

## What is RHVP?

The Regional Hunger and Vulnerability Programme (RHVP) supports improvements in policy and programme approaches to hunger and vulnerability in southern Africa with particular emphasis on the role of social protection.

## The Frontiers of Social Protection studies

The Frontiers of Social Protection (FoSP) studies aim to ensure that the knowledge from policy analysis on hunger and vulnerability that RHVP provides to policymakers remains relevant and reflects advances on a number of key social protection frontiers. The studies build on the research activities of RHVP's first phase (2005-08), in particular the Regional Evidence Building Agenda (REBA), which involved 20 commissioned case studies of social protection programmes in southern Africa and a series of cross-cutting thematic analyses (these are available at [www.wahenga.net](http://www.wahenga.net)).

Like the REBA, the FoSP work is demand-led, focusing on a number of 'hot topics' prioritised by stakeholders across the region and incorporating new evidence that is continually emerging on the practicalities and impacts of delivering large scale social protection. The FoSP studies have been designed and implemented by a core team of international researchers including Frank Ellis (International Development UEA at the University of East Anglia), Stephen Devereux (IDS, University of Sussex) and Katharine Vincent (RHVP), under the overall coordination of Philip White (International Development UEA) and in collaboration with individual researchers and research institutions in Africa and elsewhere.

## The Frontiers of Social Protection briefs

This series of briefs has been prepared by Philip White, Frank Ellis, Stephen Devereux and Katharine Vincent. The briefs aim to summarise the main findings of the respective FoSP studies in a concise and accessible format that will be appreciated by policymakers and practitioners concerned with hunger, vulnerability and social protection in the Southern African Development Community (SADC) countries, and that will support RHVP's policy dialogue activities and other dissemination events.

## Fertiliser subsidies and social cash transfers

Complementary or competing instruments for reducing vulnerability to hunger?

## Summary and policy lessons

- (1) This briefing paper places emphasis on fertiliser subsidies and social cash transfers as alternative, but overlapping, policy instruments for protecting chronically vulnerable people from hunger.
- (2) Fertiliser subsidies are chiefly directed at growth in a productive sector, but they have limited impacts on truly vulnerable households since they mainly benefit non-poor farmers and their indirect beneficial impacts on vulnerability are somewhat uneven and unreliable in practice.
- (3) For a variety of political and economic reasons, fertiliser subsidies also tend to capture a rising share of government budgets, and become politically difficult to reduce or remove the more entrenched they become.
- (4) Rather than focusing on a single transfer instrument in the productive economy, a more robust policy approach is to adopt a portfolio of instruments, each representing different strengths for achieving both productive and protective roles.
- (5) In this light, there is still room for a fertiliser subsidy up to certain budgetary limits, but scope is left to provide social cash transfers in one form or another at national coverage.
- (6) In concrete terms, if a government considers that it can spend 10 per cent of its annual budget on transfers, then placing all this allocation into fertiliser subsidies both makes it a hostage to fortune (e.g. adverse climate events) and disables its capability to tackle chronic vulnerability to hunger directly.
- (7) Instead, fertiliser subsidies could, for example, be limited to five per cent of the budget, allowing the other five per cent to be spent on a variety of direct cash transfers to chronically vulnerable people.
- (8) In terms of political advantage, fertiliser subsidies are not the only instrument that can confer strong electoral support; in all countries that have instituted them, pensions have also proved to have similarly powerful electoral effects.

## Background

Fertiliser subsidies and social cash transfers represent distinct policy alternatives for reducing vulnerability to hunger in low income southern African countries. When undertaken as scaled-up programmes, each of these policies entails a regular annual budget commitment by government, but involves different mechanisms by which vulnerability reduction is tackled in the short and long run. To the extent that they address the different needs of different vulnerable groups, or different time horizons for their effectiveness, they can be seen as complementary policies. On the other hand, they both compete for scarce public resources, and each represents an 'opportunity cost' compared to the other with respect to their relative success at achieving vulnerability reduction outcomes.

The objective of this briefing paper is to examine in detail the comparisons, contrasts and trade-offs between these two policy instruments. This is an important task since it may indicate adjustments in the relative funding priority that is attached to each of them in order to enhance their complementarity in pursuit of the common goal that they both strive to achieve.

For the purposes of this paper, social cash transfers include any type of regular monthly public transfer to vulnerable beneficiaries, including, for example, social pensions and poverty-targeted transfers. The paper utilises Malawi as a case study to illustrate the key points, since Malawi now has four years experience at implementing a fertiliser subsidy and is also expanding its coverage of poverty-targeted cash transfers and has been looking at pensions as a social protection option. For comparative purposes, a brief synopsis is also provided of parallel policy trade-offs in Zambia.

