Fertilizer policy and use in Tanzania

Nicholas Minot
International Food Policy Research Institute

Presented at the
Fertilizer Policy Symposium of the
COMESA African Agricultural Markets Programme (AAMP)
Livingstone, Zambia
15 June 2009

Outline

- Evolution of fertilizer policy in Tanzania
- Trends in fertilizer use
- Fertilizer use by region and by crop
- Composition of cost of fertilizer
- Recent experience with fertilizer subsidy
Evolution of fertilizer policy

• 1967 Arusha Declaration
  - Villagization
  - Nationalization of industry & ag marketing
  - Fertilizer importation and distribution state monopoly
  - Highly subsidized price, but delays and shortages
  - Economic crisis by mid-1980s
• 1986 Start of economic reforms
  - Liberalization of prices & forex, end of state monopolies
  - Agricultural market liberalization
  - Fertilizer subsidies phased out 1991-94
• 2003-present
  - Return of limited fertilizer subsidies
Trends in fertilizer use

Trends in fertilizer application rates in SSA and Tanzania


Fertilizer use by region & by crop
Comparison of fertilizer use in selected African countries in 2005

![Chart showing fertilizer use in selected African countries in 2005.](chart.jpg)


Map of the percentage of farmers using fertilizer in Tanzania by district

![Map showing the percentage of farmers using fertilizer in Tanzania by district.](map.jpg)

Source: Tanzania Agricultural Sample Census 2002-03.
Percentage of farmers using fertilizer in Tanzania by crop

Source: Tanzania Agricultural Sample Census 2002-03.

Characteristics of fertilizer purchases

- Location of purchase
  - 81% local market or trade store
  - 12% cooperative
  - 7% other

- Source of finance
  - 69% Sale of farm products
  - 24% Other income sources
  - 2% Credit
  - 5% Other

- Reasons for not using fertilizer
  - 63% Price too high
  - 20% Not available
  - 10% Fertilizer no use
  - 7% Other
Composition of costs of fertilizer in Tanzania

Composition of costs of fertilizer in Tanzania (2)

Recent experience with fertilizer subsidies

2003-2007 – Subsidies for transport of fertilizer
2008-2013? – National Agricultural Input Voucher Scheme (NAIVS)

2003-2007 Fertilizer transport subsidies

- **Objective:**
  - Facilitate fertilizer use in remote areas
- **Policy:**
  - Subsidize transportation of fertilizer to selected regions (including southern highlands).
  - Fix margins and prices to ensure subsidy passed to farmers
  - Government manages physical flows
- **Outcome:**
  - FAO shows increased use of fertilizer
  - But heavy involvement of government in managing distribution
  - Late delivery due to fact that subsidies tied to political budgetary process
  - Price controls not effective at farm level
  - Some leakage to other neighboring countries

---

2007- **National Ag Input Voucher Scheme (NAIVS)**

- **Objectives:**
  - Facilitate fertilizer use in high-potential areas
  - Offset rising cost of fertilizer
  - Stimulate production to reduce food prices
  - Stimulate (rather than displace) private distribution network
- **Policy:**
  - Distribution of vouchers for inputs
  - Targeting
  - Complementary support for input sector
  - Scaling up and scaling down
NAIVS: Vouchers

- Distributed to selected farmers in selected districts
- Three input vouchers:
  - 1 bag of urea
  - 1 bag of DAP/Mijingu
  - Improved maize or rice seed
- Voucher worth 50% of price
  - so 50% co-financed by farmers
- Vouchers are handled by agro-dealers trained and certified by CNFA
- Vouchers redeemed by National Microfinance Bank (largest branch network in country)

NAIVS: Targeting

- Targeting at regional level/district:
  - No. of maize and rice farmers
  - Irrigation
  - Southern and Northern Highlands, Western Region

- Targeting at household level:
  - Full-time farmer residing in the village
  - Cultivating maize and/or rice
  - Not more than 1.0 hectare of land
  - Willing to use provided inputs on those crops
  - Willing to follow recommended agricultural practices
  - Willing and able to co-finance the input purchased through the vouchers
  - Priority given to:
    - Female-headed households
    - Households who didn’t use any or little fertilizer and improved seeds for targeted crops over the last five years.
NAIVS: Complementary support

- Public awareness campaign
- Program to strengthening agro-dealers with training and certification
- Support to the seeds sector
- Integrated soil fertility management
- Monitoring and evaluation

NAIVS: Scaling up and scaling down

- 2007 Pilot program in two districts
- 2008 Scaled up to 53 districts
  - 700 thousand beneficiaries
  - US$ 60 million cost
- 2009-11 Expands to 57 districts
  - 1.5-2.0 million beneficiaries
  - US$100-150 million cost
  - IDA/World Bank funding about 50% of cost
- After 2011,
  - IDA support ends, NAIVS winds down?
Conclusions on NAIVS

- Too soon to evaluate impact
- But promising combination of features
  - Targeting maximizes benefits
  - Vouchers minimize distortions
  - Complementary measures to support distribution network
- However, some questions remain
  - Given high cost, can it be replicated in other countries?
  - When IDA support ends, will it be
    - Politically feasible to phase out programme?
    - Or fiscally feasible to continue it?
  - Are targeting procedures successful?
  - Will cost-benefit analysis show benefits in agricultural output greater than cost?