

The Need to Reform the Fertilizer Support Programme (FSP)

There is widespread agreement in Zambia that the Fertilizer Support Programme needs to be reformed if it is to effectively contribute to broad based agricultural growth and poverty reduction as well as to achieve greater impact from the development subsidy in this growing GRZ budgetary allocation. To gain information for the reform debate, the Ministry of Agriculture and Cooperatives (MACO), working with the Agricultural Consultative Forum and the Food Security Research Project, undertook an analytical review of the Zambian fertilizer sector, and also studied fertilizer sector development experiences in Kenya, Tanzania and Malawi.

This review article highlights some key findings and identifies some of the major areas requiring further discussion and agreement in order to develop an improved FSP that will facilitate the development of a sustainable fertilizer marketing system. The section below briefly highlights the key findings and recommendations by the stakeholders. The “ACF/FSRP Study Tour Policy Advisory Note” and other related materials can be found at:

(http://www.aec.msu.edu/fs2/zambia/ACF_FSRP_News_FSR_Reform_Overview.pdf)

Key Findings

- Little overall progress in raising maize productivity, the principal crop targeted in FSP;
- Poor targeting of farmers/beneficiaries to achieve the programme’s food security objectives;
- Delays in input distribution beyond recommended application dates which significantly reduces the effectiveness of both seed and fertilizer use;
- Poor fertilizer use efficiency among many targeted farmers due to poor and/or missing crop management practices, recommended conservation farming practices, and use of complementary farming inputs;
- Inconsistency in FSP policy implementation such as the reversal of plans to gradually reduce the subsidy level;
- Broad private sector participation in input distribution has not been achieved;
- Poor monitoring of the programme’s implementation and impact;
- Concerns about the programme’s long-term sustainability.

Key Recommendations

- Change FSP name to Farmer Input Training Support Programme in order to reflect complementary inputs and practices such as seed, improved farm management through training and extension
- Programme should have a foundation of strengthened links to training in order to benefit farmers through upgraded extension services as well as agro-dealer training in yield enhancing technologies such as conservation farming technologies and appropriate input application practices.
- Programme should employ a flexible (electronic) Input Voucher System and its implementation should be immediately.
- Over the longer-run diversify the input pack to include other seed and the pack size should start at ½ hectare and a farmer can access up to two packs. In the first year of implementation keep the programme as simple as possible by reducing the pack size, restricting to inputs such as fertilizer and seed.
- Selection/targeting of farmers should be done at the community level using the farmer register and MACO camp officers.
- A given beneficiary shall access The Farm Input Training Support Programme for consecutive seasons only, and the subsidy is to start at 50% for first season and reduce to 25% in the second season. New entrants benefiting in subsequent years will follow the same subsidy structure of 50 % in the first year and 25 % in the second year.

- Graduation is assisted by improved farmer knowledge and better payoff to the farmers own investment in improved input use. Linkages are also to be encouraged to Micro Financial Institutions and banks with rural coverage such as ZANACO and Finance Bank. Camp Officer and agro-dealer training of farmers will continue after graduation.
- Improved M/E to determine effects of the support programme and to make mid-course adjustment to better achieve objectives, which has lacked in FSP implementation

What is really happening on the ground? The need for farm household analysis

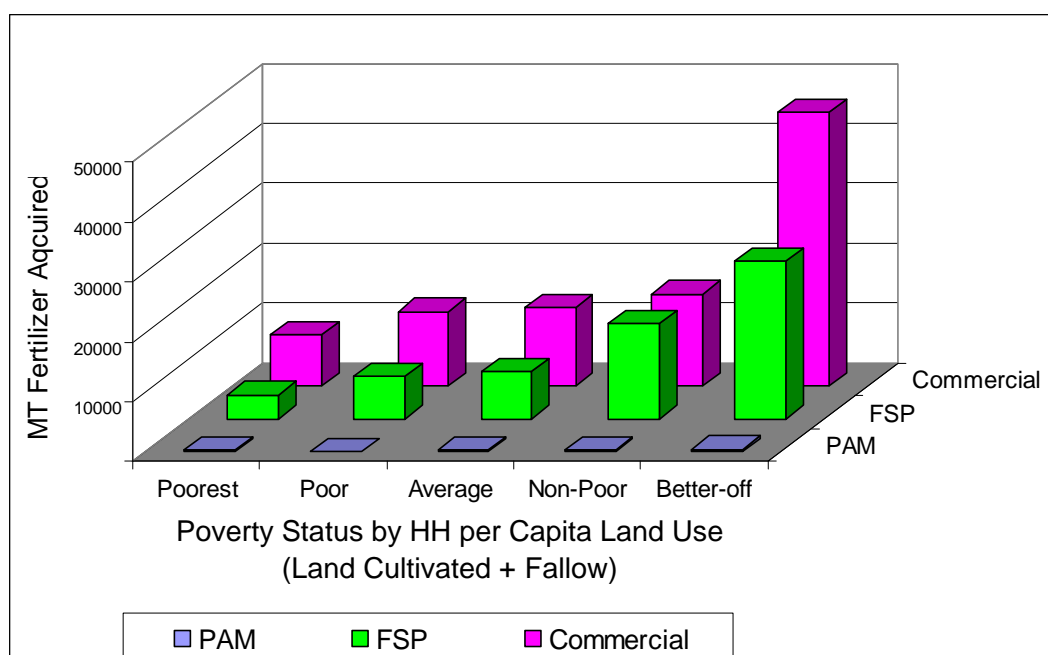
In order to evaluate a programme such as FSP, rural agricultural survey information from 2004 and 2008 can be used. These data, collected across the entire country by MACO, the Central Statistical Office, and the Food Security Research Project, help identify production and marketing patterns among smallholder farmers, including information on the various sources of fertilizer being used, and information on subsequent crop production and marketing.

