



National Agricultural Input Voucher Scheme (NAIVS 2009–2012), Tanzania: Opportunities for Improvement

By Kriti Malhotra

Executive Summary

Agriculture is the primary economic activity in Tanzania, and nearly 70% of those engaged in agriculture are small-scale farmers. The greatest identified impediment to high agricultural production and food security in Tanzania is the low usage of fertilizers and improved seeds. The poverty level for farmers who depend on the sale of food crops is high (National Bureau of Statistics, 2002), suggesting a nexus between agricultural production and poverty. Thus, the National Agricultural Input Voucher Scheme (NAIVS; implemented by the Government of Tanzania with support from the World Bank) was launched as a *smart-market subsidy* targeted at providing small-scale farmers with access to critical agricultural inputs, such as fertilizers and improved seeds, at a 50% subsidy. It is aimed at high levels of food crop production, particularly for maize and rice. This brief examines key indices identified in the implementation of NAIVS, i.e. awareness of the programme and administrative bottlenecks in service delivery. The brief includes findings from pooled household data from two years (2010/11–2011/12) across eight regions in Tanzania (refer to footnote 1 on page 2). The total number of households for the purpose of this analysis is 1,863 – 51% beneficiaries and 49% non-beneficiaries.

Key findings are as follows: (1) There is a high level of general awareness about the programme among the farmers, but there is a need to focus on specific awareness pertaining to eligibility criteria and to the scheme's exit mechanism. (2) There are loopholes in service delivery – land criterion, affordability, and authentication partially followed for targeting the true beneficiaries; (3) there is also a need to strengthen the agricultural extension services.

Introduction

This brief discusses the scope for improving agricultural input subsidies with reference to the implementation of NAIVS in Tanzania (2010/11–2011/12). It begins with the importance of awareness of NAIVS and examines the awareness levels among the farmers in the programme. The discussion then addresses the challenges encountered in service delivery, particularly with reference to the Village Voucher Committee, which

is responsible for administering the input subsidies. The brief concludes with policy recommendations.

Key Findings

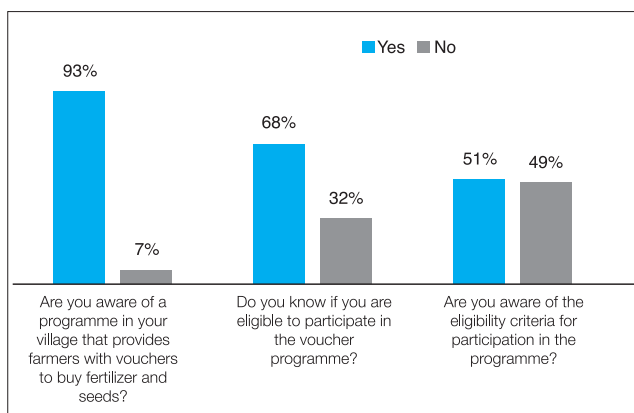
a. Awareness

Awareness has been vital to the success of many agricultural input initiatives (V. Kelly et al., 2003). It is the first, most crucial step in creating an effective demand for agricultural inputs and in speeding up input adoption. Level of awareness has also been

identified as a factor that can advance the likelihood of *elite capture* of vouchers (Bardhan & Mookherjee, 2000). The key findings suggest a need to focus on specific criteria and objective awareness of the programme.

High level of general awareness of the programme

NAIVS campaigns sought to facilitate small-scale farmers' awareness of the scheme. Out of the total households surveyed, 93% were aware of a programme that provides farmers with vouchers to buy fertilizer and seeds.



However, almost half of the respondents were not aware of the programme's eligibility criteria, suggesting the absence of informed participation, which is crucial to the programme's overall objective. The awareness level about specific eligibility criteria was particularly high in Ruvuma and Rukwa, whereas the awareness levels in Morogoro, Arusha, and Iringa were relatively low.

