

Targeting in the Farm Input Subsidy Programme in Malawi, 2006/07 – 2011/12

Andrew R. Dorward and Ephraim W. Chirwa

Background and Context

Targeting, the process of directing subsidised inputs to particular areas and to households within those areas, plays a critical role in the FISP. It involves the implementation of particular *targeting systems* which are intended to deliver particular *targeting outcomes*, the patterns of subsidised input access across areas and households. These affect how inputs are used and hence programme impacts. Targeting is controversial and political, as it determines whether or not, how and how much particular people and groups benefit from the programme. Targeting is also difficult – and the large scale of the programme across the country adds to the challenges and costs in implementing and supervising targeting.

This policy brief sets out targeting issues that emerge from FISP evaluations and suggests criteria and options for improving targeting processes, outcomes and impacts.

Targeting objectives and impacts

Targeting objectives are determined by technical and political programme objectives and understanding of how subsidised inputs are used in different contexts and of how this affects input productivity and its economic and social impacts. Programme objectives are to increase household and national production and food security but may also extend to include food self-sufficiency; beneficiary households' asset building and graduation; improved welfare of vulnerable groups; and wider, inclusive social and economic growth.

Major targeting impacts are affected by four key issues which determine the FISP's effectiveness in achieving different objectives.

Displacement is the process where households' access to subsidised inputs causes them to reduce their purchases of unsubsidised inputs so that the incremental input use from

the subsidy is less than the amount of subsidised inputs received. Displacement rates are affected by beneficiary characteristics, input and output prices, and market access. Analysis of household survey data gives estimates of 22%, 3% and 15% in 2006/7, 2008/9 and 2010/11. All estimates agree that there is less displacement with poorer households. This suggests that to reduce displacement targeting should be aimed at poorer households.

Productivity (incremental production per unit of incremental input used) is affected by beneficiaries' farming skills and knowledge, crop management, application of complementary inputs (such as seed or organic or inorganic fertiliser) and timely planting and weeding. It is also affected by overall rates of input application per hectare and its spread (allowing for both subsidised and unsubsidised inputs), by application timing and methods, by soils and by rainfall. This suggests that targeting should focus on areas with higher productivity potential (as regards rainfall and soils). It is not clear what households should be targeted to get higher productivity – more wealthy households may be able to use subsidised inputs more efficiently as a result of their better use, but there may be trade-offs between displacement and productivity gains.

Economy wide effects of the subsidy programme are mainly from falling maize prices and higher wages with increasing labour and land productivity, leading to wider economic growth. Since higher wages and lower maize prices are particularly beneficial to the poor, promotion of these economy wide benefits is aligned with pro-poor growth objectives. These benefits are affected by targeting through its productivity and displacement effects and by the distribution of income benefits between different types of households in different areas: this affects market and growth linkage and multiplier effects, which are likely to be higher where poorer households are the main beneficiaries.

The implications for targeting are that inputs should be focussed on households yielding the greatest incremental production benefits (with possible trade-offs between higher input

productivity and displacement if less poor households use inputs more productively). Although this corresponds with maximising productivity impacts, concerns for wage and linkage impacts strengthen arguments for more targeting of poorer households and poorer areas.

Graduation occurs when poor, vulnerable households and areas benefit from subsidised inputs with improved assets and livelihood opportunities allowing withdrawal of subsidies without reversion to their former poor, vulnerable state. It is helpful to distinguish between graduation by individual beneficiary households and graduation by the rural economy of specific areas.

The potential for individual beneficiary households to graduate is affected by their characteristics, the number of years and size of subsidy received each year, weather, prices, growth in the wider economy, and working capital accumulation and/or livelihood diversification. Similarly the potential for particular areas to graduate is affected by their characteristics, the number and nature of beneficiary households, the scale of the subsidy per household, and changes in the wider environment (prices, weather, political change, etc). These interact with displacement, productivity and economy wide impacts.

If graduation is being sought, then targeting should try to bring households and/or areas over 'thresholds' above which they can support sustainable adequate livelihoods and growth. This raises a difficult set of questions:

- Is it better to focus limited resources on more households or areas for whom graduation is easier or on fewer poorer households or areas for whom graduation is more difficult?
- What are the graduation thresholds for different households and areas?
- How are households and/or areas for whom graduation is more or less difficult to be identified?

