KEY MESSAGES

- **NAIVS increased farmers’ agricultural technology utilization capacity for fertilizers from 81% to 97% and 77% to 99% for improved seeds from 2008/09 to 2011/12 respectively.**
- **The NAIVS reached out 80 percent of the targeted 2.5 million households of smallholder farmers.**
- **NAIVS effect was higher in ecologically proven areas, re-direct meager resources to the potential areas to increase programme impact**
- **Increase National Agricultural Inputs Voucher Scheme (NAIVS) package to enhance its meaningful contribution to food production and food security.**
- **Private sector participation increased production of improved seeds by 52 percent implying that farmers have more access to improved seeds**
- **Enhance extension education for farmers to adopt fertilizer recommendations under agronomic best practices**
- **Address weaknesses on beneficiary targeting and delivery efficiency through enhanced monitoring mechanism.**

**Introduction**

The Government of the United Republic of Tanzania has been implementing the National Agricultural Inputs Voucher Scheme (NAIVS) since 2008/2009 under the Accelerated Food Security Programme (AFSP) with a total budget of US $ 299 million for a period of 3 years whereby the Government financed 46.5 percent whereas the World Bank financed 53.5 percent of the total costs. The programme objectives were to contribute to increased food production by supporting smallholder farmers to access agricultural inputs and increasing agricultural technology adoption by subsidizing the prices of improved seeds and fertilizers in targeted areas.
Key Findings

Impact of NAIVS on Food Production

Based on the ex-ante and ex-post yield estimates, while holding the assumptions that crop production depends on other factors, the NAIVS’ effect on maize production increased from 2.1 tons per ha before the programme in 2005/06 to 3.97 tons per ha after the programme implementation, showing an increase of 1.8 tons/ha. **This is the impact of the government’s subsidy on the prices of seeds and fertilizer**

Fig. 1: Effect of NAIVS on Maize Production

![Graph showing the effect of NAIVS on maize production.](image)

**Effect of NAIVS on Paddy (Rice) Production**

The effect of NAIVS was obtained using the ex-ante-ex-post estimates of paddy production that shows increase of 1.4 tons/ha after the programme implementation in 2008/09 (Fig.2).

**Figure 2: NAIVS Effect on (Paddy) Rice Production**

![Graph showing the effect of NAIVS on paddy rice production.](image)

The effect of NAIVS varies across regions and years due to ecological variations. For example during the 2009/10 Arusha and Morogoro regions had high paddy production compared to other regions due to the ecological differences. The subsidy effect on production was higher on ecologically areas than elsewhere (Fig. 3)
Effect on Private Sector Participation

The private sector participation in the NAIVS was effected by private fertilizer and seed companies through agro-dealers network for distributing inputs into villages. The private sector participation was assessed in terms of seed and fertilizer production, supply, distribution, marketing and timely delivery to farmers.

Production of maize seeds by private companies increased from 8.7 tons before NAIVS in 2005/06 to 13 tons after the programme implementation by 2009/10 implying 52 percent change in maize seed. This implies that private sector has increased seed availability to farmers.

Agricultural technology utilization capacity

The NAIVS has improved agricultural technology utilization as more farmers adopt and use improved seeds and fertilizers (MRP, DAP and UREA). The utilization capacity for fertilizers has generally been increasing from 81 percent to 97 percent and 77 percent to 99 percent for improved seeds. However, farmers’ fertilizer use has been low at 8 kg per ha compared to the agronomic recommended use of 50 kg per ha.

Programme implementation challenges

Delivery Effectiveness

While acknowledging rain season variations across the country, the major complaint is about late delivery of input vouchers and therefore late delivery of inputs to farmers. In most cases inputs subsidy vouchers got to farmers between two - three months off the farming season.

Targeting beneficiaries

Targeted households could not access the NAIVS as per programme design. The selection criteria targeted farmer households cultivating less than half hectare. But during implementation farmers with more than 1 ha, were among the beneficiaries.

Some targeted farmers could not afford topping up 50 percent of the market price, therefore rich farmers bought off vouchers. The input subsidy programme gives the impression that the programme is pro-poor farmers, however the targeting criteria excludes them from fully participation.
In terms of targeting regions, the study observed that the original NAIVS programme targeted in the proven ecologically suitable areas for production of major food crops (maize and rice) in the Southern and Northern Highlands and Western Regions (Rukwa, Ruvuma, Mbeya, Iringa, Morogoro, Kilimanjaro, Manyara, Arusha, Kigoma and Tabora). However, during implementation, the programme covered the entire country, thus leading to thinly spread of programme effect.

Programme Monitoring and Evaluation

Problems associated with procedural practices on the selection of beneficiaries displays weak programme monitoring and evaluation. The overall monitoring and reporting mechanism has to be reorganized as an important programme management to be budgeted for.

Policy Recommendations

The Ministry of Agriculture Food Security and Cooperatives should enhance the National Agricultural Inputs Scheme in order to increase smallholder farmers’ productivity for increased food production and food security in the country. It is recommended that:

1. Improve Programme Management and Administration

   Improve programme management and administration to expedite the delivery of vouchers and inputs to farmers. Managerial inadequacy in the delivery of vouchers caused by procurement and approval bureaucracy affected programme delivery.

2. Improve Delivery of Vouchers and Inputs

   Deliver vouchers and inputs to end users at least one month before farming seasons. This action is likely to improve access to inputs and application of improved seeds and fertilizers that would eventually contribute to yield increase and food security.

3. Targeting of Farming Households

   Targeting farmers with capacity to top up on the subsidized prices would increase programme effect. Most farmers were excluded in many areas due to the strict eligibility criterion of cultivating no more than 1 hectare of maize or paddy, and the ability to pay 50% price top-up.

4. Increase NAIVS Investment on Target Areas

   If the NAIVS has to maximize the benefits, it needs to increase investment in the ecologically potential areas that have proven potential to increase food production. The investment should go along with continuous extension education on the proper application of fertilizers.

5. Strengthen Village Voucher Committees

   Strengthen Village voucher committees to be able to administer and monitor NAIVS. Capacity building for input voucher administration, monitoring and evaluation will enhance the committees capability to effectively apply selecting criteria for targeting beneficiaries thus minimizing the degree of displacement.
6. Institutionalize E-Monitoring to Overcome Malpractices

Institutionalize electronic monitoring to improve programme management. The misallocation of vouchers could be minimized thought the use of e-monitoring system. Capacity building of the members of voucher committees at regional, district as well as at village levels to use the e-monitoring would be necessary for improving the NAIVS performance.

Conclusion

The implementation of agricultural subsidy programmes such as NAIVS have potential contribution to successful green revolution and attaining food security. NAIVS has created awareness on the application of agricultural technology that has increased food production. About 97% of farmers are using improved seeds and fertilizers though at low rate. To sustain the gained interest to use improved seeds and fertilizer,

Most farmers were excluded in many areas due to the strict eligibility criterion of cultivating no more than 1 hectare (approximately 2.5 acres) of maize or paddy, and the ability to pay 50% price top-up. NAIVS beneficiary selection criteria need to be reviewed to benefit potential farmers.

It was observed that NAIVS benefited smallholder farmers directly and imparted the knowledge that the Government has subsidized them through the top-up on the commercial price. In previous systems, farmers did not feel the subsidy as they either did not get the inputs or regarded as a government offer as they did not make any payments.

SELECTED REFERENCES


