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REBA thematic brief

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The Cost-Effectiveness of Social Transfers

About REBA

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 Regional Evidence Building Agenda (REBA)
Evidence-building, together with capacity-building and policy change, is one of RHVP's three interlinked activities. The Regional Evidence Building Agenda (REBA) is a cohesive framework that has guided the Programme's cross-country evidence-related activities between April 2006 and September 2007. The REBA consists of individual case studies of 20 ongoing social transfer programmes together with thematic studies covering cross-cutting design and implementation issues. The studies were carried out by locally commissioned researchers, mostly working through national research and consultancy institutions, in the six southern African countries covered by RHVP (Lesotho, Malawi, Mozambique, Swaziland, Zambia and Zimbabwe). All the case studies involved close collaboration with the agencies – government departments and government-appointed bodies, local and international NGOs, UN agencies and communities – that were implementing the social protection schemes under review. The research was supported and guided by a core team of international mentors which included Stephen Devereux (IDS, Sussex), Frank Ellis (ODG, University of East Anglia) and Lionel Cliffe (University of Leeds) and was coordinated and managed by Philip White (ODG).

REBA Aims
The REBA aims to support RHVP's efforts to promote improved policy and programme approaches to social transfers as a means of addressing hunger and vulnerability. REBA findings are feeding into a range of policy, advocacy and research outputs and processes, including policy briefs, best practice guidelines, national and regional learning events for policymakers, practitioners and civil society, a film series and research publications. In addition, by working through a network of national consultants, the REBA aims to increase national capacity to carry out analytical research on hunger and vulnerability within the six countries.

REBA Thematic Briefs
This series of briefs was prepared by Stephen Devereux, Frank Ellis and Philip White, and provides a regional synthesis of findings of both the 12 thematic studies and the 20 individual case studies undertaken under the REBA. The themes explored in these briefs are those addressed in the respective REBA thematic studies, but include additional themes that have emerged during the implementation of the REBA work as being of particular interest and policy relevance.

Overview

'Cost-effectiveness' is about the relationship between costs and effects. It is a measure of how cheaply specified objectives can be reached, or how far they can be reached at given cost. In principle, it provides a criterion for judging and choosing between alternative means of producing the desired effects according to the value for money they offer.

The quest for cost-effectiveness has become something of a preoccupation amongst donors and governments funding social transfer programmes, and much of the rather polarised debate about the relative merits of different instruments, cash and food transfers especially, has been in cost-effectiveness terms. Choices about whether and how to target social transfers are judged on their relative cost-effectiveness, as are different methods of delivery.

Sponsors of social protection programmes, and the communities to whom they are accountable, have an obvious and legitimate interest in ensuring that desired programme effects justify money spent, and in whether these effects could be enhanced within budgetary constraints or achieved or more cheaply in other ways. However, straightforward as it may seem at first sight when applied to social transfers, cost-effectiveness is open to different conceptual and empirical interpretations, and results of cost-effectiveness calculations can therefore be manipulated to serve particular policy advocacy interests. Perhaps the most important recommendation of this brief is that before drawing any conclusions from findings about the cost-effectiveness of a social transfer scheme, it is necessary to scrutinise carefully what costs and effects are actually being referred to, whose findings these are, and how the data were collected and analysed. Unfortunately, for a number of reasons, reliable information on the cost-effectiveness of programmes is not nearly as widely collected, analysed or shared as it should be, so that in practice findings often remain inconclusive.

This brief examines some of the main issues that arise in judging the cost-effectiveness of social transfer programmes, with particular reference to case study schemes explored during RHVP's Regional Evidence-Building Agenda (REBA)[1], and identifies some policy lessons that emerge in this area.

1 Briefs on individual REBA case studies, numbered 1 to 20, are available at **http://www.wahenga.net/index.php/evidence/case_study_briefs/**

Analysing the cost-effectiveness of social transfers

Cost-effectiveness analysis (CEA) differs from cost-benefit analysis (CBA) in that whereas CBA attempts to assess financial or economic returns to an investment by attaching monetary values to all associated costs and benefits and comparing the two, CEA more straightforwardly specifies a project objective, then analyses the cost of achieving it. CEA is appropriate where effects cannot easily be reduced to monetary terms, even if they can be quantified. It is well suited to social transfer schemes, where the focus is most often on assessing value for money in attaining transfer objectives rather than on quantifying overall economic or financial returns to investment. Like CBA, CEA can be used to compare alternative interventions with different costs and different effects, provided the effects can be expressed in the same units. However, unlike CBA, CEA findings are specific to the particular 'effects' selected for the analysis, and are likely to differ between direct outputs of schemes (e.g. amount of cash or farm inputs transferred) and indirect effects (e.g. increased access to food or increased agricultural production).