Low awareness about the exit mechanism of the input subsidy

A pertinent risk for the viability of the programme outcome is the expectation that the input subsidy will continue indefinitely (World Bank Report No: 48549-TZ). An eligible small-scale farmer was to receive vouchers for three years. However, nearly half of the surveyed respondents did not know the number of years a farmer is supposed to receive the voucher. While 28% knew that a farmer is supposed to receive vouchers for three years, 19% believed that they were supposed to receive vouchers each year in continuation. Half the farmers were not aware of the exact exit strategy of the programme, which could potentially result

in farmers not being prepared to purchase non-subsidized agricultural inputs in the fourth year or the year that follows, probably defeating a crucial objective of the programme.

b. Administrative bottlenecks

One of the prime institutions at the village level responsible for administering the programme is the VVC – Village Voucher Committee (comprised of six farmers in total, with three women and three men elected by the village assembly). The VVC, apart from being responsible for identifying beneficiaries, is also responsible for overseeing the distribution, as well as monitoring the use and redemption of the input vouchers. The key findings below point to particular administrative bottlenecks that have implications for efficient service delivery of the programme.

Land criteria for beneficiary selection not followed completely

The input subsidy was to be aimed at small-scale farmers, i.e. farmers who own no more than a hectare (or 2.5 acres) of land (World Bank Report No: 48549-TZ). However, one in every four beneficiaries owned at least one plot that was more than a hectare. Thus, it is questionable if the selection procedure was devoid of any bias, as the land criterion is crucial in identifying whether a farmer is small-scale or not.

Village Voucher Committee officials asked the farmers if they could afford the required top-up

One of the main criteria to be eligible for the subsidized vouchers was that the farmer should be 'willing and able' to co-finance half the cost of the voucher inputs (World Bank Report No: 48549-TZ). Nevertheless, village voucher committees/ village officials/ hamlets did not ask 60% of the beneficiary households if they would be able to afford the cost of the top-up.

The village officials in the Ruvuma region scored the highest percentage (58.1%) for inquiring whether or not farmers can afford the top-up. Morogoro and Kilimanjaro scored the lowest in inquiring the same from the small-scale farmer households. This indicates a loophole in the administrative process of identifying the eligible farmers and excludes

farmers who could have otherwise been able to afford the top-up and in effect potentially increase the aggregate production.

Lack of physical possession of vouchers coupled with inability to purchase the inputs

Regulation of delivery has been identified as a key component for efficient agricultural service (Smith, 2002). In the context of NAIVS, the nature and timing of the delivery of the input vouchers are essential for achieving the desired outcome of increased production (World Bank Report No: 48549-TZ). A third of the respondents did not physically possess vouchers, and a small portion of the respondents (11%) received a paper certificate to use in lieu of the vouchers when the vouchers were delayed in the 2011/12 season. Out of the households that received paper certificates due to the delay, nearly half were unable to purchase the subsidized inputs, as the agro-dealer did not accept the paper certificates.

1. The regions where the household data were collected are Arusha, Kilimanjaro, Morogoro, Ruvuma, Iringa, Mbeya, Rukwa, and Kigoma.
2. Market Smart Subsidy: "*Morris et al. (2007) identifies aspects of a smart-market subsidy: (i) promotes the factor or product as part of a wider strategy that includes complementary inputs and strengthening of markets; (ii) favors market-based solutions that do not undermine incentives for private investment; (iii) promotes competition and cost reductions by reducing barriers to entry; (iv) insists on economic efficiency as the basis for fertilizer promotion efforts; (v) recognizes that effective demand from farmers is critical for long-run sustainability; (vi) devises an exit strategy to limit the time period of public interventions; (vii) emphasizes sustainability as a goal when designing interventions; (viii) promotes pro-poor growth, in recognition of the importance of equity considerations; (ix) empowers.*"

Weak agricultural extension service

Farmers entering the scheme had to be willing to utilize the inputs following the recommendations provided by the extension service. However, a minority of the surveyed beneficiaries (12%) received advice from the extension service. In

general, the demand for agricultural extension advice was high: 75% of the surveyed respondents needed it, whereas only 10% received it. Out of those who received it, the top two sources of agricultural extension advice were the government and the farmer peer group, and a majority of them claimed that they did apply the advice in practice.

