

Zambia

Using Social Safety Nets to Accelerate Poverty Reduction and Share Prosperity

Cornelia Tesliuc, W. James Smith and
Musonda Rosemary Sunkutu

Africa Social Safety Net and Social Protection Assessment Series



March 2013



THE WORLD BANK

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Until recently, most countries in Africa implemented safety nets and social protection programs only on an ad hoc basis. In the wake of the global economic, food and fuel price crises starting in 2008, however, policymakers in Africa began to increasingly view safety nets as core instruments for reducing poverty, addressing inequality, and helping poor and vulnerable households to manage risk more effectively. During FY2009-2013, to support governments in their quest to understand better how to improve the efficiency and effectiveness of safety nets in their countries, the World Bank's Africa Region undertook social safety net or social protection assessments in a number of countries in Sub-Saharan Africa. By 2014 assessments have been completed or are under preparation for over 25 countries in sub-Saharan Africa. These assessments analyze the status of social protection programs and safety nets, their strengths and weaknesses and identify areas for improvement, all with the aim of helping governments and donors to strengthen African safety net systems and social protection programs to protect and promote poor and vulnerable people. They were all carried-out with the explicit aim of informing governments' social protection policies and programs. With the results of analytical work like these assessments and other types of support, safety nets and social protection programs are rapidly changing across Africa. For a cross-country regional review, please see "[Reducing Poverty and Investing in People: The New Role of Safety Nets in Africa,](#)" which pulls together the findings and lessons learned from these assessments and other recent studies of safety net programs in Africa.

Abstract

Despite robust annual growth of 5.7 percent in the recent past, poverty in Zambia remains stubbornly high. The poverty headcount rate is 60 percent (as of 2010), and 39 percent of the population live in extreme poverty, with insufficient consumption to meet their daily minimum food requirements. Chronic malnutrition remains very high, with 47 percent of children under the age of 5 being stunted in 2010, close to the high levels of the early 1990s. The report recommends a unified National Safety Net Program comprising cash transfers and public works to reach the poorest 20% of the population. The estimated cost is about US\$100 million per year. This is less than 2% of public spending and around 15% of the current subsidies programs benefiting the non-poor.

JEL Classification: I32, I38, J32, H53

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Currency Equivalents

Currency Unit = Kwacha

(Exchange Rate as of November 1, 2012)

K.5,090 = US\$1.00

(On January 1, 2013 currency rebasing was introduced at a rate of 1,000 old kwacha =1 new kwacha)

ABBREVIATIONS AND ACRONYMS

CBO	Community-based Organization
CCTs	Conditional Cash Transfers
CGP	Child Grant Program
CSO	Central Statistical Office
CWAC	Community Welfare Assistance Committee
DHS	Demographic and Health Survey
DfID	UK Department for International Development
FBO	Faith-based Organization
FISP	Farmers' Input Support Program
FRA	Food Reserve Agency
FSP	Food Security Pack
FSRP	Food Security Research Project
GDP	Gross Domestic Product
GIZ	German International Development Agency
HGSFP	Home Grown School Feeding Program
HHs	Households
IFPRI	International Food Policy Research Institute
ILO	International Labour Organization
LCMS	Living Conditions Measurement Survey
LFS	Labor Force Survey
MCA	Millennium Challenge Account

MCDMCH	Ministry of Community Development, Mother and Child Health
MCDSS	Ministry of Community Development and Social Services
MCT	Ministry of Communications and Transport
MDGs	Millennium Development Goals
MIS	Management Information System
MLSS	Ministry of Labor and Social Security
NFNSP	National Food and Nutrition Strategic Plan
NGO	Non-governmental Organization
OVC	Orphans and Vulnerable Children
PHS	Post-Harvest Surveys
PLWH	People Living With HIV
PUSH	Peri-Urban Community Self-Help
PWAS	Public Welfare Assistance Scheme
SCTS	Social Cash Transfer Scheme
STEPS-OVC	Sustainability though Economic Strengthening, Prevention, and Support for Orphans and Vulnerable Children
SP-SAG	Social Protection Sector Advisory Group
SPLASH	Sustainable Program for Livelihoods and Solutions for Hunger
VAM	Vulnerability Assessment Mapping

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Executive Summary

Main Messages

- The persistent failure of growth to benefit the poor suggests that the time is right to try new approaches – including greater use of productive safety nets.
- The main drivers of poverty reduction must continue to be pro-poor growth, education, agricultural productivity, and employment creation, but experience worldwide has shown that productive safety nets can accelerate the reduction of extreme poverty in parallel with these factors.
- Such programs will not only immediately put money in the pockets of the poor but will also increase their longer-term productivity and human capital.
- Zambia is already spending a lot of money on a variety of transfer and subsidy programs, but most of it goes to the better-off. Almost none of the very poor in Zambia are currently benefitting from public transfer programs.
- There is a good base in several of the existing safety net programs, but their coverage is minuscule, with most covering no more than 1 or 2 percent of the extreme poor. Zambia can afford to cover more people with its safety net – for example, reaching the poorest 15 to 20 percent of Zambians might cost about K.366 billion (US\$73 million) annually.
- In macro terms, this is not a huge amount. It represents only about 2 percent of total public expenditure, and it may well be a better use of money than many of the government's current priorities and will have a more rapid impact.
- The extent to which Zambia uses safety net spending to reduce poverty is a political and social choice. The formulation of the national Social Protection Policy in the coming year is a unique opportunity to hold a debate at the political level and evaluate the choices. This report provides the background information needed for such a debate.

1. Zambia has experienced a strong economic recovery and robust growth in the past 10 years, but this has had little impact on the country's high rates of poverty. There is extreme inequality – both between urban and rural areas and between the living standards of the small emerging middle class and those of the rest of the population.
2. Because the economic path that has been pursued so far has not worked for many Zambians, the time is right to ask whether alternative approaches should be tried, including the increased use of productive transfer programs, to accelerate the pace of poverty reduction. Experience worldwide in the past 20 years has shown that such programs not only increase the immediate consumption of the poorest but also reduce their poverty permanently by raising their productivity and enabling them to invest in human capital and to escape from the intergenerational poverty trap. From the point of view of the government, safety nets can be an effective way to target support to particularly poor groups and areas as well as a transitional way to support the extreme poor while other longer-term interventions take effect.
3. The new Government of Zambia is keen to re-examine the country's strategy for helping the poorest and is currently considering how best to do this. This report examines the choices available to the government and lays out the costs, benefits, and likely poverty impact of each of the options. The primary objective is to inform the debate within Zambia and to help policymakers and planners to reach well-informed decisions about the most effective way forward.