Most analyses of cost-effectiveness for social transfers, where they are conducted at all, confine themselves to direct outputs, measuring what might better be termed 'cost-efficiency' of transfer delivery, for example how much it costs to transfer a unit of cash or a bag of maize. This in principle allows cost-efficiency to be compared between programmes which involve identical forms of transfer (cash, maize-meal, beans, fertiliser etc.). It is a rather limited concept of cost-effectiveness which has very little to say about effects of a programme other than the transfer itself, and does not allow comparisons between schemes with different forms of transfer.

Sometimes cost-efficiency is expressed as a ratio: either the proportion of total scheme budget represented by transfers that beneficiaries actually receive ('*alpha ratio*'), or its reciprocal, the total cost per unit value of transfer received by beneficiaries. In the case of cash transfers this is fairly straightforward, since both scheme budget and amount transferred are in cash form. For commodity transfers, however, calculating this ratio requires transfers to be valued in cash terms, raising the issue how this is best achieved. Often, in-country commodity procurement costs are used, so that the alpha ratio is simply a ratio of procurement cost to all other costs. This conveys an idea of logistical and management 'overheads', but is rather arbitrary and can be misleading. For example, if all other costs were the same, a food transfer programme which uses high-cost imported food commodities would appear more cost-efficient than one which uses commodities procured locally at lower cost. Clearly a better method, more closely reflecting the actual value of transfers to recipients, is to use an estimate of local market prices at the point of transfer, adjusted for recipients' transaction costs where appropriate.

If commodity transfers are valued in this way, cost-efficiency comparisons can be made between programmes with different forms of transfer. For example, alpha ratios can be calculated for food transfers with different baskets of commodities, and these can be compared with each other and with the alpha ratio for a cash transfer. Furthermore, it also becomes possible to value a cash transfer in, say, food terms using average current prices of food staples in local markets. This permits a broader and more useful assessment of *cost-effectiveness* than mere cost-efficiency in delivery, because it takes into account the way in which conditions in local markets can determine how far transfers meet specific objectives. Thus with respect to protecting beneficiaries' food entitlements, for example, the analysis will show that a cash transfer programme becomes relatively less cost-effective in these terms when food prices are rising in a food-deficit market, whereas a food transfer programme would become more so, and *vice versa*. This form of analysis can inform decisions about whether cash or food is most appropriate transfer, especially when combined with complementary analysis of the simultaneous effects *of* food or cash transfers *on* local food markets, whereby in relatively poorly integrated markets transfers could add impetus to these price movements and so intensify the cost-effectiveness differences between cash and food[2].

Cost-effectiveness analysis can be further extended in the direction of broader social transfer impacts. For example a main objective of farm input transfers is to enable poorer farming households who would not otherwise be able to afford purchased inputs the means to increase their production of food and/or cash crops. The above method of valuing transfers at local market prices would enable a cost-effectiveness comparison of an input transfer with a cash transfer which recipients use to purchase inputs on local markets. However it would also be possible to assess cost-effectiveness in terms of the quantity or value of incremental production which is expected to result or which actually resulted from the input transfer, and compare this with alternative options for boosting their farm output, or alternative

2 For further detail see REBA Thematic Brief No. 6: *Social transfers and markets*
http://www.wahenga.net/uploads/documents/reba_studies/REBA_Thematic_Brief_6_Apr2008.pdf

social transfer options altogether. As this example suggests, the more cost-effectiveness analysis focuses on broader impacts and the more it values effects in monetary terms, the closer it becomes to a standard cost-benefit analysis.

Cost-efficient delivery of transfers is normally necessary, but rarely sufficient, for a social transfer programme to be cost-effective in terms of impacts. This depends on how direct is the link between the transfer and the intended impacts, and on other factors affecting impacts. For unconditional cash transfer programmes, the link is relatively direct: efficient delivery of cash might be assumed to lead automatically to cost-effective impacts, for example in terms of relief of extreme poverty, access to essential commodities (especially food), or avoidance of distress sales of assets. Yet even in this case, as we have seen, cost-effectiveness of impacts depends on broader considerations such as price levels for those commodities in local markets and how well those markets are linked with wider ones. For other programmes aimed at longer-term or less direct impacts, such as improved uptake of health or education services, improved nutritional status, increased agricultural output or creation of community assets, cost-efficient transfers are even less a guarantee of cost-effective impacts. Furthermore, the link between the two is mediated by accuracy of targeting: transfers may be efficiently delivered to registered beneficiaries, but if there are large inclusion and/or exclusion errors in targeting processes then impacts on intended target groups will be correspondingly reduced. Table 1 suggests factors that typically determine cost-efficiency of transfer delivery and cost-effectiveness of transfer impacts for different programme types.

