

New Alliance Policy Acceleration Support: Malawi (NAPAS: Malawi)

Draft of 16 March 2015 Department of Agricultural Planning Services Ministry of Agriculture, Irrigation, and Water Development

Redesigning the Farm Input Subsidy Programme for Malawi

Flora Nankhuni and Athur Mabiso

Introduction

Since the 2005/06 agricultural season, the Government of Malawi has made the Farm Input Subsidy Programme (FISP) the major pillar of both the country's agricultural development strategy and its social protection strategy. While the impact of the programme has been mixed, recent empirical evidence supports its continued implementation, albeit, with a number of reforms to enhance its contribution to agricultural and economic growth. Considering the importance of FISP to national agricultural policy, this note reviews the salient issues that must be considered in redesigning the programme, drawing on recent evaluation literature, preliminary results of the ongoing National Agricultural Policy (NAP) consultations, consultation with MoAIWD staff, and results of the July 2014 FISP symposium that was organized by the Lilongwe University of Agriculture and Natural Resources (LUANAR) and the Malawi Strategy Support Programme of the International Food Policy Research Institute (MaSSP-IFPRI). Our aim in drafting this note is to identify key lessons learned from FISP implementation so far and to highlight reforms to the programme that could be undertaken to unleash the programme's full potential for achieving Malawi's development goals.

FISP Performance

Malawi's experience with the provision of subsidized inputs has been widely acclaimed and in some cases credited to have helped to kick-start a Green Revolution in Malawi (Denning et al., 2009). Since implementation of FISP began, the country has experienced a significant increase in maize production, as well as an increase in maize self-sufficiency for many households (Carr, 2014; Chirwa and Dorward, 2013). Despite such successes, however, numerous concerns have been expressed regarding the programme's ability to reduce poverty and to enhance food security (Pauw and Thurlow, 2014; Tafirenyika, 2013). The programme's rising costs and its opportunity-cost effects on public expenditures vis-à-vis other essential agricultural and non-agricultural public services are troubling (Douillet et al., 2012).

While there has been much concern about FISP sustainability and increasing debate about exit strategies and policy alternatives, the available empirical evidence on FISP performance is mixed. One cannot build a strong argument from that evidence to simply dismiss the FISP as an economic failure. Some researchers found, for example, that the estimated direct benefits of the programme were not statistically different from the estimated costs, implying a benefit to cost ratio of close to, if not less than 1.0 (Jayne et al, 2013). In contrast, other studies that include in the accounting of costs and benefits the effect of the programme on food prices, rural wages, and production



spillover effects – so-called second-round effects – show more positive impacts overall (Pauw and Thurlow, 2014). An "economywide" benefit-cost ratio for FISP is estimated to be up to 60 percent higher than a benefit-cost ratio that considers only the direct production effects of the programme (Arndt et al., 2013). However, given the significant costs of FISP on the annual budget of government, the opportunity costs of the programme cannot be ignored: In spite of a favorable economy-wide benefit-cost ratio, there may well be significantly more effective ways to use public resources to achieve Malawi's development ambitions than through a large crop input subsidy programme like the FISP.

Regardless of the mixed evidence on the benefit-cost ratio of the programme, participants at the FISP symposium (175 stakeholders) were of the opinion that the FISP programme could be implemented in a more efficient manner to achieve higher benefits. Recent evidence and debate around FISP implementation and impact provides a number of policy reform options that could enable the programme to better contribute to the country's economic growth and other development aspirations (LUANAR/MaSSP 2014).

FISP Reforms

1. Defining the objective of FISP

The FISP symposium (LUANR/MaSSP 2014) raised a number of issues with the design of the FISP. The most central of these was "What is the objective of FISP?" If the objective of the programme is to provide for the welfare of the rural poor, then a different set of FISP reforms should be pursued than would be pursued if the objective of FISP is to transform agriculture in Malawi from being subsistence-oriented to being a more commercially-oriented sector. If the latter objective is to be prioritized, then central to any redesign of FISP would be that it targets "productive" farmers or those that have high potential to be productive. The beneficiaries of such a redesigned FISP would certainly not be the poorest of the poor in rural Malawi.

The welfare of the poorest in rural Malawi would likely be more effectively addressed by a social safety net programme, rather than through production-focused input subsidies. Such a programme would be better managed by those ministries responsible for social welfare issues, such as the Ministry of Gender, Children, Disability and Social Welfare and the Ministry of Economic Planning and Development.

This brief assumes that the objective of the FISP is *to transform Malawian agriculture from a predominantly subsistence orientation to a commercially oriented one that enhances economic growth and development.* This implies that FISP must be redesigned to better assist farmers increasingly engaged in higher-yielding and more specialized production, as part of profitable and efficient agricultural value chains that involve significant value-addition and sharply increased trade.

