

Achieving Africa's Green Revolution: Partnerships for improved input distribution

Akin Adesina

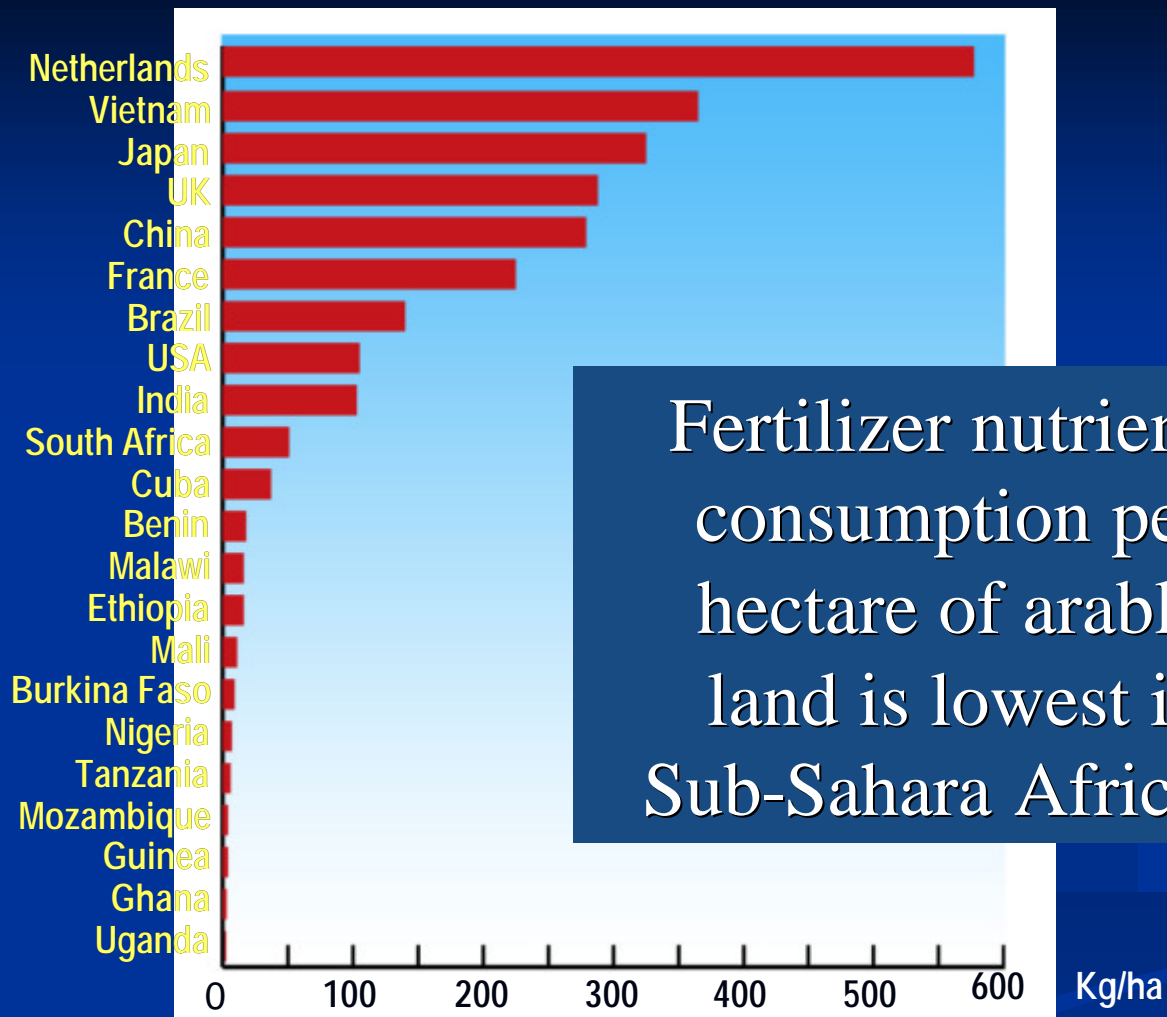
Associate Director, Food Security

The Rockefeller Foundation

**** Presentation delivered at Oslo Africa Green Revolution Conference, Norway, August 31 to
September 1, 2006**

Headlines

- **Challenges of markets**
- **Access, affordability and incentives**
- **Successes in building input markets**
- **Key areas for strategic partnerships for improving input supply**