Growth, Poverty, and the Role of Safety Nets

4. Despite robust annual growth of 5.7 percent in the recent past, poverty in Zambia remains stubbornly high. The poverty headcount rate is 60 percent (as of 2010), and 39 percent of the population live in extreme poverty, with insufficient consumption to meet their daily minimum food requirements. Chronic malnutrition remains very high, with 47

percent of children under the age of 5 being stunted in 2010, close to the high levels of the early 1990s. Although the poverty rate has declined marginally over time, the absolute number of poor has increased (from about 6 million in 1991 to 7.9 million in 2010) due to population growth.

5. Zambia has a highly unequal distribution of income (with a Gini coefficient of about 0.52, compared with a level of 0.38 in fairly equal societies such as Vietnam and Tanzania). This high and persistent inequality is a compelling conceptual rationale for greater use of safety nets – first, purely arithmetically, because taking a fairly small amount from the top end of the economy can make a very large proportional difference in the consumption of the poorest, and second, because the persistence of such high inequality is the clearest possible evidence that the approaches tried to date have not worked.

6. So why hasn't the recent strong economic growth in Zambia reduced poverty? In sectoral terms, growth has historically been concentrated in the modern sector and in capital-intensive industries such as construction, mining, and transport. However, the vast majority of the very poor derive their livelihoods from subsistence smallholder agriculture, a sector in which until recently growth rates have been dismal. In geographical terms, growth has taken place in urban areas, whereas the poorest tend to live in remote rural areas that are barely connected to markets and the cash economy. Finally, the extreme poor lack the skills and assets to participate in the growth process.

7. However, there is a glimmer of a hope. It is possible that agricultural transformation, market integration, higher education levels, and the spread of the recent robust growth throughout the economy will eventually lead to a decline in extreme poverty, but this will take time. In the meantime, judicious use of safety nets can jump start the process by enabling the poorest to participate more in the growth process, while providing them with essential consumption support.

8. Choosing the right safety net interventions depends on the nature of poverty being addressed. In Zambia:

- There is a distinct group of ultra-poor whose consumption is far below the food poverty line – constituting about 20 to 30 percent of the population – but it is difficult to distinguish this group from the general mass of rural poor.
- There is little variation in proxy indicators of poverty such as ownership of assets at the village level and little correlation between household demographic composition and poverty rates, which makes it difficult to use these indicators to target programs.
- Orphans, the elderly, and people living with HIV/AIDS are spread across all income groups so targeting transfers to these groups does not necessarily reach the poorest.
- Deep poverty is overwhelmingly rural (89 percent of the extreme poor live in rural areas), but beyond that the geographic distribution of poverty seems to be mixed; while there are some pockets of deep poverty, the extreme poor are found in all districts.
- Under-nutrition levels are extremely high relative to the level of national income; the problem not only relates to food consumption levels but also to behavior and knowledge, hence the need to target pregnant women with ante-natal care services and training in good feeding practices, diet, and hygiene.
- Many subsistence households run out of food for four to six months during the lean season each year, introducing a seasonal element to extreme poverty for much of the population.

- There is not much movement in and out of poverty from year to year – most of the extreme poor are stuck well below the poverty line on a continuous basis.
- The essential problem is very low returns to the labor of the poor – both on and off farms, coupled with significant under-use of labor in many rural areas.

9. The broad implications are that there is a distinct group of ultra-poor that it makes sense to target with transfers but that the response requires a nuanced mix of approaches. Any safety net program has to be designed primarily to address long-term chronic poverty rather than to catch households that fall into short-term poverty, and it must address both chronic malnutrition and the seasonality of poverty. There is also the potential to leverage safety net interventions by using them to modify household's behaviors and increase returns to the labor of the able-bodied poor (either by directly employing them or by providing complementary inputs).

Current Transfer and Safety Net Programs

10. The study examined *all* programs that directly transfer either in-kind resources or cash to households in Zambia, and assessed their impact on extreme poverty.¹ The main programs are:

- *Food Security Pack (Coverage: 14,400 households (HHs); Annual Cost:² K.15 billion; US\$3 million)* provides small packages of seed and fertilizer to poor, food-insecure agricultural households. A potentially productive transfer for the poorest, but its impact has not been rigorously evaluated, and its coverage is extremely limited due to budget constraints.

¹ The report did not examine community development, women's empowerment, or income-generating programs.

² Annual coverage and costs are from 2011 in most cases; in cases where there is a lot of variation from year to year, the average of the two most recent years has been used (see Chapter 3 for details).

- *Farmer's Input Support Program (FISP); Coverage: 800,000 HHs; K.650 billion; US\$130 million*) provides subsidized fertilizer and seeds to farmers. This is the largest single transfer program in terms of coverage, and benefits go almost entirely to the non-poorest (only 12 percent of the subsidized fertilizer is received by households with less than 1 hectare). The incremental maize production is only worth slightly more than the cost of delivering the inputs.
- *Home Grown School Feeding Program (850,000 individuals; K.80 billion; US\$16 million)* provides school meals to 22 percent of students in selected areas with high poverty rates and low educational indicators. This appears to be a relatively cost-effective transfer, but the costs of a new expanded version are not yet known with certainty. There is only limited evidence of any positive impact on educational outcomes, but this has not yet been rigorously assessed.
- *SPLASH (Sustainable Program for Livelihoods and Solutions for Hunger; 35,000 HHs; K.23 billion; US\$4.6 million)* was an innovative voucher scheme that operated between 2009 and 2011. Vouchers to purchase a food ration were provided monthly to vulnerable families with a malnourished child or a member receiving ART or TB treatment. The program had several innovative features (use of e-vouchers, successful link with nutrition education, and relatively good targeting) but suffered from being entirely donor dependent and was therefore not sustainable.
- *Social Cash Transfer Scheme (SCTS); (50,000 HHs; K.44 billion; US\$8.9 million)* provides monthly cash transfers to poor households in selected districts using a mix of categorical and community-targeting methods. It has built a successful implementation structure, and early evaluations suggest that its targeting has been effective and that it has had a positive impact. It is in the process of being expanded, but its coverage still equivalent to only 3 percent of the extreme poor even if perfectly targeted and its financing is largely donor-dependent.