This analysis is reported for different groups of smallholder farms according to their farm size, because the amount of land which a household controls is a major indicator of wealth as well as being one of the major factors associated with fertilizer use and the quantity of crops produced. On average, farm sizes in Zambia range from .08 ha per person in the household to around 1 ha per person in the family. These measures translate into average whole- farms ranging from roughly a half hectare to over 4 ha. The results highlighted below are based on quantities of fertilizer used on maize in the 02/03 and 06/07 agricultural seasons ranked from low to high and by quintiles (5 groups: poorest, poor, average, non-poor and better off) of household per capita land use (hereafter referred to poverty status).

Most FSP fertilizer goes to the better-off farmers with the most land area, who obtain most of their fertilizer through private traders

Most of the fertilizer used by smallholders is purchased from private traders (Figure 1). FSP is the second most important source of fertilizer, while small quantities of fertilizer are provided to vulnerable households under the Food Security Pack, implemented by the Programme Against Malnutrition (PAM).

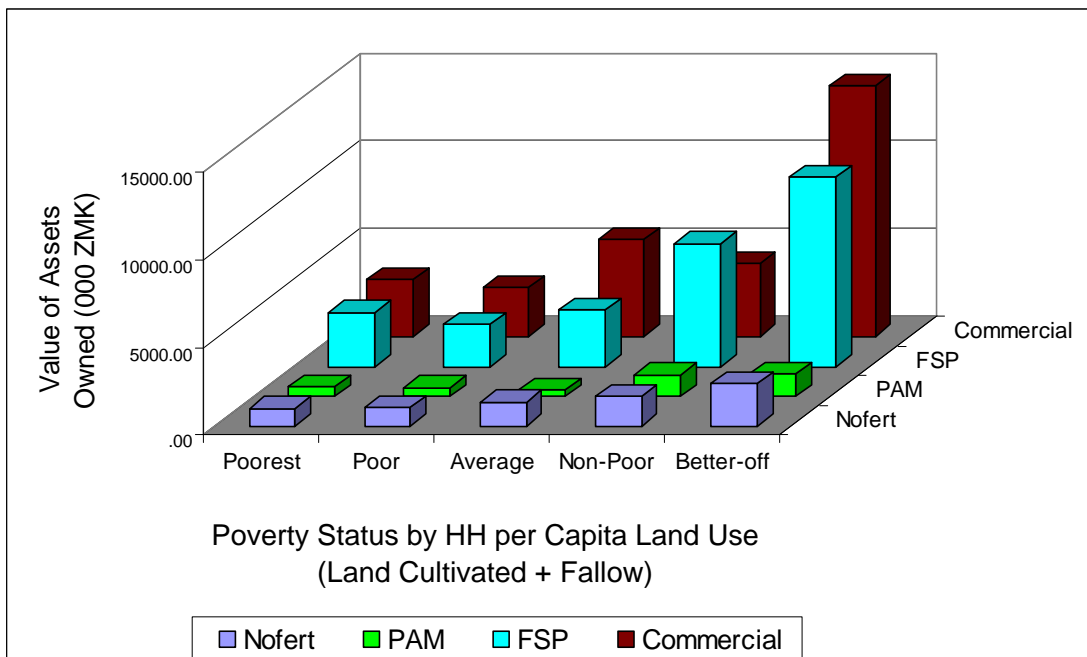
Figure 1: Fertilizer Acquired by Source and Poverty Status, 2006/2007 Agriculture Season