Source: FAOSTAT, July 2003; Norman Borlaug, 2004

NEPAD Goal for Africa:

6% annual agricultural growth rate by 2015

- **Current fertilizer use: 1.4 million tons**
- **What's needed: 5.2 million tons**
- **Must address challenges:**
 - **Access**
 - **Production**
 - **Incentives**

Demand constraints

- **Lack of inputs in affordable sizes**
- **Limited information and knowledge**
- **High risks (climatic and price risks)**
- **Poverty and weak purchasing power**
- **Poor functioning of rural financial markets**
- **High search costs to find fertilizers**

Supply constraints

- **Limited number of trained rural stockists**
- **Poor transport and handling infrastructure**
- **Small shipments raise unit import costs**
- **High import costs for low analysis fertilizers**
- **High taxes for transit supplies at ports**
- **High taxes on fertilizer imports**
- **Lack of harmonization of fertilizer regulations**

While seeds and fertilizer companies supply commercial farmers, the poor face challenges: **Access, Affordability and Incentives**



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



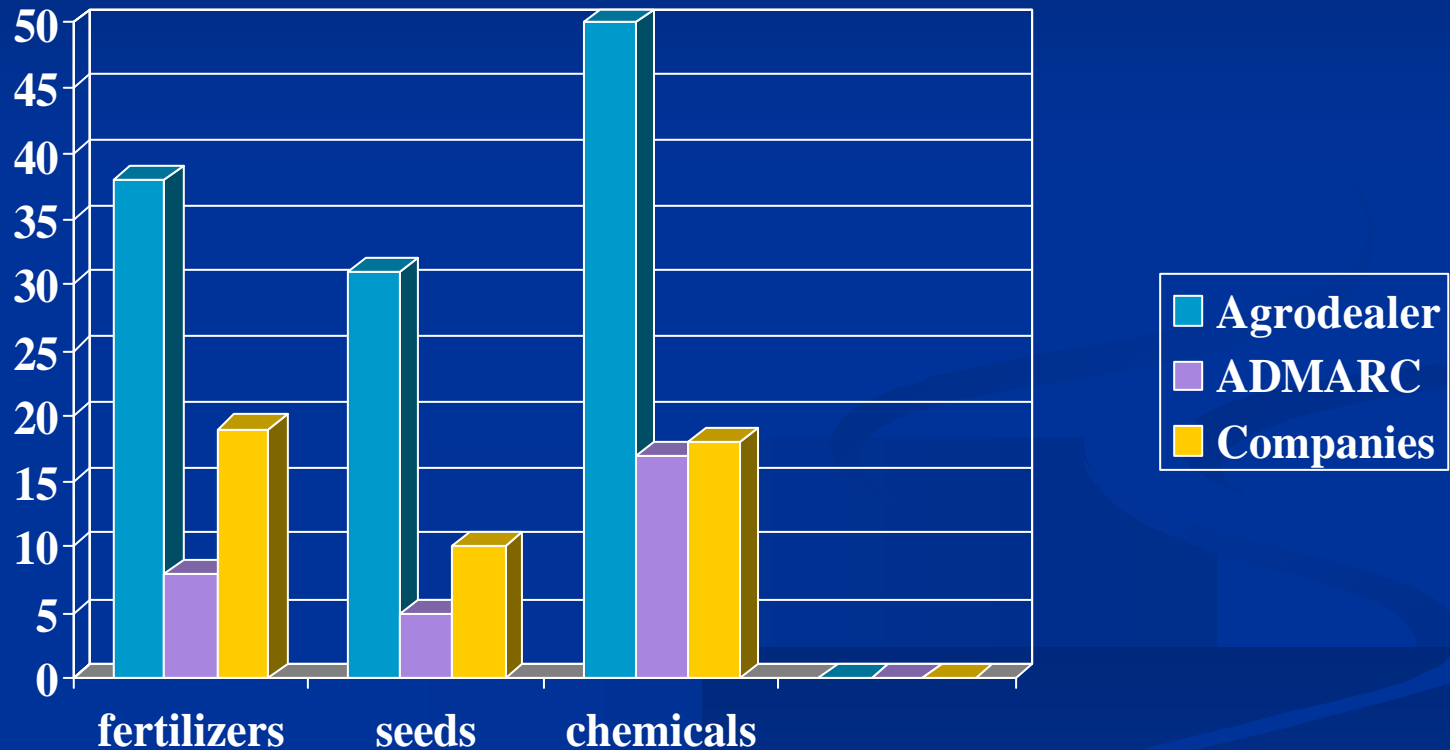
Why not transform rural shops into points of input sales – agrodealers ?