- *Public Welfare Assistance Scheme (PWAS) (59,000 individuals; K.8 billion; US\$1.6 million)* provides *ad hoc* support (such as clothes, maize meal, the payment of school fees, or help with medical costs) to a small percentage of the most destitute as identified by Community Welfare Assessment Committees. Its coverage is limited and the transfers are provided only at irregular intervals.
- *STEPS/OVC (200,000 individuals; K.32 billion; US\$6.7 million)* supports orphans and vulnerable children and people living with HIV, providing health care, education, shelter, and economic strengthening through savings groups and income-generating activities. This is not a pure transfer scheme, although it caters for an important target group.
- *OVC Bursary Scheme (20,000 individuals; K.6 billion; US\$1.3 million)* provides secondary school bursaries fees to orphans and vulnerable children (OVCs). This is a productive transfer that gives recipients an incentive for human capital accumulation. Its targeting accuracy is not known in terms of the poverty status of the beneficiaries.
- *PUSH (Peri-Urban Self-Help; 17,500 HHs; K.7 billion; US\$1.2 million)* employs the poor on public works in poor urban and rural areas. This is a promising model to build on, though its coverage is currently limited, and there is no rigorous evidence on the poverty status of the beneficiaries.
- *Tertiary Bursary Scheme (est. 50,000 individuals; K.289 billion; US\$53 million)* covers the fees and living costs of tertiary education students with the aim of increasing human capital. Estimates show that only 1 percent of the benefits go to the extreme poor.

- *Food Reserve Agency (FRA; est. 390,000 HHs; K.1.5 trillion gross; US\$360 million)* encourages the supply of maize (the staple food crop in Zambia) by buying it from farmers at above market prices. This has no direct benefit for the poorest, with an estimated 71 percent of the purchases being from large farmers.

11. Clearly some of these programs are not intended to be poverty-focused (for example, the FRA operations are designed to boost maize production and the Tertiary Bursary Scheme aims to encourage investment in higher education). Nevertheless, it is important to note that they are transferring a very large amount of money to Zambian households, almost all of it going to the better-off.

12. As of 2010, total spending on transfers of all kinds in Zambia amounted to about US\$540 million (K2.5 trillion), but the vast majority of this is accounted for by the larger programs that do not target the poor (including the agricultural input subsidies and tertiary education bursaries). The amount spent on programs that explicitly provide transfers to the poor is only about US\$50 million (K 0.2 trillion), and much of that is accounted for by donor spending on discrete programs. Spending on genuine safety nets for the poor represents only about 0.2 percent of GDP, which is even lower than in other low-income countries (which range from about 0.5 to 3.5 percent).

13. A number of observations can be made on the current package of programs:

- There is little co-ordination between programs, resulting in overlap and duplication of effort, and there is no harmonized mechanism to identify the poor using common criteria or to exploit any synergies between interventions.
- The major transfer programs are operated by different ministries, with no effective central direction of expenditure programming or strategy.

- Programs that explicitly cover the poor are very small-scale (such as the PWAS, the SCTS, the FSP, and PUSH), with total coverage amounting to less than a few percent of the poor.
- Programs suffer from stop-and-start disruptions because of the unpredictability of funding (two good examples are SPLASH and the FSP) or because their areas of operation shift. When transfers are not provided continuously and predictably to the same households, they can have little impact on the poverty status of the recipients.
- With the exception of the SCTS, none of the programs has made an attempt to rigorously analyze who they are benefitting, and this is a major knowledge gap.
- There is also almost no rigorous evidence on what impact existing programs are having on the consumption and poverty status of those they are intended to benefit, with the exception of the SCTS, making it difficult for policymakers to determine which of them are cost-effective enough to be scaled up.
- There is no coordination of geographic or beneficiary coverage so some areas or households may receive benefits from multiple programs while others that are equally poor or poorer may receive none.
- The current programs do not respond to the seasonality of poverty.
- Since the end of SPLASH, there has been no program explicitly designed to address malnutrition. This is a major gap in a country where under-nutrition is such a significant problem.

- Only the agricultural input programs (the FISP and the FSP) attempt to include the *promotive* aspects of safety nets to support the longer-term income growth of beneficiaries.
- There is a lack of programs explicitly targeted at the urban poor. Although urban poverty is less pronounced than poverty in rural areas, tailored interventions are still needed for the urban poor.
- In most cases, transfers are provided sporadically and households receive benefits for too short a period of time to have a long-term impact on their poverty status.

14. There is substantial scope for redirecting expenditure, rationalizing programs, and moving towards a more unified national system that might include of one or two large-scale programs consistently implemented over time.

Looking to the Future

15. The report lays out some options for a broad national safety net strategy for the coming decade as well as some steps that can be taken in the short to medium term to move towards a more unified system and make existing programs more effective.

16. *What role can safety net transfers play in Zambia's development strategy?* Clearly increasing agricultural productivity and employment creation have to remain at the center of Zambia's poverty reduction strategy. What this report proposes is not to supplant these but rather to complement them with more active use of productive transfer programs to accelerate reduction of extreme poverty in the coming decade and directly address high inequality. The overarching objective would be to bring most Zambians up to a minimum acceptable level of food consumption.

17. The approach can be seen as having two parts. The first part consists of the establishment of a permanent safety net system to support the most destitute because Zambia is now at the point where it can afford such a system. The second part consists of the widespread use of productive transfers as a transitional strategy to equip those who are potentially productive but have been left behind by the growth process to benefit from it in the long run while immediately increasing their consumption because other pro-poor growth measures cannot have an impact fast enough.

18. *Who should benefit from transfers?* Potential beneficiaries tend to fall into one of three categories: (i) the intrinsically destitute (such as the persons with severe disabilities, the abandoned elderly, and orphan-headed households) who will need support no matter what; (ii) households in inherently low-consumption situations such as those stuck in very-low productivity areas of the country or with very small landholding or asset bases, and (iii) the seasonally poor whose consumption from subsistence agriculture may be sufficient during much of the year but who fall into poverty annually during the pre-harvest lean season. These first two groups constitute a large part of the extreme poor and probably account for anything between 10 and 20 percent of the population. Given fiscal constraints, these are the people whom it might make sense to target first in a national safety net system. It is a potentially manageable level of coverage and constitutes the group who are so far below the food poverty line that their consumption is inadequate without some form of supplementary support. The third group (those who are short of food during the lean season) can be supported using a more focused transfer of cash or food for just four months of the year.

19. An argument could be made for extending the targeting of the system to cover the middle-extreme poor as well. Many of these are households who are just below the food poverty line now but who can expect their standards of living to rise within the next decade as a result of economic growth, structural change, and better education. This would cost more in safety net spending in the medium term. However, not only would it be possible to

scale this expenditure down over time, but it would also result in lifting a substantial proportion of the population out of poverty. Furthermore, at the end of this transition, Zambia would probably be in a stronger fiscal position and might be able to afford more permanent universal programs – such as a universal old age pension or universal school feeding – which do not appear to be cost-effective ways of addressing extreme poverty at the moment.