The costs side of the cost-effectiveness comparison is also open to a range of interpretations which can cause confusion. In principle all costs attributable to provision of the transfer should be accounted for, including scheme establishment and management, technical cooperation and training, targeting and registration of beneficiaries, procurement and secure delivery of transfers and monitoring and evaluation. If there are significant start-up costs which bring benefits over a number of years, there is a case for undertaking a discounted flow analysis, calculating the present value of costs over the assumed lifetime of the project and comparing it with the present (discounted) value of transfers over the same period. This should also apply in the case of (normally externally funded) pilot projects which are envisaged to be progressively scaled up, and which involve intensive technical assistance provided by staff of an NGO or international agency at the pilot stage. Likewise, additional costs of management and administration by government staff which are attributable to the scheme should be factored in. One of the problems with pilot programmes is that the true costs of 'going to scale' are not known and are not easily arrived at through simple extrapolation from an analysis of costs at the pilot stage. Addressing constraints to scaling up, in particular those associated with implementation capacities of civil service institutions such as ministries of social welfare, may require considerable investment in training, creation of additional posts, office space, transport etc., all of which need to be incorporated into the cost analysis.

Information constraints in analysing cost-effectiveness

For cost-effectiveness analysis to be useful, information on both sides of the cost-effects comparison must be reasonably complete and reliable. For many social transfer schemes, there are severe information constraints on both counts.

On the effects side, the valuation of transfers at local market prices requires price monitoring data for main commodities being transferred or expected to be purchased using cash transfers, covering main markets in scheme areas and preferably on a monthly basis. In some countries such data are routinely collected for the purpose of vulnerability assessments, though not always at the level of disaggregation that one might wish for.

Ex-ante assessments are of course hampered by lack of prior knowledge about market price movements, and so must rely on the construction of scenarios based on average seasonal price movements, modified in the light of information from crop forecasts and other sources as it becomes available. Such information is essential for the planning, design and management of social transfer programmes that are effective as well as cost-effective, but is rarely systematically collected and applied for this purpose. Going some way in this direction, the Malawi Vulnerability Assessment Committee (MVAC) annual assessments are exceptional in establishing two alternative food price scenarios for the calculation of 'missing food entitlements' as a basis for the planning of short-term transfer programmes, though this is only weakly followed up by use of actual price information for *ex-post* assessment of cost-effectiveness once programmes have been completed. Panel surveys of beneficiary households which would provide data to assess effects of transfers over the medium term are rarely undertaken – certainly not in any of our case-study schemes in southern Africa. Information on costs is also typically partial and/or lacking in transparency, particularly in the case of food transfers. Sometimes cost information is available for overall country programmes but not individual transfer projects, or for planned but not actual expenditure, or for multi-component projects but not isolated for their

Table 1: Typical determinants of cost-efficiency and cost-effectiveness of some common social transfer instruments

Transfer type	Cost-efficiency of transfer delivery	Cost-effectiveness of transfer impacts
Unconditional cash transfers	• Overall cost of cash delivery per unit of cash transferred, including scheme management, targeting, registration, secure delivery, M&E etc • Exchange rates for externally funded schemes	• Targeting effectiveness • Price levels of essential goods and services in local markets, especially food • Integrity of local markets
Conditional cash transfers	• As above, plus cost of conditional element (e.g. additional health or education service provision)	• As above, plus service provision and impacts associated with conditional element (e.g. improved health or educational achievement)
Food aid	• Overall cost of food delivery per $1.00-worth of food delivered, valued at point of delivery • Market prices for food at point of delivery	• Targeting effectiveness • Market conditions affecting sale or consumption of food • Health service provision and health hazards affecting nutritional uptake • Quality and uptake of education provision (school feeding)
Input subsidies	• Cost of input delivery per $1.00-worth of inputs delivered, valued at point of delivery • Market prices of inputs at point of delivery	• Targeting effectiveness • Market conditions affecting sale or farm use of inputs • Growing conditions (weather, pests etc) • Crop husbandry and storage • Market conditions for output
Public works	• Cost of cash or in-kind payment per $1.00-worth of payment delivered, valued at point of delivery • Market prices for in-kind commodities at point of delivery • Cost of establishing and managing works projects	• Targeting effectiveness • Achievement of impacts of payment in cash or kind • Value to local communities and maintenance of assets created

transfer component. A DFID exercise in devising a practical method for comparing the cost-efficiency of different transfer schemes in Malawi and Zambia in 2004 (White & McCord, 2006) found that in several cases the exercise was seen by implementing agencies as being very sensitive, and on more than one occasion information was actually withheld for fear that it would be used "out of context". Similar obstacles were encountered by researchers carrying out some of the case studies on which this series of thematic briefs is based. To some extent such fears are understandable, precisely because programmes have objectives that go beyond direct transfers and cost-efficiency is only part of the cost-effectiveness picture. Yet the widespread lack of transparency on costs of social transfer schemes has major accountability implications, and renders evidence-based policy making and identification of effective intervention options problematic.

Cost-effectiveness issues arising from case studies

Annex Table 1 summarises cost-effectiveness findings for our 20 case studies. These raise a number of issues which can be grouped according to type of transfer as follows.