## Conceptual comparisons between fertiliser subsidies and cash transfers

Table 1 makes a series of comparisons between fertiliser subsidies and cash transfers as different instruments for reducing vulnerability to hunger. The comparisons involve multiple attributes, and a glance through this table quickly reveals that fertiliser subsidies are, or could be, complementary to social cash transfers to a considerable degree.

They potentially address different vulnerabilities, experienced by different social groups, with different direct and indirect effects, and different politics and rights characteristics. For example, while fertiliser subsidies really only help active farmers with land and labour and are intended to contribute to growth as well as poverty reduction in the long term, social pensions provide for those no longer in the active labour force and they are not intended to contribute to growth as their primary goal, even though they may do so indirectly (via the economic stimulus created by expenditure of the pension).

Fertiliser subsidies are not a welfare transfer. In economic terms, they seek to overcome sub-optimal use of a key productive input caused by risk and market failure. Small farmers cannot afford the high outlay on full cost fertilisers because of the prevalence of climate shocks that lead to crop failure and ruin, and the absence of credit markets by which such an outlay can be financed. Fertiliser subsidies are supposed to accomplish a transitional, bridging, function. They stimulate fertiliser uptake resulting in higher yields, more marketed surplus, higher cash incomes, more money in circulation in rural areas, improving rural credit markets and so on. Once these outcomes have been achieved, the subsidies should be gradually phased out, for otherwise they represent a continued substantial drain on public finances, preventing support to other worthwhile social and economic goals from being undertaken. This is especially so if the subsidies are only introduced to compensate for a temporary price spike in the fertiliser market, such as the one that occurred in mid-2008; in this case, the subsidy should be removed once fertiliser prices have returned to more normal levels.

Fertiliser subsidies do not assist the poorest and most vulnerable rural households directly, although they can have beneficial indirect effects. In most contemporary instances of their application, subsidies apply to a limited quantity of fertiliser that is targeted to small farmers. However, land and labour are prerequisites for productive use of fertiliser, and the landless and those lacking active labour are therefore excluded. Moreover, because the overall quantity made available at the subsidised price is rationed, a parallel market arises that does the job of allocating the restricted quantity available at some price between the subsidised price and the full price. Studies of the distribution of subsidised fertilisers discover without exception that the majority of eventual beneficiaries are

**Table 1: Comparative attributes of fertiliser subsidies and social cash transfers**

Attributes	Fertiliser subsidies	Social cash transfers
<b>Mechanism for reducing vulnerability</b>	<i>Indirect:</i> <ul style="list-style-type: none"> <li>low price increases use</li> <li>increased use raises yields</li> <li>high yields raise food security</li> <li>increased market sales keep seasonal food prices down</li> </ul>	<i>Direct:</i> <ul style="list-style-type: none"> <li>transfer buys food</li> <li>food prices supported</li> <li>poverty gap reduced</li> </ul>
<b>Asset and resource requirements</b>	<i>Many:</i> <ul style="list-style-type: none"> <li>land to cultivate</li> <li>labour for cultivation</li> <li>fertiliser responsive varieties</li> <li>reliable moisture in growing season</li> </ul>	<i>Some:</i> <ul style="list-style-type: none"> <li>land and labour not required</li> <li>markets deliver food and basic needs at stable prices</li> </ul>
<b>Risk reduction effects</b>	<i>Farm livelihoods:</i> <ul style="list-style-type: none"> <li>does not remove climate risks</li> <li>personal hunger risks reduced</li> </ul>	<i>All livelihoods:</i> <ul style="list-style-type: none"> <li>personal hunger risks reduced</li> </ul>
<b>Time horizon dimensions</b>	<i>Cumulative effects (hoped for):</i> <ul style="list-style-type: none"> <li>uptake of fertiliser sustained</li> <li>complementary technical improvements (seeds, water)</li> <li>farm output growth secured</li> <li>later phase-out possible</li> </ul>	<i>Immediate and linkage effects:</i> <ul style="list-style-type: none"> <li>vulnerability instantly reduced</li> <li>cash boosts local economy</li> <li>some investment may occur</li> <li>protected or increased assets improves resilience to shocks</li> </ul>
<b>Coverage limitations</b>	<i>Sectoral limits:</i> <ul style="list-style-type: none"> <li>rural, not urban</li> <li>farmers, not non-farmers</li> <li>not landless rural dwellers</li> <li>other limits may be set by targeting criteria</li> </ul>	<i>More open:</i> <ul style="list-style-type: none"> <li>rural or urban equally</li> <li>farmer or non-farmer equally</li> <li>coverage determined by targeting criteria</li> </ul>
<b>Inclusion and exclusion</b>	<i>Targeting weak:</i> <ul style="list-style-type: none"> <li>includes well-off farmers</li> <li>excludes poorest farmers</li> </ul>	<i>Targeting accuracy varies:</i> <ul style="list-style-type: none"> <li>pensions typically accurate</li> <li>poverty transfers prone to inaccurate targeting</li> </ul>
<b>Unplanned effects</b>	<i>Unplanned market effects:</i> <ul style="list-style-type: none"> <li>displaces full price supplies</li> <li>secondary coupon market</li> <li>external leakages at borders</li> </ul>	<i>Unplanned household effects:</i> <ul style="list-style-type: none"> <li>demography changes to suit targeting criteria</li> </ul>
<b>Budget planning differences</b>	<i>Budgetary commitment:</i> <ul style="list-style-type: none"> <li>unstable due to varying world fertiliser prices</li> <li>rises due to rise in demand for low price fertiliser</li> </ul>	<i>Budgetary commitment:</i> <ul style="list-style-type: none"> <li>stable and predictable – pensions</li> <li>stable – poverty transfers if capped (e.g. 10% targeting)</li> <li>unstable with regular indexing to food prices</li> </ul>
<b>Political dimensions</b>	<i>Farm lobby:</i> <ul style="list-style-type: none"> <li>supported by rich as well as poor farmers</li> <li>reliable constituency in support</li> <li>strong political resistance to scaling down or removal</li> </ul>	<i>Diverse picture:</i> <ul style="list-style-type: none"> <li>pensioners can be strong electoral force</li> <li>the destitute are politically weak</li> <li>civil society lobbies in favour</li> </ul>
<b>Rights considerations</b>	<i>Economic instrument:</i> <ul style="list-style-type: none"> <li>no rights attached</li> <li>can be reduced or removed</li> <li>long-run goal to phase out</li> </ul>	<i>Social settlement:</i> <ul style="list-style-type: none"> <li>transfers derive from human rights (UN declarations etc.)</li> <li>legislated pension a right</li> <li>so far poverty transfers seldom a commitment or a right</li> </ul>