20. Based on the analysis of the existing programs in Zambia, it would make sense to move towards an integrated social safety net system instead of the current mix of independent and uncoordinated programs. This system could have three parts:

- (i) Expanding the provision of cash transfers to the most vulnerable.
- (ii) Employing the able-bodied poor on a large scale on routine maintenance and environmental public works.
- (iii) Increasing the promotive impact of safety net transfers with the aim of creating permanent income gains.

21. *Cash Transfers.* Zambia already has a solid base in the existing Social Cash Transfer Scheme. It can be expanded at a faster rate and on a larger scale to reach a large proportion of the most extreme poor. There is no other way to easily and directly support the destitute.

22. *Public Works Programs (PWPs).* Employment-based transfers are a promising method for increasing transfers to the able-bodied poor that is not being fully exploited in Zambia. PWPs have several advantages: they can be scaled up and down in response to need; they are potentially self-targeted (because only those in need will show up to work if the wage rate is kept low enough); and they can create productive assets. Also, in rural areas, such activities as reforestation, tree-planting, and improved maintenance of roads can increase rural livelihoods in the long term. Over time, a PWP can be expanded to

provide significant numbers of the poor with periodic transfers (employing 500,000 people annually is not unrealistic over the medium term).

23. *Promotive Transfers.* All transfers are productive (see Box 1), but judicious design can increase their developmental impact. Examples include: (i) requiring beneficiaries to take actions that will build the human capital of their families such as regular health visits for pregnant women and children, HIV prevention education, ensuring that children are vaccinated and have their growth monitored, or keeping children in school; (ii) linking beneficiaries with interventions aimed at increasing agricultural productivity; or (iii) using public employment schemes to increase the agro-economic potential of areas where the poor live. Beyond increasing the impact of programs, part of the rationale is to prevent transfers as being seen as handouts to prevent beneficiaries from being stigmatized and to make them co-responsible for their own welfare and to increase social and political support for programs.

Box 1: All Transfers Are Productive

The Ministry of Finance is understandably concerned with the sustainability of transfers, and Zambians in general are concerned with the dependency they might breed. However, it is important to realize that safety net transfers are not just consumption expenditures and that well-designed programs can have a lasting impact on the incomes of the poorest in terms of reducing their dependency in the long term.

Making transfers to the poorest immediately reduces poverty rates, but well-designed programs can have far more wider-reaching effects:

- Even unconditional cash transfers are used by families to send children to school or attend clinics. Kenya's Cash Transfer for Orphans and Vulnerable Children (CT-OVC) caused a significant 7.8 percentage points increase in secondary school enrollments.
- Experience in Latin America and Africa has shown that conditional cash transfers (CCTs) can greatly increase household investments in human capital by requiring beneficiaries to attend school, get skills training, become vaccinated, or use maternal and child health services. In Mexico, Nicaragua, Honduras, Colombia, and Jamaica, CCTs have significantly increased school enrollment and the use of preventive health services.
- Linking transfers and nutrition programs can dramatically reduce stunting, resulting in much increased lifetime productivity. In Colombia, the *Family in Action* CCT reduced stunting among children younger than 2 years of age by 6.9 percentage points.
- Even small regular transfers allow the poor to accumulate assets (such as livestock) and working capital to engage in small trading and off-farm activities. In Mexico, households invest about every 25 cents out of every peso transferred by the *Oportunidades* CCT in productive assets. In Malawi, the Social Cash Transfer Program increased ownership of agricultural tools and livestock.
- Predictable social cash transfers allow families to escape the inter-generational poverty trap. For example, orphans in grandparent- and child-headed households are able to stay in school and the children of destitute families avoid any long-term impairment from early childhood malnutrition.
- Transfers linked to agricultural activities (for example, free or subsidized inputs, access to revolving credit, or tailored extension support for beneficiaries) can yield benefits many times the costs of the transfer provided and have a lasting income effect.
- Experience in India and Ethiopia has shown that public works transfer programs can have a transformational impact on productivity of the poor by increasing the agro-economic potential of the areas in which they live (through irrigation, soil management, or reforestation or by establishing or maintaining road access).
- Finally safety net payments represent an injection of funds directly into the lowest level of the economy, where they have an immediate multiplier effect in generating demand and opportunities.

24. These components – cash transfers and public works with other promotive elements – could be combined to form the core of a unified national safety net system with whatever scale of coverage and program mix that the government feels is appropriate. This report proposes a hierarchy of possible approaches (Table 1), ranging from a minimal approach that would just provide a true safety net to the most destitute (Model A), to the relatively aggressive use of productive transfers to significantly decrease extreme poverty in the coming decade (Model C).

25. All involve building on the existing blend of cash transfer programs targeted to the poorest and incapacitated in specific categories and adding promotive aspects as the programs expand to include poor households in broad categorical groups and extending the coverage of public works-based programs for the able-bodied poor. The total costs might range from US\$37 to \$109 million per year (K.183-545 billion) to cover between 10 to 25 percent of the poorest population. This would be the equivalent of 0.2 to 0.5 percent of GDP.

Table 1: Three Illustrative Options for the Scale of a National Safety Net System

	Model A Poorest 5-10%	Model B Poorest 15-20%	Model C Poorest 25%+
<i>Description</i>	Cash grants to the destitute in specific categories (orphaned, elderly, ill, disabled, who are <i>not</i> living in households that can support them).	Model A nationwide plus: cash grants with human capital building conditions to broad categorical groups (all elderly, HHs with children) in selected extremely poor districts.	As in Model B plus: Nationwide program of public works employment and transfers linked to agricultural productivity for the able-bodied poor.
<i>Targeting</i>	Nationwide. Community-based targeting (CBT) using the existing SCTS system	Model A nationwide plus a combination of geographical and CBT for additional beneficiaries.	Model B plus a combination of self- and geographical targeting for PWP and agricultural programs.
<i>Rationale</i>	Relatively cheap and easy to deliver. Simplest to target and identify narrow categorical groups. Politically and socially acceptable.	Relatively easy and socially acceptable to target broad categorical groups in poor areas. Reliance on conditional transfers to increase long-term impact and political acceptability.	Greater reliance on productive interventions (agricultural and public works), and conditions to be met by beneficiaries to increase long-term impact and social and political acceptability
<i>Approximate Coverage</i>	200-300,000 households <i>(655,000-1.3 million indiv.)</i>	325-437,000 HHs <i>(2-2.6 million individuals)</i>	546,000+ HHS <i>(3.3 million+)</i>
<i>Approximate Annual Cost /a</i>	K.183 b. <i>(US\$37 million)</i>	K.366 b. <i>(US\$73 million)</i>	K.545 b.+ <i>(US\$109 m.+)</i>

Notes: a/ Costs are illustrative based on the mid-point of the range (7.5 percent of the population for Model (A) and 17.5 percent for Model (B). Aiming to cover the higher and lower ends of the range would cost proportionally more or less. Note that the costs do not increase linearly because programs with higher coverage involve different program instruments and provide lower total benefits to those who are not entirely destitute.