Cash transfers

Cash transfers might be expected to be more uniformly cost-effective than transfers in kind, at least in direct effects. However, cost-efficiency data available for our cash transfer case studies varied considerably. The two pension programmes appear on the face of it to be the most cost-efficient. In Lesotho, the Ministry of Finance builds only about US$0.5m for administration costs into an annual Old Age Pension budget of US$21m in 2005/06, suggesting only US$1.02 total cost per US$1 received by beneficiaries. Whether or not this accurately reflects all costs associated with the scheme, costs are undoubtedly minimised by the extensive use made of existing public infrastructure and personnel, in particular that of the postal service which undertakes distribution of the pension. A similar calculation for the Swaziland Old Age Grant suggests a US$1.11 total cost per US$1 transferred, which again appears very cost-efficient.

However, this is based on proportionate allocation of general Department of Social Welfare (DSW) operating costs which are not distinguished for individual programmes, and appears to exclude what could be significant DSW establishment costs attributable to the programme, so the possibility that costs are understated cannot be discounted.

The other scaled up, government-run cash transfer is the Mozambique Food Subsidy Programme. This has developed an elaborate administrative system for reaching its 100,000 beneficiary households across the country, involving large numbers of central and local level supervisory staff and police security cover. However the amount of the transfer has fallen from an originally-planned one-third of the minimum monthly wage to between 4 and 6 per cent of that wage. Such a thinly spread transfer has inevitably impaired cost-efficiency. Although official guidelines state that operational costs should comprise 15% of total costs, in practice they appear to be much higher. Attribution of costs to the scheme are not completely clear, but budget figures and beneficiary numbers suggest that costs to deliver US$1 may have been as high as US$1.47 in 2006 and US$1.55 in 2007.

As far as the pilot-scale NGO-implemented cash transfer case study programmes are concerned, the CARE-managed Kazungula and Chipata programmes in Zambia were at too early a stage for any *ex-post* assessment of cost-effectiveness. Nevertheless budget and average transfer figures imply an envisaged US$1.30 and US$1.11 per US$1 transferred respectively, the higher cost for the Kazungula scheme reflecting its remote rural setting, whereas Chipata is an urban scheme. By comparison, data for the longer-established GTZ-managed pilot in less remote rural areas of Kalomo District suggest a cost of US$1.18-1.20 per US$1 transferred. In the Dowa Emergency Cash Transfer (DECT) programme in Malawi, the innovation of varying the size of the cash transfer to reflect current maize prices while other costs remained constant meant that cost-efficiency varied correspondingly. As maize price halved during implementation the total cost per US$1.00 transfer increased from US$1.32 to US$1.52. No government share of implementation costs is included in these cases, and there are uncertainties about attribution of technical assistance and training costs.

Broader measures of cost-effectiveness are lacking for most of these schemes. The Lesotho pension appears to score highly as a cost-effective means of reducing vulnerability among the over-70s and their extended families which cover around a quarter of the country's population. As a means of reaching the most vulnerable people generally, the scheme on its own would inevitably be much less cost-effective as significant groups of the vulnerable are excluded. In terms of protecting food entitlements for target households, the cost-effectiveness of all of these schemes except DECT will have been impaired by the general upward trend in retail food prices, only partly compensated for by adjustments in transfer amounts. Within its very limited geographical area, DECT was shown to be cost-effective in reaching its hunger and social objectives and testing design and delivery innovations, and in its impact on the local economy which was assessed with an impressive multiplier effect of 2.1 (i.e. each US$1 transferred added around US$2 to the local economy).

Food transfers

Food transfers are sometimes characterised as being inherently less cost-effective than cash transfers because of the additional logistical costs associated with internal transport, storage and handling (ITSH) of food which significantly outweigh any additional cost of special security arrangements that have to be made for distributing cash. However, if the food is valued only at procurement cost and there are significant ITSH costs involved in distribution to beneficiaries, then its value to recipients (and thus the cost-effectiveness of the transfer) may be misleadingly understated. This applies especially where relatively isolated local food markets are in deficit and prices are high compared with those prevailing at the point of procurement – precisely the conditions under which not only can food transfers provide recipients' with access to food more efficiently than cash, but they can also help to limit local food price rises to the benefit of all net purchasers locally whereas cash could drive prices up further. Conversely, food transfers are likely to be less cost-effective than cash in non-deficit food markets, when their local market value is likely to fall below costs of procurement and ITSH, especially when procurement is from outside the region and landed costs are relatively high. If significant quantities are involved and markets are not well integrated, this is also when they can be expected to depress local market prices to the disadvantage of local producers. To compare the cost-effectiveness of food transfers with a cash alternative, it is therefore important that the food is valued at local market prices when and where it is distributed. Unfortunately this analysis is rarely carried out in practice, either *ex ante* or *ex post*, and was not apparently applied in any of our food transfer case studies.