It is clear that even if programme objectives have a relatively simple focus on national food self-sufficiency, targeting has to address difficult trade-offs between higher displacement and possibly higher incremental input productivity among less poor beneficiaries. There are greater and more complex trade-offs if wider pro-poor growth and graduation objectives are also important, requiring more attention to welfare gains,

growth linkages and complex graduation processes among poorer beneficiaries. Determination of ideal targeting outcomes is also made more difficult by other factors:

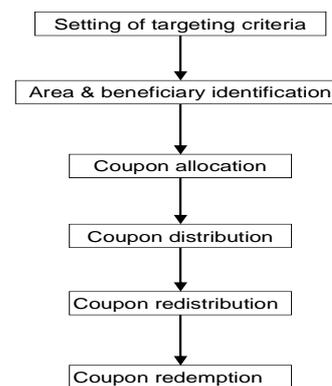
- Objectives may be unclear, contested, highly variable and changeable.
- We have limited information about differences in displacement, input productivity and labour market effects between subsidies provided to different households and areas, and about the relative effectiveness of different graduation strategies.

The effectiveness of subsidies in meeting different objectives for and through different households and areas is also affected by a range of other policies and by macro-economic and other conditions.

Targeting processes and systems

FISP targeting processes can be considered in terms of six main stages (figure 1).

Figure 1 Stages in the targeting system



There have been a number of changes in *beneficiary and area targeting criteria* over the life of the programme. Beneficiary targeting criteria have shifted from an initial focus on 'full time smallholder farmers unable to afford purchase of 1 or 2 unsubsidized fertiliser bags' to put more emphasis on poor and vulnerable groups. There are, however, difficulties in applying these criteria due to ambiguities and tensions among different targeting criteria, difficulties in establishing measures for these criteria, large numbers of deserving households, and lack of understanding and other interests among those conducting beneficiary targeting. Area targeting has also shifted from allocation coupons in proportion to maize and tobacco crop areas to allocation in proportion to farm households.

Allocations to different areas have also been affected by differential rates of growth in registered farm families in different areas, with, for example, very rapid increases in MoAIWD farm family

registrations in the central region from 2005/6 to 2009/10.

Coupon allocation, distribution and redistribution were initially conducted simultaneously within areas. From 2008/9 a three step process was introduced, with farm family registration first, then coupon allocation to beneficiaries in an open meeting, and, also in open meetings, separate distribution of coupons to beneficiaries. A further redistribution in open meetings is widely reported, though not part of the official system. Use of open meetings is generally welcomed by rural people, but does not necessarily mean that they actively take part in targeting: it may be a forum where previously decided lists of beneficiaries are announced. A key factor in open meetings' perceived success appears to be whether coverage has increased or decreased since the previous year. Separation of registration from distribution is seen as helpful as it allows time for people to find out where they stand regarding input allocations. Roles of different stakeholders (Traditional Authorities, VDCs, agricultural extension staff and police) in coupon allocation, distribution and redistribution have varied between years and regions. Considerable differences are reported between coupon allocation and receipt, as a result of (a) changes in allocation before distribution and (b) redistribution of coupons after initial distribution.

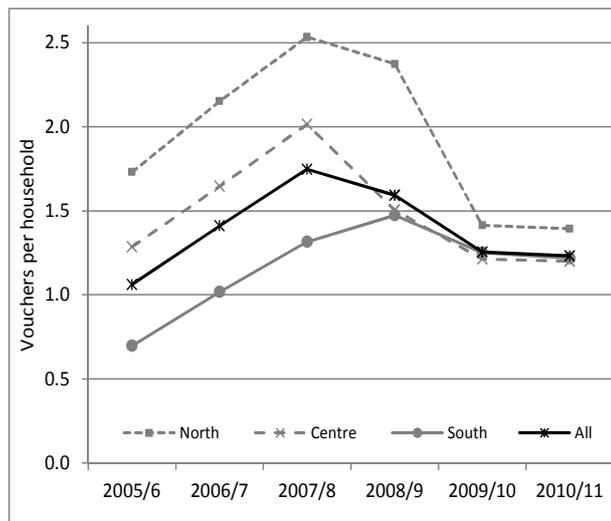
Overall, despite significant the introduction of significant changes to improve beneficiary targeting criteria and processes, there are continuing fundamental difficulties with the lack of clarity in targeting criteria, the large numbers of households satisfying the criteria, and inconsistent application of criteria by local leaders and government staff. These difficulties continue to limit the achievement of desired beneficiary targeting outcomes.