26. These approaches are not perfect – they will inevitably involve targeting errors, but they have several benefits. They are easily understood, are feasible to implement with the available capacity, and, by using well-defined criteria, should be widely politically and socially acceptable.

27. Targeting is going to remain a challenge. The only solution is to keep trying different approaches, and refining them as lessons are learned. The ongoing evaluation and targeting assessment of the Social Cash Transfer Scheme is likely to yield a thorough evaluation of the targeting methods that are currently being used in Zambia, and this along with the recent Living Conditions Measurement Survey (LCMS) data should make it possible to reassess the targeting criteria within the coming year.

28. Finally, whichever scale of coverage is adopted, it makes sense to strengthen the link between transfers and nutrition support and to consider making greater use of public works employment for the poor in Zambia.

29. *Making the Link with Child Malnutrition.* Given the high levels of chronic malnutrition in Zambia, it would make sense to require beneficiaries of cash transfers and public works to participate in a series of nutrition interventions that have proven to be effective, including nutrition and hygiene education, growth monitoring and promotion, and therapeutic feeding for severely malnourished children. This would be appropriate because (i) increasing households' food security, while good in itself, will not automatically translate into reductions in chronic malnutrition and (ii) because these beneficiaries constitute a pre-selected and appropriate target group for nutrition support programs.

30. *Greater Use of PWP.* It is recognized that there are challenges involved in increasing the use of PWP in Zambia, including the disbursed population, the lack of an existing program structure, and the seasonality of farm labor requirements, but these are not insurmountable. The key would be to focus on large-scale routine works (such as village road maintenance or reforestation) to sustain the flow of employment transfers over time and to avoid having to manage a large stock of complex capital projects. This approach would also make it possible to use existing institutional capacity (such as district works and maintenance systems) to manage operations as well as existing expenditures to finance some of the program (for example, by using maintenance budgets to employ the seasonally

poor on roads near their villages). It should also be possible to use the existing PUSH framework to employ more of the urban and peri-urban poor. Getting the approach right will require some experimentation, but we recommend that these options be explored.

Fiscal Space and Affordability

31. Robust economic growth and improved macroeconomic management have put Zambia in the enviable situation of being able to afford greater spending on safety nets. The government's fiscal prospects at moment look promising, with forecast annual revenue increases of about K.2 trillion (US\$420 million) over the next few years.
32. There are clearly numerous legitimate ways to increase spending in ways that could benefit the poor, including investing in education, health care, roads, electricity, and agricultural productivity and employment creation. However, experience in Latin America and in some countries in Africa (such as Ethiopia and Kenya) has shown that large-scale spending on well-designed safety net transfers can immediately reach the very poor in ways that these other expenditures cannot.
33. The amounts involved are not huge. The US\$73 million (K.366 billion) to reach the poorest 15-20 percent of the population (Model (B)), for example, is equivalent to only about 2 percent of total public spending.
34. A proportion of the costs can be financed using existing expenditures, funds that are already flowing into the SCTS, the Food Security Pack, and PUSH programs. Money that would be spent anyway on maintaining village-level and urban roads could employ very large numbers of able-bodied poor in temporary jobs. Also, there is considerable scope for re-directing existing transfers that currently go to the non-poor. To illustrate, if the K.2.5 trillion being spent on transfers of all kinds in Zambia in 2010/11 were all targeted to the poorest 39 percent of the population, it would be enough to provide a transfer of about

K.36,000 per capita per month, which would almost entirely eradicate the food gap. It is recognized this is not realistic as there are political economy considerations involved in reallocating expenditures because the existing programs have strong beneficiary constituencies. However, if the government's intention is to reach the poorest Zambians, those who have been left behind by growth, then the same transfer money would be more effective if directed elsewhere.

35. It would be useful to have a national debate at the policy and political level about how much to spend on safety net transfers vis-à-vis other poverty-reducing investments to establish a framework for spending and programming decisions. This report provides some of the material for such a debate. The whole envelope of current spending on transfers would need to be considered, including the FISP and FRA spending as these expenditures account for the largest single chunk of money that is being spent to benefit individual households, and their distributional impact needs to be taken into consideration. In the same vein, discussions about funding for school feeding, any successor to SPLASH, and other transfer programs need to be coordinated with those on expenditures on, for example, expanded social cash transfers to yield a single integrated set of decisions on where money can best be spent.

Short- to Medium-term Measures

36. The report suggests the following steps that can be taken within the coming one or two years to both strengthen existing programs and to put Zambia on the path to a unified national safety net system:

- Continue the phased expansion of the SCTS, improving targeting by developing a single beneficiary registry that can be used for multiple programs. Move towards adopting electronic means of paying transfers. Build M&E capacity. Based on the

assessment of targeting systems (July 2013), determine the best model for the nationwide roll-out of the SCTS.

- Start developing the nutrition link with the SCTS (and other transfer programs) that will require program beneficiaries to participate in nutrition education, growth monitoring and promotion, and therapeutic feeding for severely malnourished infants.
- Evaluate PUSH and assess the options for expanding the employment of the poor on public works using existing recurrent programs (road maintenance, reforestation, land improvement, and urban works). Examine the experience of other countries with public works schemes.
- Undertake an evaluation of geographical targeting and its targeting effectiveness, including small-area poverty mapping estimation using 2010 LCMS data.
- Develop a successor to the SPLASH program as part of the integrated SCTS/nutrition-linked program (above).
- Critically and rigorously evaluate experience with the Food Security Pack program before expanding it as part of the national safety net strategy.
- Start reducing the coverage and subsidy level of the FISP and, at a minimum, geographically target it to the poorest areas. If input subsidies are retained as part of the safety net/transfer system, turn the FISP into a targeted subsidy for poor farmers (for very small amounts of inputs) and combine it with a reformed version of the FSP.