For two of the three case study programmes involving WFP-implemented food transfers – the Food Assistance Program (FAP) in Mozambique and Neighbourhood Care Points (NCPs) in Swaziland – very little information is available that would enable a cost-effectiveness assessment of the transfer. The FAP must be judged in terms of its cost-effectiveness in tackling nutritional constraints to the efficacy of ARV treatment amongst

AIDS patients, rather than protecting household food entitlements *per se*. There seems to be little doubt that the programme has been effective in this regard, especially for children, but the case study was unable to draw conclusions as to whether the same success could be achieved more efficiently through other means, e.g. the use of alternative instruments such as cash or vouchers, or different procurement and delivery methods. The NCPs appear to be relatively cost-effective as a means of channelling support to orphans and vulnerable children, largely because once established they are operated by local volunteers. NCP activity tends to revolve around WFP food deliveries, which implies that the food transfer is more cost-effective within NCPs than it would be on its own because of this leveraging effect. Again, whether the same effect could be achieve more efficiently through other means is not discernable from available information, and there must be some concern about how far NCPs can improve their overall cost-effectiveness in the longer term through building up genuine community involvement and reducing their dependence on WFP food aid.

For the remaining WFP-linked case study, the School Feeding Programme in Lesotho, available estimates of costs are those that appear for the WFP component in successive project documents for 2004-2007 and 2008-2010, based on *ex-ante* assumptions about procurement sources and market conditions for the programme. Based solely on comparison of expected procurement plus delivery costs with total WFP costs including management support, the programme appears cost-efficient at US$1.18 per US$1 of food transferred in 2004-2007, though this is not a very useful statistic in itself for reasons given above. Reflecting a broader WFP move towards localising procurement where market conditions allow, this programme has moved from transoceanic to regional to in-country food procurement – a move that would be expected to have improved the overall cost-effectiveness of the food transfer over time. In terms of the programme objectives of improving primary school enrolment, retention, attendance and achievement rates, the commissioning of local caterers to provide food for future school-feeding operations could well prove cost-effective provided food quality and quantity can be adequately monitored and maintained.

ActionAid's Urban Food Programme in Zimbabwe appears to have significantly improved cost-effectiveness through the use of food vouchers to replace direct food distribution under moderate macroeconomic conditions that prevailed up to mid-2006. Subsequently, hyperinflation and problems with negotiation of conversion rates for external currency to fund the programme reversed these gains and forced a substantial reduction in beneficiary numbers. If participating retailers were able to maintain supplies, a voucher programme of this kind could well be the most cost-effective option for achieving food transfers for vulnerable urban populations while hyperinflation persists. Cost reporting for individual instruments within the PRP has been generally lacking, but during 2004-2006 ActionAid's programmes on aggregate cost US$1.44 per US$1.00 of direct benefits delivered, valued at cost, or US$1.30 per US$1 of total benefits. This compared favourably with most other PRP sub-programmes which overall showed a cost of around US$3 per US$1 of direct benefits and US$2 per US$1 of total benefits. (Samson & MacQuene, 2006)

Farm input transfers

As with food transfers, an initial cost-effectiveness judgement to be made for input transfers is at the level of cost-efficiency, analysing the overall structure of all procurement and delivery costs per unit of each type of input delivered, and then proceeding to a comparison of costs with the value of the transfers at the point of delivery using equivalent local market prices. As the bulk of expenditure on input transfers tends to be for mineral fertilisers, cost-efficiency assessment amounts to a comparison of scheme and non-scheme distribution chains involving large-scale domestic manufacturers or importers. Impact-oriented cost-effectiveness judgements can then be made in terms of broader objectives, such as those related to incremental production and effects on input, labour and output markets and on rural livelihoods.

For most of our input transfer cases, information constraints preclude an adequate cost-effectiveness assessment. Swaziland's Chiefs' Fields and Child-Headed Households programmes, in which government provides seeds and fertilisers to OVC for use on land allocated by local chiefs, have both suffered from late inputs delivery, lack of community support and poor crop yields, and are unlikely to prove cost-effective in terms of their objectives of ensuring the long-term food security of orphans and vulnerable children. White & McCord's (2006) analysis of Zambia's Food Security Packs (FSP) programme for 2003/04 put the cost to deliver US$1-worth of inputs at current market prices at a fairly high US$1.67. Information on broader FSP impacts is lacking, but with severe funding constraints and delays in delivery, cost-efficiency and broader cost-effectiveness have doubtless declined further subsequently. FAO support to Input Trade Fairs in Mozambique costs US$1.25-1.29 for each US$1-worth of input vouchers delivered, but this excludes unknown but apparently significant Ministry of Agriculture logistical support costs, and there is negligible monitoring of outcomes of these one-off events and no evidence of lasting impacts on beneficiary access to inputs.