Targeting outcomes

Changes in area allocation criteria have led to changes in coupon distribution between regions, with increases in coupons redeemed in the southern region reducing regional differences in redemptions per household (figure 2).

It appears that districts with higher potential (roughly categorised by altitude) were generally allocated proportionally more coupons than low potential areas in 2010/11, but differentiation fell between 2006/7 and 2010/11. This normally involved reduced

Figure 2 Estimated mean fertiliser voucher redemption per household by region by year



allocations across the board in those districts with lower allocations, not the complete exclusion of significant areas. There is no evidence of greater proportionate allocation to districts with more poor households, although this increased substantially from 2006/7 to 2010/11 due to the shift in relative coupon allocations to districts with larger numbers of poor people in the south.

This should have led to increased subsidy access by poor people and in turn reduced displacement, increased incremental production, and increased maize and labour market effects, benefiting poor non-beneficiaries as well as poor beneficiaries. These should (other things being equal) improve programme effectiveness and efficiency in promoting national and household food production, self-sufficiency, food security, social protection and poverty reduction (for both beneficiaries and non-beneficiaries). These effects may, however, be undermined if incremental production per unit input is lower for new beneficiaries in the south as compared with previous beneficiaries in the centre and north and if targeting of the poor is less effective in the south.

Despite changes in beneficiary and area targeting criteria and processes, household survey data suggest that beneficiary targeting outcomes did not change much from 2006/7 to 2010/11: characteristics associated with less poor households tend to be correlated with greater likelihood of receiving subsidy coupons and (among those receiving coupons) of receiving more coupons. Reported distribution of coupons in open meetings did appear to increase the probability of poorer households receiving subsidised inputs in 2008/9, but there is little other evidence that the proportion of relatively poorer households receiving the subsidy increased. Rural people's

perceptions of targeting outcomes also do not suggest strong targeting to benefit poorer or more vulnerable households, nor any increases in such targeting. There is also evidence of a steady increase in the proportion of households with only one coupon as a result of redistribution, although this is largely the result of increases in the numbers of households receiving coupons in the south, where this practice is most common. Such households show a persistent pattern of poverty, with land, other asset holdings and subjective welfare indicators suggesting they are nearly as poor or sometimes poorer than households not receiving any coupons. This suggests that redistribution occurs with poorer beneficiaries sharing one of their coupons with poorer households without any coupons.

Targeting options

We now consider three possible alternative targeting approaches. We consider first a *universal* but smaller per household subsidy providing 50kg of fertiliser to all households (termed the 'universal programme'), second '*tighter pro-poor targeting*' where the same total volume of subsidised fertiliser is targeted with a 100kg ration to the poorest households, and third '*pro-poor mixed targeting*' where the same proportion of households get 100kg and 50kg fertiliser as in 2010/11, but these are better targeted with the poorest households getting 100kg, less poor households getting 50kg, and the least poor getting none.

Universal provision of 50kg fertiliser is effectively legitimising and extending the widespread practice of redistribution. It has a number of advantages:

- Elimination of targeting costs and difficulties
- Increased transparency and accountability, as all households know their entitlement
- high correspondence between planned targeting outcomes and those achieved
- Increased effectiveness in targeting the poor as compared with 2010/11, as *all* the poor would receive some subsidised inputs.
- Despite some increase in the number of less poor households receiving fertilisers, the total quantity of fertiliser going to less poor households would be similar to 2010/11 as they would receive only one bag per household. This may be seen as offering compensation for lower prices for less poor farmers' surplus maize.

- Reduced demands on coupon allocation and distribution processes may allow earlier coupon distribution, greater farmer confidence in subsidy receipt, and release time for more extension support to farmers.

There are, however, also difficulties with this approach.

- It may appear to be a reversion to the former 'starter pack' approach, although there are substantial differences with the larger scale of the subsidised 'pack' and in its objectives.
- There are concerns that incremental production from a smaller ration of subsidised inputs for each household may not provide poor households with enough productivity gains to 'lift' them over productivity and asset thresholds needed for graduation.
- Graduation could only be achieved if the whole programme were withdrawn from all beneficiaries in an area at the same time. Progressive beneficiary graduation and targeting would undermine the core benefits of universal targeting. However graduation might be pursued by progressive lowering of the subsidy with increasing beneficiary redemption payments.