- Map out the costs of the options for expanding the School Feeding Program. Critically examine the educational benefits and logistical challenges. Re-assess these expansion plans in comparison to other safety net spending choices.
- If the Disability Allowance program is to go ahead, include it with the targeting base and system of the expanded SCTS scheme.
- Critically review the poverty targeting effectiveness of OVC bursaries and consider integrating its targeting with that of the SCTS.³
- Integrate the Public Welfare Assistance Scheme with the expanded SCTS over time.
- Look at further options for linking transfers with interventions to enhance agricultural productivity for the poorest subsistence farmers. These options might include linking transfers to seasonal micro-credit, extension services, and/or small-scale irrigation.
- Assess the options for adding more conditions to cash transfers beyond the link to nutrition, including examining any kinds of behavior that it might make sense to target, whether there is enough delivery capacity, and the benefits and drawbacks of applying these conditions in different sectors.
- Postpone the introduction of an Old Age Pension for the time being as a much larger number of the poorest could be helped by spending the same money on an expanded SCTS. If the OAP is to be introduced, consider: (i) rolling it out slowly, concentrating on the poorest districts, as part of the expanded categorical SCTS

³ Whether the targeting of OVC bursaries should be linked with the SCTS targeting requires further analysis. The SCTS targeting mechanism can potentially identify OVCs from target households. However, given that the two programs target different groups and given the lack of a true poverty filter in the SCTS, it may make more sense to use the CWAC model set up for the SCTS to target the OVC bursaries.

(Model (B)) and/or (ii) initially keeping the age limit high and the transfer amount low and expanding it in the future.

Strategy and Institutional Development

- As part of the forthcoming development of a social protection policy, develop an explicit national social safety net and transfers strategy that provides a framework for making expenditure decisions.
- As part of this process, hold a national debate on trade-offs and choices between spending on different safety net and transfer programs, including who currently benefits from various programs (perhaps involving presentations by the group working on the policy to Parliament or the President)
- Carry out independent impact evaluations that can rigorously and objectively evaluate the impact of all programs and develop the capacity (probably in the Ministry of Finance) to coordinate these evaluations. This could perhaps be financed with a small proportional charge on each program.
- As part of these evaluations, consider adding a safety net/transfers module to the next LCMS to gather data that will make it possible to regularly assess the effectiveness of safety net programs in terms of their coverage, benefit incidence, and adequacy.
- Define a central agency with oversight responsibility for the coordination and expenditure planning of all safety net and transfer programs. This agency might be located within the Ministry of Community Development, Mother and Child Health (MCDMCH) or the Vice-President or President's office, but regardless it must be somewhere that has no vested interest in implementing any particular program(s).

- Move towards a common national targeting system, an integrated management information system (MIS), and a unified registry of beneficiaries, all of which would underpin a unified national safety net system.

CHAPTER I: Introduction

37. Zambia is well-endowed with mineral resources and agricultural potential. It is geographically large and, with a population of 13 million, is relatively sparsely populated. Together these factors constitute a recipe for prosperity. However, much of Zambia is still in transition from subsistence agriculture, and weak historical endowments of education and infrastructure combined with inconsistent economic management have led to a sporadic history of growth since independence in 1964.

38. Zambia has experienced a strong economic recovery and robust growth in the past 10 years, but this has had little impact on the country's high rates of poverty. Inequality is also very high, both between urban and rural areas and between the living standards of the small emerging middle class and those of the rest of the population.

39. Because the economic path that has been pursued so far has not worked for many Zambians, the time is right to ask whether different approaches should be tried, including whether spending more on productive safety nets and transfer programs can accelerate the rate of poverty reduction.

40. Such programs potentially have a number of attractive attributes – they can raise the productivity of the poor while increasing their immediate consumption; they can support investments in human capital and thus help recipients to escape from the intergenerational poverty trap; they can provide transitional support while waiting for the fruits of other longer-term development efforts (for example, roads, education, market development, and agricultural transformation); and they make it possible to target support very accurately to particular groups and areas.

41. The new Patriotic Front Government of Zambia is keen to re-examine the country's current strategy for helping the poorest, but it is not clear how best to do this. This report

examines the choices available to the government and lays out the costs, benefits, and likely poverty impact of each of the options. The study set out to address three questions:

- What role could spending on transfer programs play in Zambia's national development strategy over the next decade or so?
- Which aspects of poverty does it make the most sense to address using transfer programs as opposed to other public policy instruments?
- Which programs represent the most cost-effective choices to reduce poverty?

42. The primary objective is to inform the debate within Zambia and help policymakers and the planners to reach well-informed decisions about the most effective way forward. The current fiscal situation is fairly robust, and the government has the space to consider some new options. However, Zambia's fortunes remain susceptible to currents in the world economy, so the government needs to be cautious about committing to new entitlement programs.

43. A lot of money is already being spent on transfer programs that are not particularly well-targeted and that mostly do not reach the poorest. There are several very large agriculture-related programs that consume about 14 percent of public spending,⁴ which means that there is considerable scope for redirecting expenditures to interventions that could better help the poor.

44. The rest of this report: (i) looks at the dynamics of poverty in Zambia and at which aspects of poverty can realistically be addressed by transfer programs; (ii) examines the fiscal space available for funding safety net programs; (iii) analyzes the effectiveness of existing programs and of potential new program choices; (iv) assesses what role productive transfer programs might play in Zambia's long-term development strategy and the trade-

⁴ See Chapter 4. Based on spending of US\$498 million (for the FISP, the FSP, and the FRA) and total public expenditure of US\$3,647 million equivalent in 2010.

offs with other poverty-reducing public investments; and (v) makes some specific suggestions for future programming and for strengthening existing efforts.

45. The report examines the ways in which the government currently spends money to provide direct transfers to Zambian households (as well as some options used elsewhere but not currently in Zambia) to assess which are the most cost-effective for accelerating poverty reduction. In this report, the term “safety nets” is used to refer to non-contributory transfer programs, generally targeted in some manner to the poor and vulnerable. Safety net programs are meant both to catch those falling downward economically before they become destitute and to provide assistance or a minimum income to the permanently poor.⁵ The best of them can enable households to make a permanent transition out of poverty by helping them to build their human capital or increase the returns to their labor – either on the farm or off it. The programs examined include agriculture-related transfers, targeted unconditional cash transfers, in-kind transfers, school feeding, programs supporting OVCs, and public works employment-based programs.

⁵ Grosh et al (2008).

CHAPTER II: Growth, Poverty, and the Role of Safety Nets

2.1 Poverty Overview

46. Despite robust growth of 5.7 percent per annum in the recent past (2002-2010), poverty in Zambia remains stubbornly high (the 2010 LCMS indicates a headcount poverty rate of 60 percent) and 39 percent of the population are estimated to live in extreme poverty, with insufficient consumption to meet their daily minimum food requirements.⁶

47. Poverty has declined only marginally, down from 68 percent in 1996. The absolute number of poor has in fact continued to increase, from about 6 million in 1991 to an estimated 7.9 million in 2010⁷ – mainly because of population growth.

48. This immediately tells us two things: (i) that the *pattern* of growth must be highly unequal and (ii) that growth is not increasing the incomes of the poor rapidly enough to lift them out of poverty. The implication is that, in addition to other measures needed to shift to a more pro-poor growth path, it is worth considering new and/or additional approaches to reach the poorest, including giving a larger and more effective role to redistributive transfers and productive safety net programs.