Amongst our input transfer case studies, by far the largest and most extensively evaluated was the Input Subsidy Programme (ISP) operated by the Government

of Malawi in 2005/06 and 2006/07. At US$91m including a 25% cost overrun and a donor contribution of just 10%, the 2006/07 programme accounted for around half of the entire Ministry of Agriculture budget, and so its cost-effectiveness is of no small interest. In this year coupons were distributed for 175,000 tons of subsidised fertiliser and 4,500 tons of maize seed. Programme cost per ton of fertiliser distributed by parastatals (ADMARC and SFFRFM) and participating private traders amounted to US$490 (US$1.11 for each US$1 spent on procurement), of which 72% (US$355) represented the government subsidy. An indication of the fertiliser value in local markets is given by equivalent private retail costs, which were also about US$490 per ton sold (Dorward *et al.*, 2008:27). Although the parastatals' costs were probably understated for various reasons including their greater outreach into remoter parts of the country, and despite significant shortcomings in coupon distribution, this suggests that the transfer was implemented reasonably cost-efficiently.

Against broader ISP objectives of improving smallholder productivity in food and cash crops, reducing food insecurity and hunger, promoting food self-sufficiency, developing private sector input markets and promoting wider growth and development, conclusions concerning cost-effectiveness are mixed but broadly positive. Cost-effectiveness was undermined by displacement of private full-price fertiliser sales, so that 30-40% of the fertiliser subsidised did not add to overall use while private sector input markets were disrupted. Poor targeting and late delivery reduced the ISP's beneficial effects on food security. Information gaps hampered proper planning, and complementarity with broader social protection and agricultural policies needs strengthening. Nevertheless, between 500,000 and 900,000 tons of additional maize production is attributed to the 2006/07 ISP, and the programme yielded significant household food security dividends through raising wage rates and lowering food prices. Benefit-cost ratio is put in the range 0.76 to 1.36 that year, and 0.65 to 1.59 over the next five years, depending on assumptions about market displacement and yield response. (Dorward *et al.*, 2008)

Malawi has come full circle from an era of input subsidies and price controls during the late 1970s and '80s to World Bank/IMP-imposed liberalisation and removal of the fertiliser subsidy during 1987-95, to donor-funded free inputs for smallholders (Starter Packs and Targeted Inputs) from 1998 to 2004 in response to successive food crises when the private sector failed to fill the gap left by liberalisation, and back to government-led input subsidies from 2005/6 when donors pulled out of funding free inputs (Devereux & White, 2007). The ISP has split donor opinion between those who view it as a wasteful, politically-motivated and fiscally unsustainable 'distortion' of free markets, and those who see its potential in tackling hunger and as a possible ladder out of the rural poverty trap, with some donors appearing to move from a position of scepticism to one of tentative support (Chinsinga, 2007). While decisions on its continuation will remain highly politicised, its future cost-effectiveness will depend critically on uncontrollable factors such as international food and fertiliser prices, growing conditions and domestic maize prices, as well as on improved management standards. As with other input supply programmes, cost-effectiveness is limited by exposure to intra- and inter-seasonal cycles, maximising incremental output at times of minimum prices and (more seriously) *vice versa*.

Public works

In terms of transfer cost-efficiency public works programmes (PWPs) do not score highly, as the cost of organising 'works' projects has to be added to that of delivering wages in cash or commodity form. Thus the norm for Malawi Social Action Fund (MASAF) projects under Phases I and II was to spend around US$2.50 for each US$1 of transfers. Again, cost-efficiency calculations for most Malawian PWPs considered in our case study were hampered by lack of scheme-level data on actual transfer and overheads costs. For example, more recent evaluations imply that US$1 of transfer cost US$1.41 on the 2005 MASAF III PWP-CCT scheme and US$1.75 on the 2005/06 government/EU SPRINT scheme, but this apparent difference in cost-efficiency appears to stem from different approaches to attributing overhead costs. Although in principle, unlike input transfers, PWPs provide a 'countercyclical' safety net by offering employment opportunities at times of stress when food prices are high, are 'self-targeting' and create useful community assets at the same time, they have consistently failed to demonstrate broader cost-effectiveness in these terms.

Other programmes

Among our remaining case studies, two are worth highlighting as positive examples of cost-effective social protection interventions. In Mozambique's Education Materials Fairs, Save The Children (UK) has conducted follow-up work to demonstrate, albeit on a small pilot scale, that with careful execution not only can educational materials be cost-efficiently transferred through a voucher system that provides recipients with choice over purchases and stimulates local trade, but that an intervention of this kind can be cost-effective in its broader aim of encouraging sustained increases in school enrolment and attendance amongst particularly vulnerable children. And in Zimbabwe, under near-impossible macroeconomic circumstances, the CRS-implemented Small Livestock Transfers scheme has shown that asset transfers in the form of small stock such as chickens, rabbits and goats can bring cost-

effective, inflation-proof and sustainable benefits to poor households in the form of milk, egg and meat production and herd/flock reproduction, provided that disease outbreaks among stock can be controlled. A recent cost-benefit study (Woolcock & Mutiro, 2007) of the Protracted Relief Programme (PRP) of which this latter scheme is part found this and similar small livestock schemes to have an impressive benefit-cost ratio of 8.4, one of the most cost-effective PRP activities.