non-poor and better off rather than poor farmers. This is so even if some attempt is made to allocate coupons to poorer farmers, since the latter will, in most cases, sell their coupons because they are unable to afford even the subsidised price that the coupon represents.

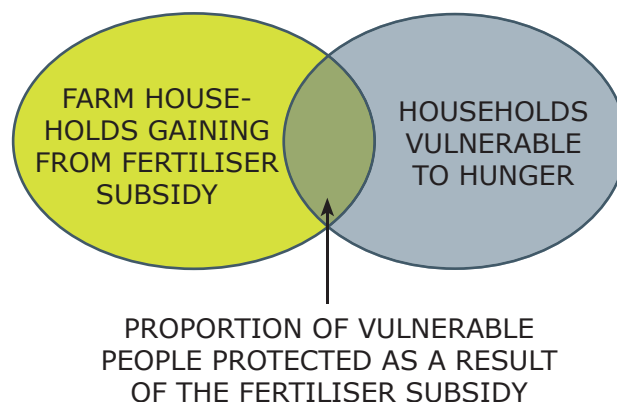
Nevertheless, poor and vulnerable people can gain from fertiliser subsidies indirectly in three recognised ways. Firstly, poor farmers who are allocated vouchers and then sell them in effect get a cash transfer (but this is a very expensive way of providing such a cash transfer); secondly, lower food prices as a result of higher supply improve the food security position of food deficit farmers and landless rural dwellers; and thirdly, a vibrant agriculture increases demand for rural labour, creating additional jobs and potentially resulting in higher rural wages. It is important to emphasise that these indirect effects are not the primary reasons for having a fertiliser subsidy, and they cannot be used as arguments for neglecting social transfers that are able to address a broad range of vulnerabilities to hunger (including in farming populations) more directly, more effectively, or substantially less expensively than fertiliser subsidies.

An inspection of Table 1 shows that social cash transfers possess some important strengths of their own for tackling chronic vulnerability to hunger that are quite distinct from the indirect impacts of a fertiliser subsidy. They reach those who are unable to generate a livelihood due to lack of land or labour; they do this directly through their purchasing power over food; they are equally effective in urban and rural areas; their delivery using electronic methods can be secure at low cost; and their budget cost for a given transfer to a defined set of beneficiaries is stable and predictable.<sup>1</sup>

The relationship of complementarity between fertiliser subsidies and social cash transfers can be depicted, as shown in Figure 1, by two intersecting spheres. The overlap shared by these spheres represents the degree to which the fertiliser subsidy can provide a reliable defence against hunger for the poorest members of the farming sector. Clearly, the larger the overlap, the more the fertiliser subsidy can be considered as providing a social protection function and, *vice versa*, the

smaller this overlap, the more social cash transfers are needed to protect vulnerable citizens from hunger.

**Figure 1: Intersection of receipt of fertiliser subsidies and vulnerability**



The discussion so far has mainly emphasised the scope for complementarity between fertiliser subsidies and social cash transfers in the task of protecting vulnerable citizens from avoidable hunger. However, these two alternative policies also compete with each other, most obviously in terms of claims over scarce budgetary resources. They also compete in the efficiency with which they provide a given level of protection from hunger; in other words, how much each costs to ensure that 100,000 at-risk families will securely meet their minimum food needs in the coming year. They may compete in effectiveness as well, that is, the reliability with which they ensure that such protection occurs.