- **Linking input supply companies to farmers**
- **Exposing farmers to information and knowledge of agricultural innovations**
- **Provision of credit for farmers**
- **Repackaging inputs in affordable sizes for poor farmers**

Challenges facing agrodealers

- **Lack of access to finance**
- **Limited knowledge of inputs**
- **Poor business skills**
- **Limited purchasing power of farmers**
- **Limited investment from private sector suppliers (“free rider problem”)**

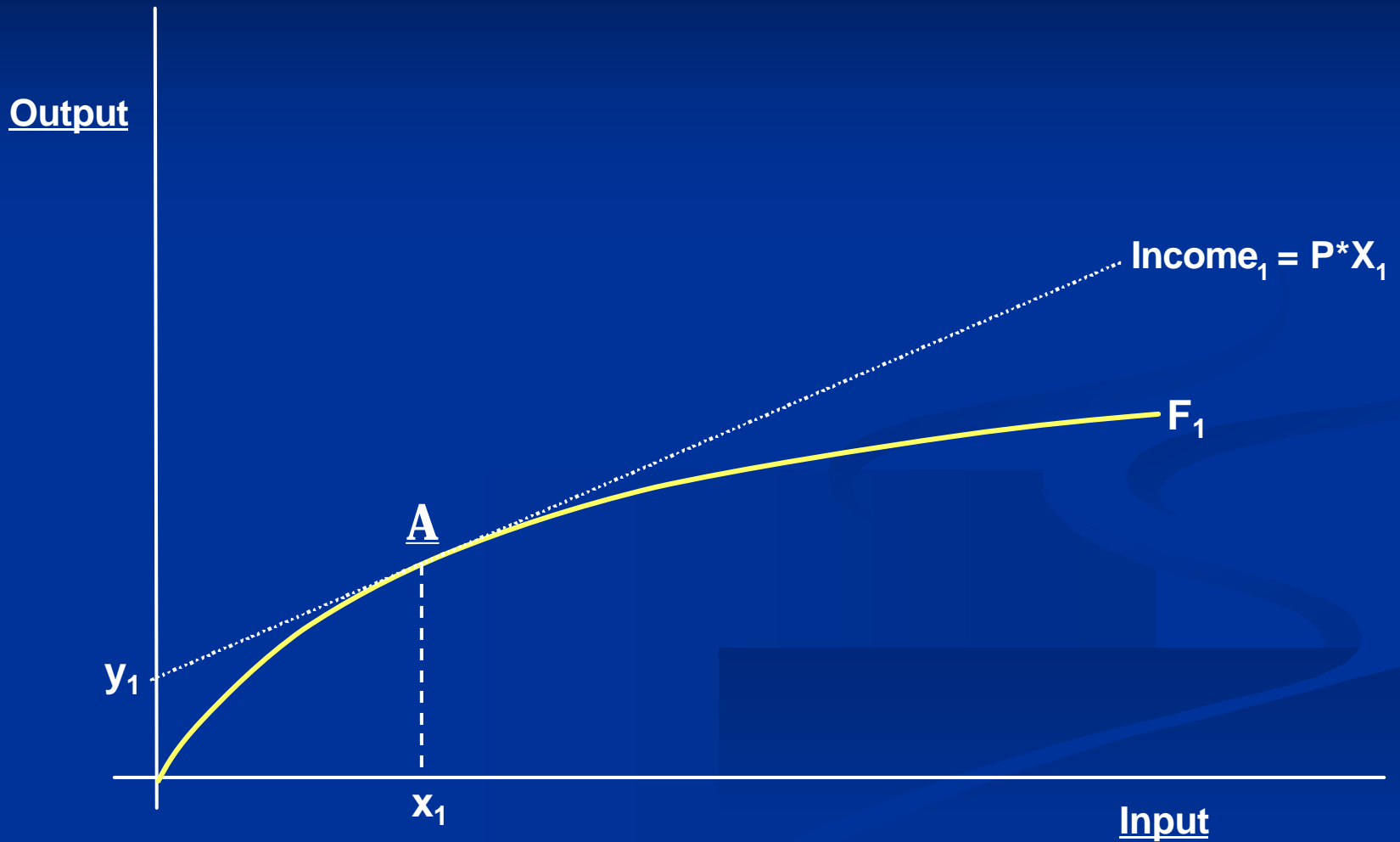
Agrodealers are becoming the major source of inputs for the rural poor in Malawi (% farmers)