Cost-effectiveness and targeting

A final issue that has arisen in many of these case studies is the link between cost-effectiveness and targeting. Targeting is about maximising cost-effectiveness of social transfers by concentrating limited resources on the most needy, and choosing the most cost-effective method of doing so. The Malawi DECT programme found that even with 70% of households in the project area falling into the target group, the 'savings' from targeting rather than covering all households outweighed targeting costs by more than three times. Nevertheless this case, and still more others where a much smaller proportion of households are targeted, highlights the problem of 'leapfrogging': in a context of near-uniform and entrenched poverty, targeting even a modest transfer to the poorest is likely to raise their income above that of non-beneficiaries in a way which is ethically questionable and can lead to social divisions (Ellis, 2008).

More broadly, as Mkandawire (2005:10) points out, targeting has not been shown to be cost-effective in reducing poverty or vulnerability, and "policies that have the greatest impact on poverty are not necessarily the most narrowly pro-poor, targeted ones". Aside from its potential to disempower, stigmatise and breed bureaucratic abuse of power, in a context in which social policy has been relegated to a palliative role of correcting some negative outcomes of macroeconomic policy rather than forming part of a broad agenda of economic development and social transformation, targeting can amount to little more than cost-cutting dressed up as cost-effectiveness. This is a further illustration of the need to examine cost-effectiveness at the broader level of impacts. Ultimately, social transfers may prove more cost-effective in reducing poverty and vulnerability with lighter rather than heavier targeting, set within a more universalist social policy framework.

Policy lessons

A number of policy lessons emerge from the experience of our case studies:

- Cost-effectiveness analysis, both *ex ante* and *ex post*, is an essential element of social transfer programming, monitoring and evaluation, because it addresses key questions of best use of resources in pursuing objectives and can inform programme design.
- However, it requires much more systematic gathering and analysis of information before, during and after implementation than is presently achieved, both for costs and effects. Lack of basic scheme information makes cost-effectiveness findings inconclusive for most of our case studies.
- It is suggested that national social protection policies should contain explicit recommendations and guidelines on the collection and full disclosure of consistent and comparable data that can be used in the analysis of the cost-effectiveness of different social transfer interventions.
- Cost-effectiveness analysis should be conducted for different levels of programme objectives, from a 'cost-efficiency' assessment at the output level to show how efficiently transfers are delivered, to a broader analysis of whether effects and impacts justify costs. This disaggregation of findings can make it more illuminating than cost-benefit analysis, and less dependent on assumptions.
- On the costs side, more care is needed in attributing all relevant costs, and more transparency in documenting these and making information publicly available.
- On the effects side, valuing commodity transfers at local market prices at the point of delivery (rather than at procurement cost) allows valid cost-efficiency comparisons between different transfer instruments under changing market conditions. This can, for example, show when food transfers are more cost-effective than cash despite higher delivery costs, but requires market monitoring data.
- Broadening the analysis to the level of impacts allows comparisons to be made between different social transfer approaches, and between social transfers and other policy options, which share common objectives. It is important to think beyond narrow technical parameters of transfer schemes to include broader social, economic and political considerations.

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Annex: Cost-effectiveness highlights in case study schemes