It is in this dimension of competition that the true trade-offs between the two policies come out into the open. Fertiliser subsidies are notorious for the heavy demands they eventually make on budgetary sources, even if they start from a modest initial position (see the Malawi case study below). In terms of Figure 1, the more that fertiliser subsidies accrue to better-off farmers, and the less they provide direct or indirect support to vulnerable people, the higher the opportunity cost they represent for protecting vulnerable people from hunger. In addition, the gains from fertiliser subsidies can prove elusive in the long term; initial success aided by favourable climate conditions can turn to disappointment when an adverse shock

1 This assumes reasonably stable food prices and annual, rather than more frequent, adjustments in the level of the transfers.



results in crop failure despite the huge outlays that have been made. If the subsidies fail to moderate seasonal price instability, then they also fail to protect vulnerable rural populations from one of the greatest sources of their food insecurity. Finally, despite the widely accepted logic that subsidies should be phased out once their job of stimulating routine use of fertilisers is done, they are politically exceptionally difficult to reduce or remove and this difficulty intensifies the longer that the subsidies are in place.

The direction and balance that these complementarities, conflicts and trade-offs can take in practice are best illustrated by way of real country examples. In this briefing paper, Malawi is utilised as the main case study for the reason that the government of Malawi has implemented a fertiliser subsidy at scale since the 2005-06 crop season and has also experimented with pilot social cash transfers since 2006, now covering seven districts. In addition, some discussion occurred in government circles in Malawi in 2008 on the potential for instituting a social pension. Malawi is well-known for the very high incidence of chronic vulnerability in its rural population, necessitating frequent and often large-scale emergency humanitarian measures in the early to mid-2000s. The overall poverty rate in Malawi is 52 per cent (2004-05), with 22 per cent of the population classified as ultra-poor i.e. not being able to meet even minimum acceptable food requirements (Malawi, 2005). Many of these same factors, although with pertinent differences as well, are reproduced in Zambia and a brief summary of the Zambian case is also provided.

## The Malawi case study

### A. The fertiliser subsidy

For the past four years, Malawi has had a national fertiliser subsidy embedded within a broader programme of farmer support called the Agricultural Input Support Programme (AISP). Fertiliser represents by far the largest component of the AISP, and for purposes of discussion here the term 'fertiliser subsidy' can be taken to embrace the whole AISP. The AISP also provides subsidised seeds to farmers, not just for maize, and in 2008-09 it included pest protection chemicals for maize kept in store.

The basic data on the Malawi fertiliser subsidy is provided in Table 2. The concern here is not the mechanics of voucher allocation and fertiliser distribution, although these are important topics in themselves. For the past three years, the subsidy has had a target outreach of 1.7 million farm households. This represents about 70% of the estimated 2.5 million farm households in Malawi, and inevitably implies a degree of rationing i.e. not everyone is able to secure one or more coupons giving them access to the basic quantity of subsidised fertiliser. Rationing can notionally be overcome by accurate targeting of voucher allocation towards a sub-set of farm households that are the intended recipients. However, as discussed earlier, rationing in any market tends to cause a parallel market to arise to reflect the underlying excess demand for the commodity at the subsidised price. And so it is too with the Malawi fertiliser subsidy: most field studies of the subsidy reveal that a vibrant parallel market in coupons exists, and those poorer

**Table 2: Basic data on the Malawi fertiliser subsidy 2005-08**

Fiscal year	Households reached	Subsidised fertiliser sales	Coupon redemption price	Coupon market value	Approx. subsidy rate	Estimated budget cost <sup>b</sup>	Budget cost
	no.	tons	MK <sup>a</sup> /50kg	MK/50kg	%	MK million	US\$ million
2005-06	1,370,060	131,388	985 <sup>c</sup>	2735	64	6,937	58.6
2006-07	1,772,280	174,688	950	3430	72	9,067	64.8
2007-08	1,700,000 <sup>d</sup>	216,553	900	4199	79	15,018	107.3
2008-09	1,700,000 <sup>d</sup>	170,000 <sup>d</sup>	800	9800	92	29,411	210.1

**a** MK = Malawi kwacha. From 2006-07 an exchange rate of MK140 = US\$1 has been used

**b** Budget costs for the whole AISP; 2008-09 is an IMF estimate from January 2009

**c** In 2005-06, subsidised maize fertiliser was sold at MK950 and tobacco at MK1450 per 50kg bag, this figure represents a weighted average

**d** Planned figures for outreach

Sources: Dorward & Chirwa (2009); IMF (2008; 2009)

rural households fortunate enough to be allocated vouchers tend to sell them for cash (Kadzandira, 2007; Dorward & Chirwa, 2009).