⁶ Based on World Bank computations using LCMS data. Note that the CSO's processing of the data indicated an identical basic needs poverty rate but a slightly higher estimate of extreme poverty (42 percent). Given the accuracy with which these variables are measured, the differences are not statistically significant.

⁷ UNICEF (2008b), p.4.

Box 2: Data Sources

This profile of poverty is constructed from numerous data sources, including, but not limited to, the 2007 Demographic Health Survey (DHS), the 2005 and 2008 Integrated Labor Force Surveys (ILFS), the preliminary results of the 2010 Census, the excellent analyses done by the Food Security Research Project group using Post Harvest and Supplemental Surveys that have tracked the welfare and economic activities of rural households over time, the annual In-Depth Vulnerability and Needs Assessments done by the Zambia Vulnerability Assessment Committee, and the 2006 and 2010 Living Conditions Measurement Surveys (LCMS) done by the Central Statistical Office (CSO). The LCMS measured household consumption at a nationally representative level and measured the consumption of own-production food, which represents the largest share of the income of the poor.

49. Table 2 shows the estimated number of poor people in Zambia in 2010.

Table 2: Estimated Numbers of Poor, 2010

<i>Population living below:</i>	Proportion of Population	Number of People	Approx. No of Households
Basic Needs Poverty Line	60.5%	7.9 million	1.6 million
Food Poverty Line	39.3%	5.5 million	1.1 million
Bottom 20% of Population	20%	2.6 million	520,000

Source: Author's calculations based on World Bank processing of 2010 LCMS data.

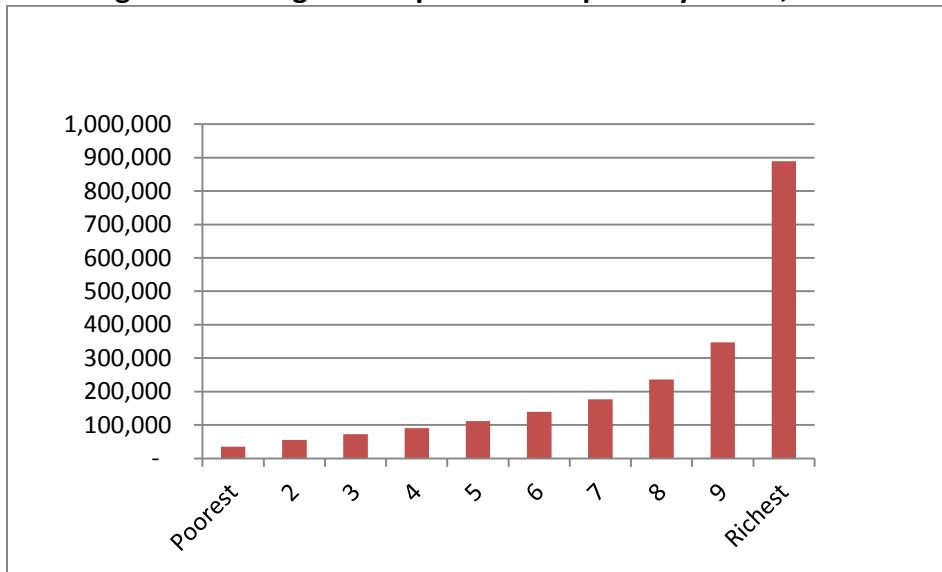
50. It is unlikely that any government would want to provide transfers to 60 percent of its population. To do so in Zambia would be expensive (in the order of US\$350 to 400 million per annum)⁸ and would potentially distort incentives and undermine broader development efforts. Therefore, the question is whether there are specific aspects of poverty or distinct groups of the ultra-poor that it makes sense to target with safety nets and which safety net interventions can best increase their productivity and lift them permanently out of poverty.

51. Figure 1 shows the distribution of consumption based on the 2010 LCMS. It clearly shows the large number of poor people in the bottom 60 percent of the population with

⁸ Even providing only the relatively modest amount of \$15 per household per month would cost about US\$350 to 400 million annually (based on a family of five and 25 to 35 percent overheads and leakage. Even this assumes very good targeting.

apparently uniform consumption. The rest of this chapter explores the story behind this distribution and what it tells us about the design and targeting of safety nets.

Figure 1: Average Per Capita Consumption by Decile, 2010



Source: Author's construction based on World Bank processing of 2010 LCMS data

Note: Kwacha per month per adult equivalent

2.2 Growth and Poverty in Zambia

52. Total national income has risen by more than 56 percent in the past eight years,⁹ and per capita GPD increased from about US\$850 in 2002 to US\$1,280 in 2010. However, the national poverty rate declined only marginally from 67 percent in 1996 to 60 percent in 2010.¹⁰

53. Analytical work generally confirms this weak impact of growth on poverty.¹¹

Although recent estimates of poverty incidence curves¹² suggest that growth has had a

⁹ Based on 5.7 percent per annum real GDP growth between 2002 and 2010 and population growth averaging 2.8 percent per annum.

¹⁰ There are varying estimates of the changes in poverty rates; these are taken from CSO (2011a) based on successive LCMS measurements.

¹¹ Klassen S. (2011)

¹² Klassen (2011).

somewhat positive impact on the incomes of the poor, if the household surveys are correctly measuring consumption, then poverty has remained almost unchanged during this period of strong growth.

54. There are three dimensions to the pattern of growth – in any country – that determine how it affects poverty levels: (i) the sectoral composition of growth; (ii) its geographic distribution; and (iii) its structural elements (for example, the extent to which it generates employment and the links and multipliers that affect how the benefits of growth spread among communities and families).

55. In Zambia, growth has historically been concentrated in the modern sector, in urban areas, and in capital-intensive industries such as construction, mining, and transport, while the vast majority of the very poor derive their livelihoods from non-commercial agriculture, a sector that has until recently experienced dismal growth.¹³ While bumper harvests in the past three years have begun to reverse this trend, most of the benefits have accrued to larger farmers.

56. The recovery of the mining sector, coupled with the expansion of urban trade and services that mostly cater for the urban middle class, have been the main drivers of economic growth in the past decade. Copper mining and processing remains the mainstay of the economy. However, mining is concentrated in the Copperbelt region. It is not particularly labor-intensive and has only weak links with the domestic rural economy. Manufacturing growth has been sluggish,¹⁴ with only 2,000 jobs reportedly added between the 2005 and 2008 Labor Force Surveys at a time when the labor force grew by an estimated 500,000 people.

¹³ Eighty-three percent of the poorest live in rural areas, and the vast majority of these are engaged in subsistence agriculture (see section 2.8 on the livelihoods and employment of the poor).