2. Targeting of FISP beneficiaries

Anecdotal evidence from ongoing NAP consultations shows that many of the poorest farmers allocated FISP coupons at MK 500 sold the coupons to productive farmers¹ for between MK 1,000 to MK 12,000. The benefit of FISP for these poor farmers was the cash transfer of between MK 500 and MK 11,500 per bag, less their transaction costs in selling the coupon. To derive greater welfare and economic benefits from FISP, this implies that MoAIWD needs to design a mechanism for targeting productive farmers. Most such farmers have been obtaining subsidized fertilizer all along. However, they have done so probably at a larger subsidy cost to

¹ Those with land and available labor and capital to produce.



government than originally intended and certainly at a greater cost to government than is necessary for such relatively better-off farmers to participate in the programme.

Poorer farmers, including the elderly, and landless rural households could be targeted for other interventions, such as cash transfers or other social safety net programmes. Research on "Protection to Production" shows that cash transfers can help households to overcome credit constraints and manage risk (PtoP, 2014). Receipt of cash transfers, in turn, can increase levels of productive investment by recipient households, increase their access to markets, and more generally stimulate local economies. In particular, cash transfers can serve as a means of promoting farm and household-level production gains through increased demand for farm produce, thereby stimulating demand by productive farmers for inputs. Some cash transfer programmes elsewhere have explicit linkages to agriculture and rural livelihoods, such as the Productive Safety Net Programme (PSNP) in Ethiopia and the FAO-led Somalia cash for work programme.

The Ministry is currently proposing a rotational lottery system for the FISP, whereby farmers with not more than 10ha will be eligible to benefit from the FISP. This will involve first establishing a comprehensive registry of all maize farmers in Malawi that will be maintained at the Ministry headquarters. The government will then determine what proportion/number of farmers will be targeted each year, and will randomly sample beneficiaries at the village level each year then communicate and publish to the villages the lottery winners. In the second year, the first-year winners will not be part of the pool of farmers to be sampled. The same exercise will continue until all eligible smallholder farmers with less than 10ha in each village have had a chance to benefit from the FISP.

A recommendation is that there is need for rigorous analysis to determine the appropriate targeting mechanism to reduce the crowding out of fertilizer purchases by able farmers (Jayne et al., 2013). In this system, the Ministry also needs to figure out what to do when a beneficiary that is picked by the lottery is too poor to afford redeeming the coupon at 50% of the market value. One possible option is to excluded such a farmer from the FISP population but ensure that they are enlisted for a cash transfer program or an alternative food assistance program.

It is also recommended that the identification of farmers and compilation of the farmer registry needs to be started right away and should involve validation to ensure transparency and account-ability. Since this is a major change in the administration of the FISP the government may need to devote significant efforts to sensitize the public and disseminate information about the new program design and its benefits. Recent evidence shows that providing the public with information about a subsidy programme as well as the list of beneficiaries at the village level, improves the transparency and effectiveness of the subsidy programme (Banerjee et al., 2015).

3. Level of FISP subsidy

A government document reported that "during the programme inception year in 2005/2006, farmers contributed MK950 per 50Kg bag of fertilizer against a commercial price of MK2,100 which represented about 45% farmer contribution. During the 2014/2015 season, the average commercial price of fertilizer is MK16,000, which means that the MK500 farmer contribution represents only 3% of the commercial price. In addition, each beneficiary accesses either 8Kg Hybrid or 8Kg OPV maize seed at a maximum of MK150 and a 2 or 3Kg pack of legume seed for free when these input packages cost Government about MK5,500 and MK3,000 respectively



(MoAIWD 2014a). This high level of FISP subsidy has opportunity costs on all other functions of MoAIWD that together received only 56% of MK154.2 billion of the revised Ministry budget for 2014/15 (2014/15 Mid-Year Budget Review – MoFEPD).

Some degree of consensus was reached at the FISP Symposium that the amount that productive farmers should pay for each 50 kg bag of fertilizer received under FISP should rise from the MK 500 to between MK 5,000 and MK 6,000 to reflect real price increases over time and to improve the financial sustainability of the programme. There has also been suggestions to increase the price paid by farmers to 50% of the market price (MoAIWD 2014). This will achieve two things. First, this higher price will lead to more self-targeting of more productive and resource-ful farmers, as the price barrier will screen poorer farmers from participating in FISP. Secondly, a lower subsidy will reduce the fiscal cost of the programme to government. It should be noted here that most of the "productive farmers" are also "poor" but may not necessarily be the "ultra poor".