Policy Recommendations

- a) If the government plans to scale-up the programme, it should focus on strategies for increasing awareness of the programme's specific criteria and objectives. While awareness of the general existence of NAIVS was high, awareness of the selection criteria and the exit strategy was low, particularly in a few regions. To achieve sustained adoption of technologies for crop production, the farmers should clearly be aware of the exit mechanisms of the subsidy programme so they will be prepared to continue using the inputs once the subsidy is withdrawn.
- b) While the government's and farmer peer group's role in providing extension advice is relatively strong, there is potential for enhancing private extension service networks. A majority of the surveyed households reported their need for extension advice. Without the knowledge of how to utilize the inputs in practice, and without market information support, it would be difficult for farmers to adapt to changes in technology.
- c) To address the loophole in the delivery chain, it might be worthwhile for policy-makers to reconsider exploring whether mobile e-vouchers could have any positive impact on the efficiency of the delivery and tracking system of the agricultural input subsidies in Tanzania.
- d) The coordination between the private sector stakeholders and public sector stakeholders requires attention towards effective programme administration. For instance, coordination and better communication between the agro-dealers and the village committees/regional voucher committees in the case of voucher delays could have helped in accepting the paper certificates in lieu of vouchers.

Conclusion

In its budget, the Government of the United Republic of Tanzania has invested heavily in NAIVS, with the aim of accelerating food production by promoting the adoption of fertilizers and improved seeds. While the programme may have increased aggregate maize production, key challenges still persist. There is a need to improve the programme's targeted awareness in order for farmers to have a more informed, participatory role in the process of identifying eligible households. It is also essential for the government to focus on improving the programme's service-delivery strategies if it is to be expanded.

References:

- Akramov, K. T. (2009). *Decentralization, agricultural services and determinants of input use in Nigeria* (Vol. 941). Abuja: International Food Policy Research Institute.
- Bardhan, P. & D. Mookherjee. (2000). Capture and governance at local and national levels. *The American Economic Review* 90(2), 135–139.
- Bardhan, P. & D. Mookherjee. (2006). Decentralization, corruption and government accountability. *International handbook on the economics of corruption*, 161-188.
- Crawford, E., V. Kelly, T. S. Jayne, & J. Howard. (2003). Input use and market development in Sub-Saharan Africa: An overview. *Food Policy* 28(4), 277–292.
- Crawford, E. W., T. S. Jayne, & V. A. Kelly. (2006). Alternative approaches for fertilizer use in Africa. Agriculture and Rural Development Discussion Paper No. 22. Washington, DC: The World Bank.
- Galasso, E. & M. Ravallion. (2005). Decentralized targeting of an antipoverty program. *Journal of Public Economics* 89(4), 705–727.
- National Bureau of Statistics, United Republic of Tanzania. (2002). Household Budget Survey 2000/01.
- Smith, S. R. & K. A. Gronbjerg. (2006). *Scope and theory of government–nonprofit relations. The nonprofit sector: A research handbook* (2nd Edn.). New Haven: Yale University Press.
- World Bank. (2000). *Agriculture in Tanzania since 1986: Follower or leader of growth?* Washington, DC.
- World Bank. (2009). *Accelerated food security program of the United Republic of Tanzania under the global food crisis response program*. Report No: 48549-TZ.

Acknowledgements

Blandina Kilama, Cornel Jahari, Samwel Ebenezeri, Thadeus Mboghoina (REPOA), David Rohrbach, Rosalie Ferraro (The World Bank)



REPOA

157 Mgombani Street, Regent Estate
P. O. Box 33223 | Dar es Salaam | Tanzania
Tel: + 255 22 2700083 | Cell: +255 75 409 1677 | Fax: + 255 22 2705738
Website: www.repoa.or.tz | Email: repoa@repoa.or.tz