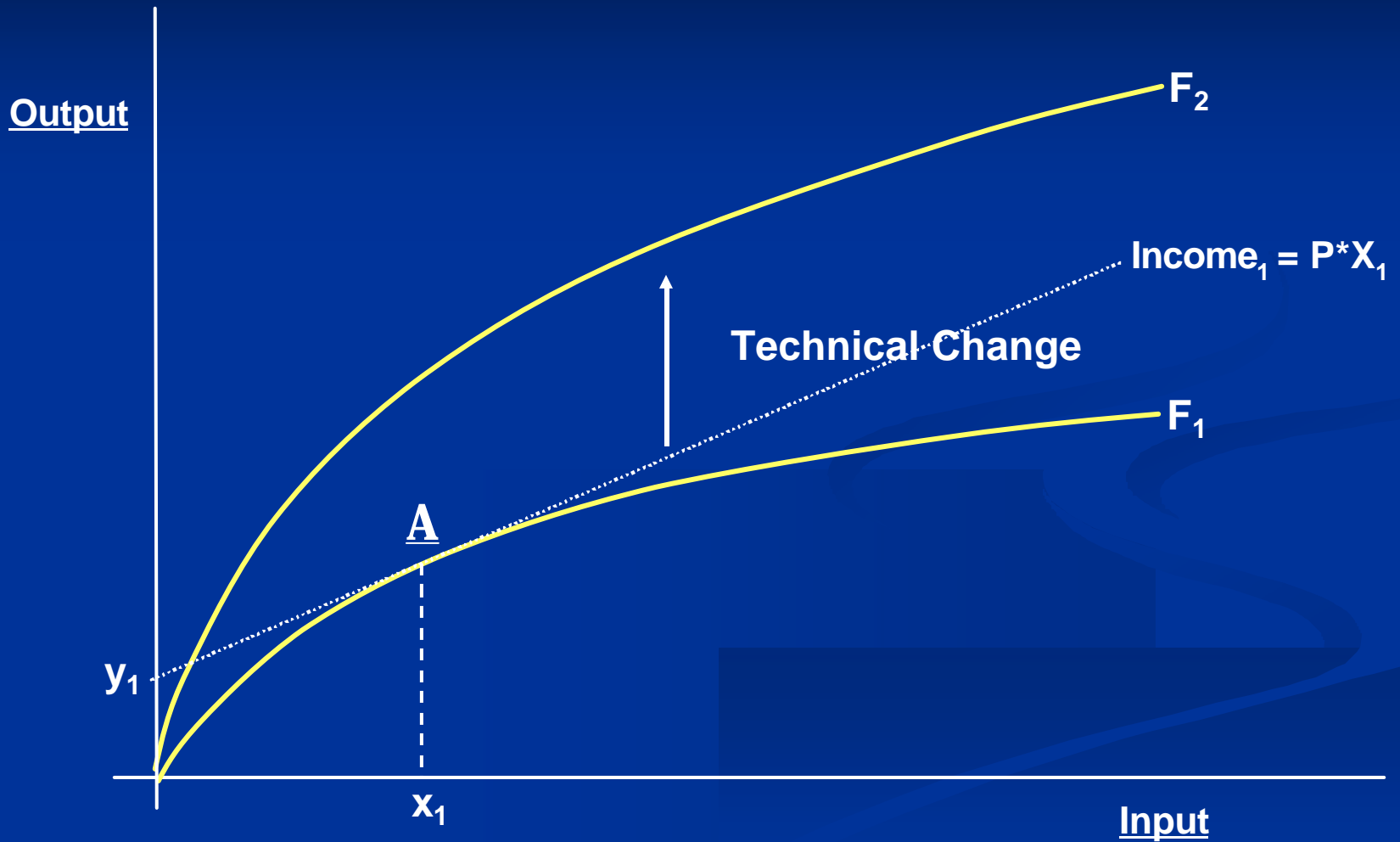
“Smart” public policies (subsidies?) needed to stimulate markets for pro-poor growth: **Percentage of farmers using improved technologies in Kenya**