4. Graduation from FISP

It may be prudent to expect beneficiary farmers to graduate from the FISP after some time. One approach of promoting graduation is to link FISP investments with market development efforts for increased farm incomes. This is an issue that came up during the NAP consultations. Farmers that were consulted deliberated on the possibility of using some FISP resources to organize farmers into strong cooperatives, to better link them to markets for their produce. It was felt that even if FISP inputs enabled farmers to produce more maize, the resultant higher maize supply on the market depressed maize prices to the extent that FISP did not seem lead to significant improvement in farmers' incomes. The feeling was that enhanced access to markets would help improve farmer's incomes and eventually help them to graduate out of FISP. Another approach to encouraging farmer graduation from the FISP is to subsidize farmers over a continuous period (e.g. 3-5 years) so that they build up resilience and accumulate enough assets to sustainably produce without FISP support in the future. If a rotational lottery system is to be adopted as a targeting mechanism for FISP, it may limit the ability of farmers to graduate from FISP. Therefore the government should consider aspects of the "Tanzania Model" where eligible farmers are subsidized over a 3 to 5 year period, after which they graduate and become eligible for a separate farm input loan arrangement under an agricultural financial services programme. Such a loan programme could incorporate a weather-indexed farm income insurance component to further enhance their resilience to shocks.

5. Complementary investments to the FISP

The agronomic performance of the programme could be improved through provision of sufficient advisory services to farmers through extension programmes on the proper use of FISP inputs together with the appropriate agronomic management of their crops for increased productivity and profits. Beneficiary farmers could be provided with incentives to employ complementary Integrated Soil Fertility Management (ISFM) practices such as maize-legume intercropping and rotations and the incorporation of manure and other organic materials into the maize crop production for increased long-term soil health. Such practices have the potential to contribute to improved fertilizer (nutrient) application use efficiency and, hence, to the overall agronomic and economic performance of the programme.

6. Zoning and Crop Diversification under FISP

Given that the FISP has largely targeted maize production throughout the country, the returns to FISP investments have varied by agroecological zone since certain areas, particularly in the Central region of



Malawi, have both an agro-ecological and an economic comparative advantage in maize production and marketing. Thus, it is proposed that the FISP should target crops that have a comparative advantage in each locale. For instance, high-yielding aromatic Kilombero rice seed varieties could be targeted in rice producing areas such as Karonga, while clean cassava cuttings could be subsidized for increased cassava starch production in Nkhata Bay. This could be implemented on a pilot basis with clear impact evaluation protocols to facilitate learning from the experience, before scaling up is done throughout the country. We note that such zone-targeted FISP sub-programmes would not necessarily focus on the provision of inorganic fertilizer, particularly in those zones or on those crops for which it is clear that inorganic fertilizer cannot be profitably used by smallholder farmers.

7. Procurement process for the FISP

Timing of procurement

The government fiscal year, which starts July 1, poses a constraint to efficient and economical input procurement. Funds for government to purchase the FISP inputs need to be made available several months before July if the inputs are to be delivered to beneficiaries before the planting season. To address this bottleneck, government could revert to its former fiscal year of 1 April to 31 March or follow the calendar year (1 January to 31 December) to ensure that the procurement process of FISP inputs begins in a timely manner. The most critical factor in this regard is for government to release funds before the start of the current government fiscal year in order to enable timely procurement and distribution. This would also allow procurement from the international markets to take place when prices are at their seasonal low.

Modality of procurement

Within the FISP setup, seed provision has primarily been the responsibility of the private sector. Considering the relative success of the seed procurement process undertaken by the private sector for FISP, the government should seriously consider extending fertilizer procurement responsibilities to the private sector as well.

It is proposed that only firms with demonstrated capacity to deliver fertilizer and seed to the last mile, even in the remotest parts of the country, should be awarded tenders to procure and distribute inputs under FISP. Currently, there are cases where smaller firms that have won government tenders have actually procured the fertilizer from the larger firms. This practice has resulted in delays or even failure to honor the agreed quantities in the tender (MoAIWD 2014b). Given challenges experienced in 2013-14 with fertilizer suppliers and distributors, the Ministry is now proposing to use only 6 reputable firms to procure, distribute and sell fertilizer to farmers. Nevertheless, in the spirit of promoting competition, efficiency, and lower prices in the fertilizer markets, government should consider continuing to promote an increased number of firms in the fertilizer market for the future.