No.* & Country	Scheme	Cost effectiveness highlights
1 Malawi	Dowa Emergency Cash Transfer	Transfer linked to household size and maize price. As maize price fell, transfers reduced relative to other costs and cost-efficiency declined. With maize prices of MK40, 30 and 20 per kg, costs to transfer US$1 put at US$1.32, 1.43 and 1.52 respectively. Hunger impacts achieved; social impacts positive; innovative delivery mechanisms tested. Local multiplier effect assessed at 2.1.
2 Zambia	Social Cash Transfers: Kazungula & Chipata	Transfers average around US$105 per beneficiary per year, varying with school enrolment in Chipata. Planned CARE overheads just 10% of total costs in Chipata (an urban area), 20% in remote rural Kazungula, excluding unknown Govt. admin overheads. Kalomo actual overheads 15-17%. Issue of incentives for MCDSS staff & CWAC members, with questions over cost-effectiveness of targeting.
3 Lesotho	Old Age Pension	Budget allocation for administration minimal, suggesting only US$1.02 cost to transfer US$1. Factoring in Post Office and other existing infrastructure costs, scheme still likely to be very cost-efficient, and cost-effective in reducing vulnerability in households with over-70s. Impacts across extended families expected to reach a quarter of total population.
4 Mozambique	Input Trade Fairs	FAO data suggest US$1.25 - 1.29 to deliver US$1.00 of transfer, but this excludes MINAG logistical costs. Cost-efficiency probably acceptable, but little monitoring of outcomes in short to medium term and impacts appear largely confined to locations and times of fairs.
5 Malawi	Input Subsidy Programme	Incremental maize production attributed to 2006/07 subsidy 500-900,000 tons. Benefit-cost ratio estimated in range 0.76 to 1.36 for 2006/07, and 0.65 to 1.59 for next 5 years. Cost-effectiveness will depend on international fertilizer prices, domestic maize price movements, management and growing conditions.
6 Swaziland	Old Age Grant	MoF data for 2005/06 indicate cost of US$1.11 per US$1 transfer, suggesting cost-efficiency – but unclear whether this includes all Dept. of Social Welfare administrative overheads. Broader cost-effectiveness subject to guaranteed funding and improved delivery systems.
7 Mozambique	Food Subsidies Programme	Operational and administrative costs officially put at 15% of total programme budget, but appear much higher as transfer amount has declined relative to elaborate management structure. Budget figures suggest total costs to deliver each US$1 transfer were US$1.47 in 2006 and US$1.55 in 2007. Impacts limited as transfer very thinly spread.
8 Zimbabwe	Urban Food Programme	Data for 2004-2006 suggest total costs of US$1.44 to deliver US$1 worth of food vouchers. Cost-effectiveness curtailed by difficult macroeconomic context, especially hyperinflation, and likely to have declined during 2007.
9 Mozambique	Food Assistance Programme	Data for cost-efficiency estimation not made available. No post-transfer follow-up of beneficiaries to shed light on broader cost-effectiveness.
10 Zambia	Food Security Pack	The most recent data available (2003/04) suggest a cost of US$1.67 to deliver US$1-worth of inputs at market value. Cost-efficiency affected by funding constraints and delivery delays, with reduced beneficiary numbers spread across country. Little evidence available on impacts on yields and farm incomes in short or medium term.
11 Malawi	Public Works Programmes	Lack of scheme-level data on transfer and overhead costs and other scheme parameters prevents accurate cost-efficiency calculations for most schemes. Including cost of 'works', MASAF I & II transfers expected to represent just 40% of total budgets (i.e. US$2.50 cost per US$1 transfer). Recent evaluations suggest cost per US$1 transfer of US$1.41 on PWP-CCT and US$1.75 on SPRINT schemes, but unclear what overhead costs included. Cost-effectiveness not assessed at impact level, but subject to payment delays and poor asset maintenance.

* Case study number (see footnote 1)

No.* & Country	Scheme	Cost effectiveness highlights
12 Mozambique	Education Material Fairs	A relatively cost-efficient transfer, with US$1.20 total costs per US$1 worth of vouchers transferred. Follow-up impact monitoring provides evidence of cost-effectiveness in increasing school enrolment and attendance among OVC.
13 Lesotho	Burial Societies	Increased popularity and diversity of burial societies suggest they operate competitively and are proving cost-effective for subscribers in providing protection against impacts of funeral-related cash demands.
14 Swaziland	Neighbourhood Care Points for OVC	Establishment costs of US$114 per OVC on UNICEF-supported NCPs, with UNICEF administration costs of 7% and volunteer operation thereafter, suggests relative cost-efficiency in NCP set-up and operation. Longer term cost-effectiveness depends on genuine community involvement and reduced dependence on WFP food aid.
15 Swaziland	School Bursaries for OVC	Scheme costs not disaggregated from other Ministry of Education costs. Cost-efficiency benefits from Ministry and school-level structures already in place, but may suffer from reported funds leakages. Cost-effectiveness subject to apparent mis-targeting and rationing of bursaries to OVC, plus exclusion of poorest OVC unable to fill gap between bursaries and full costs of school attendance.
16 Swaziland	Chiefs' Fields for OVC	Little quantitative evidence available, but with low crop yields, late and inadequate input delivery and limited community participation, Chiefs' Fields appear unlikely to be cost-effective in meeting OVC needs.
17 Swaziland	Farm Inputs for Child-Headed HH	At over US$400 per household to provide inputs for 0.5 ha, scheme unlikely be cost-efficient. Impacts on production unknown, but cost-effectiveness would be marginal even if crop yields were above average, an unlikely occurrence. Restitution of orphans' hereditary land rights could be an important spin-off.
18 Zimbabwe	Small Livestock Transfers	Inflation-proof asset transfer providing benefits of milk, egg and meat output and herd/flock reproduction at minimal project and household cost. This and similar livestock schemes under Protracted Relief Programme judged highly cost-effective in 2007 PRP cost-benefit study (benefit-cost ratio 8.4).
19 Lesotho	School Feeding	Actual costs unknown though budget for 2004-07 WFP component expected a cost-efficient US$1.18 to deliver US$1-worth of food at procurement price. WFP school feeding appears cost-effective in raising school attendance and off-setting opportunity costs of schooling. Switch to government contracting of local caterers for 2008-2010 can extend cost-effective provision if food quality/quantity maintained as prices rise.
20 Zimbabwe	Rural Micro Finance	2003-05 data indicate cost of US$33 per graduated participant, or US$0.75 in seed money per US$1 loans achieved. In normal macroeconomic context cost-efficiency would rise as savings and loans rotate based on initial start-up costs. Growth in membership suggests potential – as yet unrealised – for broader cost-effectiveness in protecting livelihoods and stimulating local trade.

* Case study number (see footnote 1)

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