The key additional point to note from Table 2 is that the coupon price of fertiliser has declined over the period of implementation (for maize from MK950 to MK800 per bag between 2006-07 and 2008-09). According to figures given in Dorward & Chirwa (2009), this has increased the subsidy rate on voucher sales from around 64 per cent to 92 per cent since the programme started; in other words, by 2008 recipients of vouchers were paying only eight per cent of the true market cost of fertiliser. One significant reason for this was that world fertiliser costs spiralled upwards in line with oil prices in 2008 just when the Malawi government was contracting supplies for the 2008-09 crop year, with the dramatic effect of more than quadrupling the budgetary cost of the subsidy in four years. This cost will, of course, fall back in the next fiscal year because world fertiliser prices have declined since late 2008; nevertheless, there can be no certainty that prices will remain stable at lower levels in the longer-term future and a resumption of global growth in 2010 or 2011 could once more send them on an upward trend.

Table 3 further explores the financial implications of the fertiliser subsidy set within the context of trends in government revenue and gross domestic product (GDP) over a five-year period. Financial figures are in nominal terms, since it is the shares that are of principle interest in this context. It can be noted that government revenue has been growing steadily as a share of GDP, from 27.2 per cent to 33.5 per cent. However, this reflects increasing reliance on donor funding, since external grants (mainly general budget support) have grown from 33 to 44 per cent of revenue in this period. The cost of the fertiliser subsidy has grown from 1.4 to

4.7 per cent of GDP and from 5.1 to 13.9 per cent of total government revenue.

There are many different ways that the success of a policy instrument like a fertiliser subsidy could be measured, bearing in mind that our interest here is in hunger and vulnerability aspects. In the maize market, production success at first seemed unequivocal with output rising from a five-year mean level of 1.55 million tons (2001-05), to 2.72 million tons in 2005-06 and 3.22 million tons in 2006-07; however, not all this increase was attributable to the subsidy as favourable rainfall also helped (Dorward *et al.*, 2007; Dorward & Chirwa, 2009). As expected, this rise in output had the beneficial effect of moderating seasonal maize price instability, helping to reduce vulnerability to seasonal food insecurity as a result (Figure 2). The national average retail price for maize, which had varied between MK20 and MK50 per kg in the hungry season of 2005/06, fell steeply after the successful 2006 harvest, then rose only moderately in the 2006/07 hungry season, before falling again in late 2006 and early 2007 as farmers and traders sold off stocks that they had been keeping from the 2005/06 harvest. This decline continued through the harvest period in 2007 to reach a low for recent history of MK14 per kg in May 2007.

For 2007-08, however, outcomes become considerably less straightforward to interpret. Prices once again started rising steeply in mid-2007, reaching a hungry season peak of MK44 in March 2008. This rise has been attributed to export sales of around 300,000 tons in mid-2007 but may also have reflected over-estimation of the 2006-07 harvest. Official data suggests that maize output in 2007-08 was similar at 2.78m tons to the level realised in 2005-06, a quantity considerably in excess of domestic consumption. Yet, most unusually, post-harvest prices only dropped for two

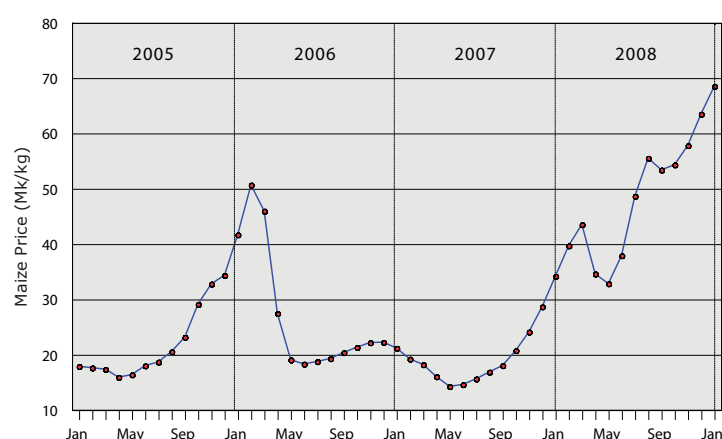
**Table 3: Fertiliser subsidy compared to GDP and government revenue 2004-08**

Fiscal year	Nominal GDP	Total revenue	Domestic revenue	External grants	Share of GDP	Fertiliser subsidy	Share of GDP	Share of revenue
	MK m	MK m	MK m	MK m	%	MK m	%	%
2004-05	311,954	84,925	56,809	28,117	27.2	4,328	1.4	5.1
2005-06	384,174	116,986	67,316	49,670	30.5	6,937	1.8	5.9
2006-07	464,464	147,632	84,295	63,337	31.8	9,067	2.0	6.1
2007-08	540,053	176,853	105,700	71,153	32.7	15,018	2.8	8.5
2008-09	631,120	211,425	118,167	93,258	33.5	29,411	4.7	13.9

Source: IMF (2008; 2009)

months to May 2008 before rising steeply to the end of the calendar year, reaching MK70 per kg in early 2009. A serious over-statement of the 2007-08 harvest seems to have occurred, substantiated to some degree by evidence of significant unofficial inflows of maize from neighbouring countries (Jayne *et al.*, 2008). Exceptional policy measures were taken: in mid-August 2008, the government banned exports and gave the parastatal ADMARC monopoly rights over maize purchases (at MK45 per kg) and sales (at MK52 per kg). However, ADMARC was unable to defend this ceiling price for maize due to insufficient purchases from farmers earlier in the season and inadequate stocks.