| Farm size of farmers (acres) | % using improved varieties | % using fertilizers |
|-------------------------------------|-----------------------------------|----------------------------|
| < 0.25 | 0.6 | 1 |
| 0.25 – 0.5 | 2.9 | 5 |
| 0.51 – 0.99 | 9.3 | 3 |
| 1 - 2 | 23.6 | 23 |
| > 2 | 63.6 | 68 |

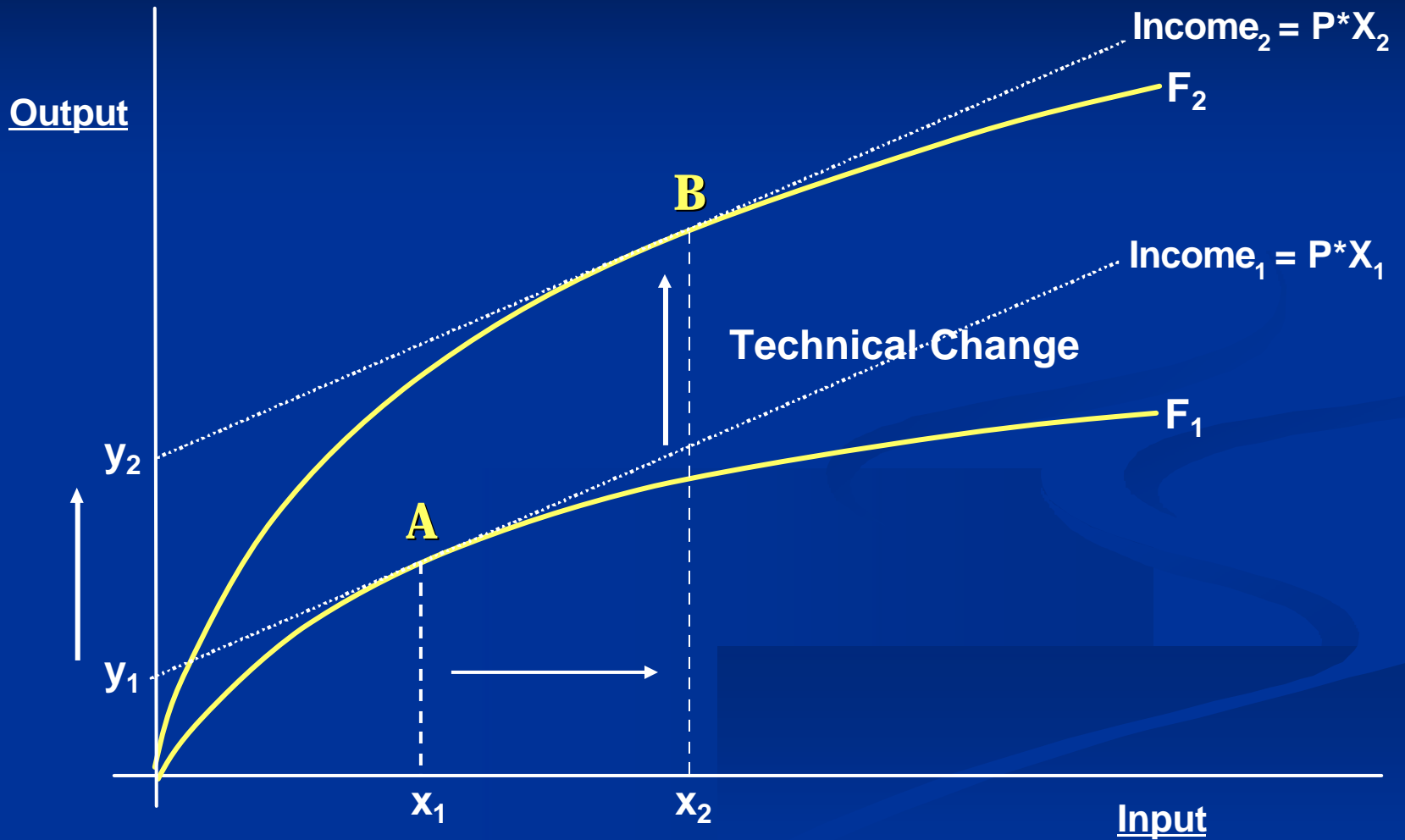
Income Transfers and Technical Change



Income Transfers and Technical Change



Income Transfers and Technical Change



Making “smart subsidies” work

- **Input vouchers for the poor**
- **Develop “smart cards” for farmers**
- **Develop databank for all agrodealers**
- **Farmers redeem vouchers from agrodealers**
- **Agrodealers redeem vouchers from banks**
- **Stimulate private (rural) sector markets**
- **Transition out of subsidies (5-10 years)**

Stimulating demand for fertilizers: “Small” packs for “poor” farmers

- **FIPS, Kenya:** small packs empower experimentation with low risk
- Farmers trained in efficient use using demonstrations
- Initial success stimulates purchase of larger quantities
- Thousands of poor farmers reached at low cost
- **Need to progress to economically optimal fertilizer levels**



FIPS-Africa
SMB INPUT PROMOTIONS AFRICA LTD.



Successful Public-Private Partnership: “Mavuno” fertilizer small packs expand access and affordability to very poor farmers in Kenya

- Company develops multi-nutrient fertilizer blends
- Packs in 1 kg bags
- Yields up to 100% compared to DAP and Urea
- Dramatic success: After one year, firm invests **US\$ 8 million** to expand capacity
- Within 2 years: over 10,000 tons sold – all to very poor farmers

17

Mining firm to invest Sh600m in fertiliser

By NATION Reporter

Athi River Mining Company Ltd will next year invest over Sh600 million in production of cheaper fertiliser for local farmers.

Managing director, Pradeep Paunrana, said that currently, the company produces the Mavuno fertiliser developed

Africa Must Cut Down High Fertilizer Prices:

Value-to-cost ratio for fertilizers declined rapidly as fertilizer prices increased dramatically

| | 1980's | early 2000's | % Decline: |