Source: CSO/MACO/FSRP 2008 National-Level Supplementary Rural Livelihood Survey

Ownership of key assets such as farm hand tools, implements and livestock, were recorded and valued in the rural surveys and serve as a measure of wealth and level of purchasing power. Not surprisingly, the ability to acquire commercial fertilizer among smallholders is strongly associated with asset ownership (Figure 2). The better-off smallholder farmers (5th group), who also have the most land area, receive about 43% of the FSP fertilizer. In addition, these farmers obtained even more fertilizer from private traders. This raises the question whether these better-off smallholders would be able to procure all their inputs from the commercial market. If so, this would allow more FSP supplies to be targeted to smaller farmers with agricultural potential who have inadequate purchasing power.

Figure 2: Asset Holding by Poverty Status and 2006/2007 Agriculture Season Fertilizer Source

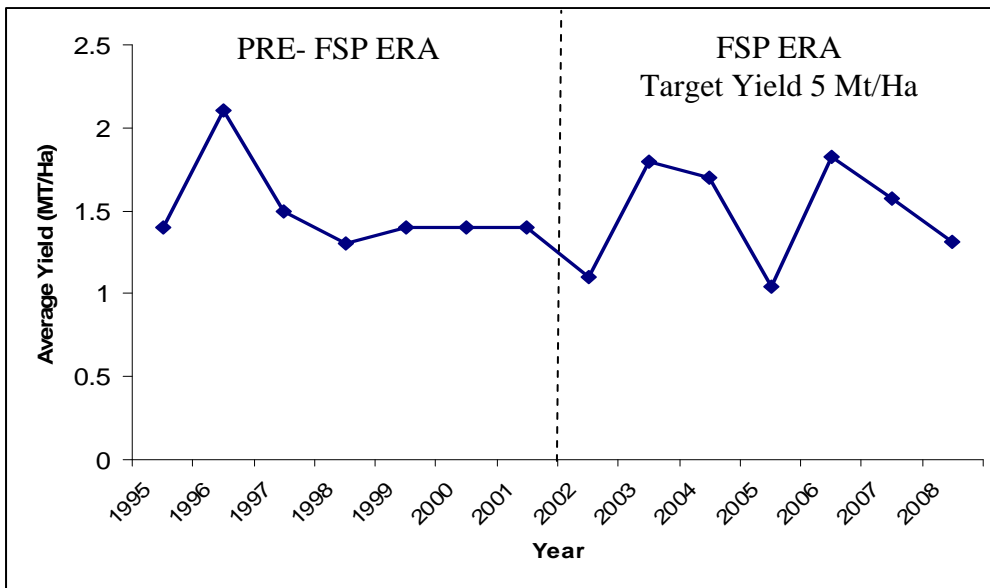


Source: CSO/MACO/FSRP 2008 National-Level Supplementary Rural Livelihood Survey

Maize yield improvements are disappointing

FSP has been in operation for seven years since 2002/2003 agricultural season but maize yields have remained stagnant, the 5 metric tones target is far from being attained (Figure 3). Yields among all fertilizer users went up by a disappointing 5 % to 2.1 mt/ha during the period 2003 – 2008. Farmers who did not use fertilizer experienced an 8% decline over the same period, with an average yield in 2008 of 1.2 mt/ha. Farmers with a small land area had a much more impressive performance improvement from using fertilizer. This is related to the relatively high incremental yield from fertilizer when starting out with low yield and low soil fertility. It is also believed that farmers on smaller plots of land are able to dedicate more labour and effort to crop husbandry to complement the use of fertilizer. The disappointing overall yield improvement results raise many questions about the approach and implementation of FSP. The poor results highlight the importance of incorporating the use of complementary inputs, such as improved seed; the need for timely fertilizer availability and application; improved crop management practices; and training in all of the above.