**Figure 2: Trend in nominal maize prices in Malawi 2005-08**



Source: Ministry of Agriculture and Food Security, Malawi

It is not the intention of this briefing paper to attempt a detailed examination of what may or may not have occurred in the Malawi maize market in 2006-2008. Nevertheless, some provisional conclusions regarding the relationship of a fertiliser subsidy to protection from hunger can be made. Firstly, for whatever reason, the protection provided by moderated price hikes in the lean season really only occurred over one season (2006-07), and this was probably because the preceding harvest (2005-06) represented a genuine leap forward in supply compared to previous years. Secondly, to the extent that the 2006-07 and 2007-08 harvests may have in reality been significantly lower than official estimates, so too would have been other indirect effects on vulnerability reduction identified earlier in this paper. Thirdly, the economic benefit-cost ratio of a fertiliser subsidy policy is acutely sensitive to the additional output genuinely attributable to the subsidy, and this ratio can swing

from strongly positive to equally strongly negative if output gains slide below a critical threshold that balances benefits and costs (Dorward & Chirwa, 2009).

## B. Comparative position of social cash transfer alternatives

From the viewpoint of protecting vulnerable people from hunger, the Malawi fertiliser subsidy can be seen from the preceding discussion to provide at best a partial policy response, and if intended output and income gains fail to be sustained, the overlap depicted in Figure 1 may be quite a small proportion of each of the populations represented. The fertiliser subsidy needs to be seen as one amongst a portfolio of policies that tackle vulnerability, allowing for debate to take place about the relative priority and budgetary allocation that should be accorded to each of them. The exercise conducted here tries to do this for two of the largest categories of potential cash transfer recipients; older people and the 10 per cent most vulnerable households. Malawi has already been experimenting with cash transfer delivery to the latter category, while the potential to institute a social pension has also received some attention in policy discussion in the country.

Table 4 provides some basic coverage, cost and budget share data for a number of different alternatives, including the fertiliser subsidy. This table requires a few notes of explanation, so that known facts are distinguished from plausible assumptions, and the basis of the figures provided can be transparently seen:

- the population figures underlying beneficiary data are the provisional 2008 census figures of 13,066,320 persons and 2,957,683 households;
- population share refers to individuals for the two pension columns, and to households or farmers for the other three columns; the same applies to beneficiary numbers;
- the shares of the population aged 60+ and 65+ are provisional pending the official publication of these details, but are based on past firm trends in these ratios in successive censuses;
- the combined 65+10% column is a rough approximation of the number of households that would receive a benefit if ultra-poor households not containing a pensioner were poverty-targeted under the 10% rule separately (assumes 50% of such households do not contain a pensioner);

**Table 4: Comparative attributes of social protection alternatives 2008-09**

Category	Units	Persons 60+	Persons 65+	Households 10%	Combined 65+10%	Fertiliser subsidy
Share of population	%	5.15	3.70	10.0	11.9	57.0
Beneficiaries	No.	672,915	483,454	295,768	631,338	1,700,000
Transfer/month	MK	1,500	1,500	1,500	1,500	n/a
Transfer/year	MK	18,900	18,900	18,900	18,900	11,764
Total cost	MK m	12,718	9,137	5,590	11,932	20,000
Share of GDP	%	2.0	1.4	0.9	1.9	3.2
Share of budget	%	6.0	4.3	2.6	5.6	9.5

Sources: Malawi (2008); other sources as for Tables 1 and 2; calculations as described in the text

- (e) the transfer per month is set at MK1,500 (just over US\$10), irrespective of whether this is to an individual (pensioner) or a poverty-targeted household;
- (f) the transfer per year is twelve times the transfer per month plus a 5% administration allowance;
- (g) total cost is transfer per year multiplied by the number of beneficiaries (individuals or households);
- (h) for the fertiliser subsidy, it is assumed that total cost will in the future fall back by one third from the 2008-09 level of around MK30 billion, so this is not entirely back to the level of 2007-08;
- (i) GDP and budget shares are calculated on the 2008-09 figures given in Table 2.