Conclusion

This note has drawn on the evaluation literature, results of the LUANAR/IFPRI July 2014 FISP Symposium, and preliminary information resulting from the ongoing NAP consultations. From these sources, we have developed recommendations for reforms to improve the performance of FISP. While these reforms have the potential to improve the efficiency of the programme for enhanced economic and agricultural growth, the empirical literature also highlights the need to continue exploring how the development outcomes desired through the FISP might be achieved through alternative policy mechanisms, including those that are less prone to weather or price risk. Such policies could be within the broader sphere of agricultural policy (i.e. irrigation and rural infrastructure, market linkages and development, credit provisioning and insurance, or research and extension services) or outside the ambit of agricultural policy (i.e. cash transfers, infrastructure investments, and other public works). These opportunity costs and outcomes under policy alternatives need to be better understood and quantified.



References

- Arndt, C., K. Pauw, and J. Thurlow. 2013. "The economywide impacts and risks of Malawi's Farm Input Subsidy Programme" Presented at 4th International Conference of the African Association of Agricultural Economists, Hammamet, Tunisia, September 2013. (<u>http://ageconsearch.umn.edu/bit-</u> stream/160671/ 2/Channing%20Arndt,%20Karl%20Pauw%20and%20James%20Thurlow.pdf).
- Banerjee, A. Hanna, R., Kyle, J., Olken, B. A., & Sumarto, S. 2015. The power of transparency: Information, Identification Cards and Food Subsidy Programs in Indonesia. NBER Working Paper No. 20923: <u>www.nber.org/paper/w20923</u>
- Carr, S., 2014. *The challenge of Africa's nitrogen drought. Some indicators from the Malawian experience*. MaSSP Policy Note 19. Lilongwe: International Food Policy Research Institute, Malawi Strategy Support Program. (<u>http://www.ifpri.org/sites/default/files/publications/ massppn19.pdf</u>).
- Chirwa, E.W., and A. Dorward. (2013). *Agricultural input subsidies. The recent Malawi experience*. Oxford: Oxford University Press. (<u>http://www.oapen.org/download?type=document& docid=455811</u>).
- Denning G, P. Kabambe, P. Sanchez, A. Malik, R. Flor, R. Harawa, P. Nkhoma, C. Zamba, C. Banda, C. Magombo, M. Keating, J. Wangila, and J. Sachs. 2009. Input subsidies to improve smallholder maize productivity in Malawi: Toward an African Green Revolution. *PLoS Biol* 7 (1): e1000023.
- Douillet, M., K. Pauw, and J. Thurlow. 2012 *Macro evaluation of program impacts and risks: The case of Malawi's Farm Input Subsidy Programme (FISP)*. Paper presented at the annual conference of the Center for the Studies of African Economies (CSAE), March 2013. Oxford, UK. (<u>https://editorialex-press.com/cgi-bin/conference/download.cgi?db_name=CSAE2013& paper_id=863</u>).
- From Protection to Production Project (PtoP). 2014. From protection to production: The role of cash transfer programmes in fostering broad-based economic development in sub-Saharan Africa. Rome: Food and Agriculture Organization of the United Nations. (<u>http://www.fao.org/fileadmin/user_up-load/p2p/ Documents/PtoP_short_description_11feb14_01.pdf</u>).
- Jayne, T.S., D. Mather, N. Mason, and J Ricker-Gilbert. 2013. How do fertilizer subsidy programs affect total fertilizer use in sub-Saharan Africa? Crowding out, diversion, and benefit/cost assessment. *Agricultural Economics* 44: 687-703
- LUANAR/MaSSP. 2014. *Eight years of the FISP-Impact and what next*? FISP Symposium brief. Lilongwe: Lilongwe University of Agriculture and Natural Resources (LUANAR) and IFPRI Malawi Strategy Support Program (MaSSP). (<u>http://massp.ifpri.info/files/2014/06/FISP-Symposium-Brief.pdf</u>).
- MoAIWD. 2014a. The Future FISP Concept. Internal Document. Ministry of Agriculture, Irrigation and Water Development (MoAIWD), Department of Agricultural Planning Services (DAPS).
- MoAIWD. 2014b. Final Report on the Implementation of the Agricultural Inputs Subsidy Programme (2013-14).
- Pauw, K., and J. Thurlow. 2014. Malawi's farm input subsidy program: Where do we go from here? MaSSP Policy Note No. 18. Washington, DC: International Food Policy Research Institute. (http://www.ifpri.org/sites/default/files/publications/massppn18.pdf).
- Tafirenyika, M., 2013. What went wrong? Lessons from Malawi's food crisis. *Africa Renewal*. January 2013 edition. (<u>http://www.un.org/africarenewal/magazine/january-2013/what-went-wrong-lessons-malawi%E2%80%99s-food-crisis</u>).