Tight pro-poor targeting of 100kg fertiliser is broadly the approach currently supposed to be used. If implemented effectively this would provide the lowest displacement and the highest pro-poor growth potential. There are, however, serious difficulties in applying this method, and targeting outcomes do not match aspirations. Improving the implementation of this approach must address current difficulties in both setting and applying measurable targeting criteria.

Mixed pro-poor targeting of 50 and 100kg fertiliser is closest to the approach that is currently actually used, where there is redistribution of subsidy coupons. However, whereas in the current system most redistribution seems to involve sharing by poor recipients with poor non-recipients, a more pro-poor approach would prioritise poorer recipients keeping their 100kg fertiliser allocation, while less poor recipients would get 50kg each, and the least poor would get nothing. While this lacks the strong transparency and accountability of the universal approach, it may provide better targeting and have wider community support than the tight pro-poor approach. It may consequently be more easily implemented – but it will still run up against the interests of powerful people who may be excluded from subsidy benefits, and will still face challenges in setting and applying criteria to identify target households. It might also allow a natural beneficiary graduation system with

households being shifted from a 100kg to 50kg to zero fertiliser allocation.

All systems face major practical challenges in determining the number of eligible farm families in each area while both pro-poor approaches must also address the difficulty of identifying who is poor and not poor. Attention is also needed to processes of coupon redemption, as these can be highly exclusionary to poorer and more vulnerable people. Options include distribution centre committees, more private sector involvement in subsidised input sales (to promote competition), more effective market monitoring and auditing, and better integration with cash transfers for the productive poor who cannot afford redemption payments.

Options for identifying beneficiaries

The development of methods for better identification of targeted beneficiaries is a key requirement for improving targeting, unless it is accepted that difficulties with this (together with power, politics and problems of lack of accountability and transparency) make the universal approach the best practical approach.

Two main approaches may be considered: proxy wealth/income measures, and community targeting. Both these methods

1. require formal identification of targeting criteria and systems that when implemented provide improvements that justify their costs
2. pay insufficient attention to difficulties associated with the large number of households clustered around the poverty cut-off point, and hence local concerns about 'fairness'.
3. need to overcome interests of less poor groups, with enforcement of more transparent and accountable allocation and distribution processes –with open and inclusive processes and/or published recipients lists and allocation criteria.

There is potential merit in the use of proxy poverty indicators, for example, but also major costs and challenges in gathering and using reliable data. Nevertheless, it may be useful to consider and develop alternative ways of implementing this (for example, criteria might be developed by a process of participatory consultations with rural people, and a small number of low cost indicators combined into a points system for household prioritisation in subsidy allocation).

Community targeting with open meetings is the approach supposed to be used for identifying FISP beneficiaries. There is widespread concern that traditional leaders, government officials and others are appropriating coupons and/or directing them to themselves and/or friends and relatives. This perception is promoted by lack of transparency in allocation, misunderstanding of coupon allocations and targeting processes, and widespread belief that there should be more coupons. It may be difficult for targeting to be perceived to be fair if less than around 80% of households are targeted, and community targeting needs fairly costly training and facilitation with checks and balances to stop elite capture.

Conclusions and Lessons

The main conclusion from this paper is that despite substantial changes and improvements in targeting systems over the life of the programme, there are continuing major difficulties in implementing these systems and in improving targeting outcomes and impacts. Major issues concern identification of desired targeting outcomes for maximising achievement of programme impacts, and working out and implementing effective targeting systems. Key issues to be considered in this are the relative importance of productivity, welfare, growth and graduation objectives, and potential impacts of different area and beneficiary targeting outcomes on these.

Targeting needs to be considered in terms of both area and beneficiary targeting. Differences in potential productivity impacts, in welfare gains, and in contributions to wider growth are critical to the setting of targeting objectives. These then have to take account of likely achievement of these objectives with different targeting systems and methods – involving the setting of targeting criteria, establishment of area and household eligibility against these, and consequent allocation and distribution of inputs, taking account of budget and input supply constraints. Alternative targeting systems need to be appraised against these issues.

Correspondence:

ad55@soas.ac.uk, echirwa@yahoo.com.

This **Policy Brief** is based on Dorward, A. R. and Chirwa, E. W. (2012) *Targeting. Discussion Paper, Evaluation of the 2011/12 Farm Input Subsidy Programme, Malawi*. Paper prepared for the Malawi Government and Department for International Development (DFID), Malawi. The opinions in the paper are those of the authors and may not be attributed to the Malawi Government or DFID.