The table offers some interesting insights. The ten per cent poverty-targeted transfer, if implemented fully at the simplified benefit rate suggested, would cost only 2.6 per cent of the government budget and represent less than one per cent of GDP. A universal pension for 60+ year-olds would cost six per cent of the budget and two per cent of GDP, as would approximately some combination of a 65+ social pension and targeted transfer to chronically vulnerable households not containing pensioners. The budget amounts that government have been prepared to allocate to the fertiliser subsidy – up to nearly 15 per cent of the budget in 2008-09 – show that various combinations of these alternatives are certainly affordable, and the choices of emphasis between them are more to do with the political advantage each of them is thought to confer than with the costs relative to outcomes that each represents.

This exercise is admittedly a broad brushstroke; however, it serves the useful purpose of lifting the debate about alternative methods for achieving social protection in a country like Malawi above the 'affordability' blocking tactic ("we cannot possibly do that because it would cost too much") into the more productive realm of the appropriate balance between different instruments that can satisfy both productive and protective goals between them. In this realm, a good case can be made for scaling back the fertiliser subsidy to some degree, thus creating the fiscal space to permit at least one form of scaled-up social protection to be properly instituted with countrywide outreach. As discussed earlier, the fertiliser subsidy fundamentally favours non-poor farmers and only incidentally (and unreliably) benefits land- and labour-constrained poor rural households. Moreover, its entrenchment at rates of subsidy and coverage that stretch affordability to its limits is both economically and politically unwise; it becomes politically impossible to phase out and its costs leave no room to deal with unforeseen eventualities (such as, for example, the not unlikely occurrence of two successive years of poor rainfall). If the fertiliser subsidy were to cost 5 to 6 rather than 10 or 15 per cent of the budget, then social cash transfers could comfortably occupy 4 to 5 per cent, providing reliable protection against hunger for perhaps 15 per cent of the population at that level.<sup>2</sup>

2 If 500,000 individuals were covered and shared their benefit on average with four people, then this would protect 15 per cent of the population. Similar calculations can be made for a variety of different scenarios.



## The Zambia comparison

The position in Zambia parallels that in Malawi in some important respects. The poverty rate in Zambia is typically found to be above that in Malawi and, according to the 2005 Poverty and Vulnerability Assessment, poverty and ultra-poverty rates were 56 per cent and 36 per cent of the population respectively in 2002-03 (World Bank, 2005). Even though Zambia is considerably more urbanised than Malawi (36 per cent urban compared to 17 per cent), 72 per cent of the poor in Zambia are located in rural areas.

Zambia has two fertiliser subsidy programmes operating in parallel and implemented by different Ministries. One is the Fertiliser Support Programme (FSP) implemented by the Ministry of Agriculture and Cooperatives (MACO) since 2002-03, which provides fertiliser packs to up to 200,000 farmers at 40 per cent of the world price through private input suppliers and farmer cooperatives. The other is the Food Security Pack implemented by the Ministry of Community Development and Social Services (MCDSS) through a national NGO, the Programme Against Malnutrition (PAM). This began in 2001-02 providing 60,000 food insecure farm households with a free pack of diversified seeds and fertiliser. The PAM programme initially grew to reach 145,000 households in 2003-04, before then dwindling rapidly to less than 25,000 households in 2007-08 and 2008-09.

In principle the FSP and PAM schemes are complementary, the first covering small farmers cultivating 1-5 hectares (ha) and able to buy fertiliser at the subsidised price and the second addressing vulnerable farmers cultivating less than 1 ha and complying with a set of poverty-targeting criteria. However, in practice, the steep decline in PAM coverage, allied to findings that most FSP fertiliser ends up in the hands of better-off farmers (Chiwele, 2009), means that, overall, by 2009 food insecure small farmers were gaining little from fertiliser subsidies in Zambia.

As with the AISP in Malawi, the cost of the FSP rose steeply in Zambia between 2007 and 2008, from Zambian kwacha (ZK) 205 billion to 490 billion. This also raised the share of the FSP in total government revenue from 1.9 to 4.0 per cent. In Zambia, domestic tax revenue is stronger than

in Malawi and 'fiscal space', defined by deducting unavoidable expenditures (such as government payroll costs) from revenue, is greater (roughly 52 per cent of revenue in Zambia compared to 37 per cent in Malawi). In addition to fertiliser subsidies, and reflecting the political importance of the urban consumer constituency, Zambia has a subsidy on maize flour that takes the form of reducing the purchase cost of maize grain to commercial millers. This is budgeted by MACO and implemented through the Zambia Food Reserve Agency (FRA). The cost of this subsidy also jumped between 2007 and 2008, from ZK 205 billion to 340 billion. When taken together with FSP, and adding in the much smaller cost of PAM (ZK 10 billion), agricultural producer and consumer subsidies in total rose from ZK 425 billion to 840 billion, becoming about 7 per cent of total revenue in 2008<sup>3</sup>.

