Inadequate storage facilities

Challenges - Fertilizer

- *High transport costs:* high inland transport cost accounts for a significant share of the high farm gate prices for fertilizers. Poor road and rail systems lead to high costs and risks.

- Inland transport costs are high compared to the cost of shipping fertilizers into Africa. For example, it costs $50 to ship a ton of fertilizers from the US to the port of Mombasa in Kenya, for a distance of 11,000 Km. Transporting the same ton of fertilizer from Mombasa to neighbouring Uganda, a distance of less 1,000 Km, costs $80-90 (Morris et al., 2007).

Challenges on fertilizer cont'd

Inappropriate fertilizer recommendations:

- Fertilizer recommendations in many parts of Sub-Saharan Africa are out-dated. Many are based on fertilizer responses for cash crops and do not take into consideration diversity of the farming systems, rainfall, risks and soil types.

General Challenges

- Government procurement & distribution of inputs which undercut private markets
- Limited /lack of government support to promote green revolution technologies
- Adoption of new technologies has declined substantially due to non-availability of agricultural technologies

  - poor funding of research

  - dearth of extension services

  - lack of political will (bulk of the budget allocations go to non-agricultural sectors).

General Challenges

Policies in some countries restrict private seed companies to

- access public varieties
- produce their own foundation seed
- set price for seed produced
- decide where to sell seed

Poorly functioning output markets: Access to markets and high prices are necessary for farmers to adopt and sustain the use of fertilizers

- One of the reasons why farmers in Asia and Latin America invested in seed & wide usage of use of fertilizers was the existence of guarantee prices for their grains. Governments established strategic grain reserves and announced guaranteed minimum prices for grains ahead of the plating season.

Areas Where Government Support is Required in Seed Business

- Create favorable environment for private sector to do business in inputs (e.g. taxes, land, loans)
- Enable private sector access public varieties
- Support the policies to liberalize foundation seed production
- Facilitate the implementation of harmonized seed laws
- Facilitate the reform of crop variety release regulations
- Review and disseminate best practices to increase seed demand
- Facilitate the elimination of regional barriers to trade
- Establish professional regulatory bodies to maintain quality

What governments should do on fertilizers

- Improve on infrastructure (ports, roads, water & railway)
- Review of the impacts of taxes on fertilizer
- Promote fertilizer usage
- Improve procurement practices at national and regional levels
- Encourage investors to establish fertilizer plants
- Review and update fertilizer recommendations
- Disseminate best practices to increase the demand for integrated soil health technologies
- Educate farmers and create awareness
- Work with private sector to create markets for farmers' produce

THANK YOU
VERY MUCH