|-----------------|---------------|---------------------|-------------------|
| Ghana | 6.8 | 2.2 | 209 |
| Malawi | 7.4 | 1.3 | 469 |
| Nigeria | 7.5 | 3.1 | 141 |
| Zambia | 5.2 | 1.1 | 372 |
| Tanzania | 6.5 | 1.1 | 490 |

Africa has limited economies of scale in imports: Fertilizer imports in Africa

| Nutrient (tons) | Number of countries |
|--------------------------|----------------------------|
| 0 – 10,000 | 25 |
| 10,000 – 30,000 | 6 |
| 30,000 – 50,000 | 6 |
| 50,000 – 100,000 | 3 |
| 100,000 – 150,000 | 3 |
| > 150,000 | 1 |

Africa must overcome structural supply-capacity constraints

- **Joint procurement and distribution**
- **Improve regional transport infrastructure**
- **Import high analysis fertilizers**
- **Import bulked fertilizers, instead of bagged**
- **Eliminate all duties on fertilizers**
- **Improve regional fertilizer trade**

Africa must expand local fertilizer production capacity

- Africa has 70% of the world's rock phosphates
- Encourage private fertilizer manufacturing
- **Why Africa should consider this?**
 - Lower import costs and save foreign exchange
 - Optimize available local fertilizer resources
- **Public policies are needed:**
 - Access to finance for the private sector
 - Stimulate demand
 - Regional harmonization

Going forward: key elements for input distribution partnerships

- **National (access, affordability and incentives)**
 - **Develop agrodealer networks**
 - **Establish national input credit guarantees**
 - **“Smart subsidies” for the poor**
 - **Packaging fertilizers in smaller sizes**
 - **Financing for fertilizer dealers**

Going forward: key elements for input distribution partnerships

- **Regional (affordability)**
 - **Joint procurement and distribution**
 - **Develop regional transport infrastructure**
 - **Promote local manufacturing of fertilizers**
 - **Harmonization of regulations and tariffs**

Improve and stabilize output markets

- **Improve grain storage**
- **Warehouse receipt systems**
- **Guaranteed minimum price floors**
- **Sensible use of strategic grain reserves**
- **Market price information**
- **Trade finance for grain traders**
- **Regional trade**
- **Product transformation**