Figure 3: Maize Production Trends Pre-FSP and FSP Era

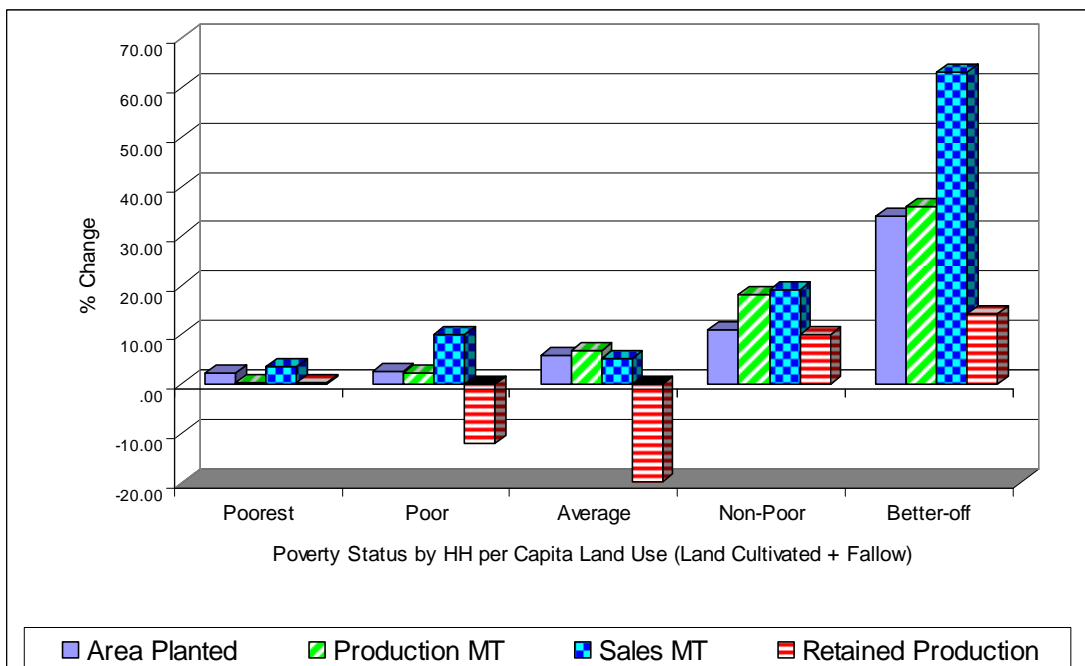


Source: MACO/CSO Crop Forecast Data 1995 - 2008

Has the maize sector improved over time?

Performance of the maize value chain at the farmer level can be assessed by considering a number of indicators, e.g. area planted, production, sales, and on-farm retentions. Among the poorer households, on-farm maize retention and consumption have actually gone down from 2003 to 2008. In contrast, there were significant improvements for the better-off households who increased area planted and production by over 30%, and maize sales by 60% over the 4 year period (Figure 4).

Figure 4: Zambia Maize: Changes in Household-Level Indicators (From 2003/04 to 2007/08 Marketing Season)



Source: CSO/MACO/FSRP 2008 National-Level Supplementary Rural Livelihood Survey

Improving the programme requires a focus on redefining the target group and enhancing programme implementation

There is a clear need to redefine targeting objectives. Which farmers are to be given priority assistance? And which smallholders are most able to help themselves? Another question is how to wean off assistance to beneficiaries after 2 or 3 rounds of assistance? If GRZ subsidized inputs are given repeatedly to largely the same farmers who could purchase these inputs with their own funds, government's investment is simply displacing private sector sales, while the use of fertilizer at the national level will not change. Likewise, if farmers are not assisted and trained to combine subsidized inputs with other productivity enhancing measures (such as improved soil and agronomic management practices), experience shows that there is little hope for progress in changing overall agricultural productivity.

Discussions on mechanism for improved targeting of farmers are ongoing. One suggestion is for targeting to be implemented at the MACO Camp-level in order to achieve better control on beneficiary selection and monitoring. This could be achieved by working from a complete listing (registry) of smallholder farmers (already in the works), and by making MACO Camp Extension Officers and other local representatives responsible for selecting targeted farmers based on agreed upon programme goals and farmer attributes. Practical criteria for selecting targeted farmers from the completed camp-level lists need to be developed.

Input vouchers were also reviewed as an option to provide assistance to farmers. Voucher can be one strategic component of a set of initiatives to train smallholder farmers and to transfer purchasing power to some of them. Properly used, vouchers can also provide a tool and an incentive for agro-input dealers to develop and expand their businesses. This development was vivid in Tanzania and Kenya.

In Zambia there is also growing experience and interest among selected stakeholders with e-vouchers implemented via SMS/cell phones, which are a cutting edge tool for assisting in implementation of targeting, and for carefully verifying and monitoring the delivery of services and products. Lack of accountability and monitoring is one of the principal problem areas of the existing FSP. As conceived in FSP study tour deliberations, each electronic voucher could have a unique number and would be allocated to a unique beneficiary selected in a specific Camp. Building up from the Camp-level, the voucher management system potentially implemented by SMS and computer assisted management oversight in District, Provincial and National Offices could hopefully improve the ability of GRZ to control the use and payment/reimbursement of inputs acquired through a voucher

In view of the aforementioned, it is important that discussion needs to continue on these and related issues to reach a plan for sustainable reform well before the 2010/11 agricultural season.

Aug 25, 2009. By the [Food Security Research Project](#) and the [Agricultural Consultative Forum](#).