While proportional orders of magnitude are different, there is no doubt that Zambia represents the same trade-offs between different objectives and the means of achieving them as Malawi. The FSP is more explicitly considered a 'social transfer' in Zambia than in Malawi, yet even more than in Malawi it observably benefits better-off rather than poor or ultra-poor rural people. The FRA maize subsidy represents an untargeted transfer to maize consumers that in principle should be of greater benefit to those heavily reliant on maize in their total consumption than those less reliant. However, this is at the cost of providing a lot of well-off people with cheaper maize flour who could easily afford full price supplies. Both these subsidies 'squeeze out' the allocation of greater resources to transfers that can directly supplement the incomes of poor or ultra-poor people, such as poverty-targeted cash transfers or social pensions.

3 These data are compiled from a variety of sources, including tables supplied by the Food Security Research Project and IMF financial tables for Zambia. Financial estimates need to be treated cautiously; budgeted figures differ greatly from actuals and, because there is usually a substantial delay in reconciliations, many alternative figures can be found in different tables and reports for the same sub-categories of expenditure. Zambia's exchange rate against the dollar varied widely in the period 2006-09 (reflecting changes in the copper price). In 2008, it averaged ZK 3,740.

## References

Chiwele, D.K., 2009, *Impact Assessment of the Zambia Fertiliser Support Programme: Access of Smallholder Farmers to Timely, Effective and Adequate Supply of Agricultural Inputs*, Lusaka: RuralNet Associates, February, draft report

Dorward, A. and E. Chirwa, 2009, *The Agricultural Input Subsidy Programme 2005 to 2008: Achievements and Challenges*, January, unpublished document

Dorward, A., E. Chirwa, D. Boughton, V. Kelly, W. Masanjala and M. Tsoka, 2007, *Evaluation of the 2006/7 Agricultural Input Supply Programme, Malawi*, Report to the Ministry of Agriculture and Food Security, Lilongwe, March

Jayne, T.S., A. Chapoto, I. Mindle and C. Donovan, 2008, *The 2008/09 Food Price and Food Security Situation in Eastern and Southern Africa: Implications for Immediate and Longer Term Responses*, Michigan State University, International Development Working Paper, draft, November

Kadzandira, J.M., 2007, *REBA Case-Study on the Input Subsidy Program, Malawi*, Report prepared for the Regional Evidence Building Agenda (REBA) of the Regional Hunger and Vulnerability Programme (RHVP), June

Malawi, 2005, *Integrated Household Survey 2004-05, Volume 1: Household Socio-Economic Characteristics*, Zomba: National Statistics Office, October

Malawi, 2008, *Population and Housing Census: Preliminary Report*, Zomba: National Statistics Office, September

Malawi, various years, *Budget Statements made to the National Assembly*, Lilongwe

Miller, C., M. Tsoka and K. Reichert, 2008, *Impact Evaluation Report of the Mchinji Cash Transfer Pilot*, Center for International Health and Development, Boston and Centre for Social Research, Zomba, August

IMF, 2008, *Malawi: Sixth and Final Review Under the Three-Year Arrangement Under the Poverty Reduction and Growth Facility*, Country Report No. 08/265, July

IMF, 2009, *Malawi: Request for a One-Year Exogenous Shocks Facility Arrangement*, Country Report No. 09/16, January

World Bank, 2005, *Zambia Poverty and Vulnerability Assessment*, Washington DC: World Bank, June [document available at [www.sarpn.org.za/documents/d0001457/index.php](http://www.sarpn.org.za/documents/d0001457/index.php)]

## Research approach and acknowledgements

This paper was prepared by Frank Ellis, based on secondary sources as well as consultations with senior government officials and researchers in Malawi and Zambia conducted in April 2009. The secondary sources comprise evaluation reports of the Agricultural Input Subsidy Programme (AISP) in Malawi, as well as documents related to social cash transfers pilots in both Malawi ([www.socialcashtransfers-malawi.org](http://www.socialcashtransfers-malawi.org)) and Zambia ([www.socialcashtransfers-zambia.org](http://www.socialcashtransfers-zambia.org)). Use is also made of budget statements and tables, national data sources, and IMF financial data for both countries. Thanks are due in particular to Andrew Dorward and Ephraim Chirwa for sharing their in-depth knowledge accumulated over several years of studying the Malawi fertiliser subsidy, and to Anthony Chapoto for sharing time series budget and other data for Zambia. Comments on an earlier draft were provided, with thanks, by Nicholas Freeland, Harry Mwamlima, Bernd Schubert, Philip White and Alan Whitworth.



1st Floor, 22 Wellington Road, Parktown, 2193, Johannesburg, South Africa  
Postnet 307, Private Bag X30500 Houghton, Johannesburg, 2041, South Africa  
E-mail: rhvp@rhvp.org Tel: +27 11 642 5211 www.wahenga.net

Further information is available from [www.wahenga.net](http://www.wahenga.net) or by contacting [rhvp@rhvp.org](mailto:rhvp@rhvp.org).  
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