¹⁴ Contributing only 0.3 to 0.4 percentage points to annual GDP growth in the past five years (World Bank, 2012b, p.3).

57. Furthermore, a significant share of output does not translate into household income gains. This is particularly true in extractive sectors like mining that have high foreign ownership levels and is common in resource-based economies.¹⁵ As a result, the high growth in gross domestic production has not resulted in a corresponding increase in net national income. (By one estimate, on average about 10 percent of GDP has *not* translated into gross national income over the past three decades.)¹⁶

58. As a result, there are large numbers of the poor who are left behind, for whom safety net transfers can increase their consumption in the short term while equipping them to participate more fully in the growth process in the longer term. (For example by improving child nutrition and productive potential, or providing them with the small amounts of cash necessary to purchase agricultural inputs, or to invest in petty trading.)

59. The links between economic growth and the incomes of the poor are weak for many reasons. The poor tend to live in areas that are remote or poorly connected by transport. Also, markets are only weakly integrated with each other, and most of the poorest have only a tenuous engagement in the cash economy. For example 73 percent of smallholders do not market any of their maize production,¹⁷ and *cash* incomes among the poorest average only about US\$5 per capita per month.¹⁸ These links are also weak because of the low labor-intensity of growth and low returns to labor in the sectors where the poor work (in subsistence agriculture and in the informal sector where the excess supply of labor puts a constant downward pressure on real effective wage rates). Finally, low skills and education levels also prevent the poor from taking advantage of any opportunities that may arise. More broadly, however the linkages and transmission systems in Zambia are not well

¹⁵ The government is acutely aware that more inclusive growth will depend on capturing a fair share of the economic rents from mining. Partly to address this, in the 2012 budget it doubled royalty rates on copper and other base metals to 6 percent.

¹⁶ For example in 2011 dividend outflows from mining were estimated at 15 percent of GDP, while mining taxes amounted to little more than 2 percent (World Bank, 2010b, Figure 1, p.7, based on UN statistics).

¹⁷ Sitko et al (2011) Table 7, p.36.

¹⁸ Bottom 20 percent of the rural population - see subsequent section on rural livelihoods.

understood, and more research is needed to understand why the benefits of growth are not being transmitted.

2.3 Inequality

60. The distribution of income in Zambia is extremely unequal. The country has a Gini coefficient of about 0.52,¹⁹ which compares with levels of 0.54 in highly unequal economies such as Brazil and of 0.38 in fairly equal societies such as Vietnam and Tanzania.²⁰ Inequality has been increasing in the recent past, which is to be expected with the increasing urbanization and monetization of the economy.

61. In 2010 the poorest 10 percent of households lived on only about one-tenth of the income of the average Zambian household.²¹ According to the 2010 LCMS, the poorest 20 percent of the population received less than 1 percent of total monthly household income, while the richest 10 percent received 52 percent.²²

62. Such high inequality implies that spending on productive safety net programs potentially has a large role to play in reducing poverty. First, in purely arithmetic terms, a relatively small proportional amount transferred from the well-off results in a relatively large proportional increase in the consumption of the worse-off. Second, such persistent inequality suggests that the current pattern of growth is not reaching the poor and that other interventions are needed to bring them into the cycle of prosperity that Zambia is experiencing. Among these is the potential greater use of productive safety nets that can spread the benefits of growth to the poorest more quickly.

¹⁹ Household per capita consumption inequality - an estimate based on the World Bank's processing of 2010 LCMS data

²⁰ World Bank GINI estimates, various years.

²¹ Estimated based on estimates of K.19,688 per capita per month in the bottom decile and a national average of K.213,885. Constructed from data in Table 10.8 of CSO (2011a) using 2010 LCMS data.

²² CSO (2011a), Table 10.8, p.151 using 2010 LCMS data.

63. There are strong geographical and sectoral elements to inequality (see subsequent discussion), with extreme poverty being much higher in rural areas (53 percent) than in urban areas (13 percent)²³ and among subsistence farmers than among households that have a connection to the modern sector, the cash economy, or wage employment.

2.4 Recent Poverty Developments

64. It is possible that poverty in the immediate past has declined more than the household survey data suggest. Agricultural growth has been robust during the last three years, and the strong national economic growth may be taking some time to trickle down into the sectors (and areas) that generate incomes for the poor.

65. The most significant short-term development has been the tremendous increase in agricultural output in the past three years. Agricultural GDP growth has averaged 7.2 percent per annum since 2009,²⁴ and much of this is accounted for by a massive increase in the production of maize – the staple food crop in Zambia – which has more than doubled since the 2008 season.²⁵ Since the majority of maize is consumed on-farm by smallholder farmers, it seems inconceivable that this has not had a significant consumption effect. (See the discussion below in Section 2.9 on agriculture and food security.) However, as will be discussed in Chapter 3, these gains have accrued on average to larger farmers, and to the extent that they are due to extensive input subsidies and a run of good weather, it is also quite possible that they will not be sustainable.

66. Set against these positive improvements is the impact of inflation (estimated at about 60 percent between 2006 and 2011 with food price increases of about 30 percent in

²³ As computed by the World Bank from LCMS 2010 data on household per capita consumption and extreme Poverty headcount.

²⁴ Author's calculations based on Table p.17 of the CSO Monthly Bulletin, December 2011.

²⁵ Based on production of 3.02 million metric tons in 2010/11 and 1.45 million in 2007/08 (CSO Monthly Bulletin, December 2011, p.18).

2009-10 alone).²⁶ It seems unlikely that the purchasing power of the poor will have kept up with these price increases, which means that their consumption has been negatively affected.

67. On balance we cannot say what the net impact of these changes has been on poverty levels until the next household survey is done, but it would seem likely that poverty has decreased somewhat more than the 2010 LCMS data would suggest. Note that in purely qualitative terms, 23 percent of the population perceived themselves as being better off in 2010 than in 2006.²⁷

68. Finally, the explanation for the modest reduction in the share of the population living below the poverty line may also be that many Zambians who were initially poor at the beginning of the period (say in the 1990s) had incomes so low that even robust growth has failed to bring them above the poverty line, although it has nonetheless substantially increased their consumption.

69. Some of the evidence tends to support this view, as the *depth* of poverty appears to have decreased substantially in the recent past. For example, the poverty gap ratio (which measures the distance the poor live below the poverty line) declined from 62 percent in 1991 to 27 percent in 2010.²⁸ Also, the depth of extreme poverty also decreased to be 14.4 percent in 2010. The implications are that the amount of transfer needed to bring households up to the poverty line may be fairly modest and declining over time and that safety net transfers may only need to be paid for a transitional period to many households because they will rise out of poverty over the coming decade if these trends continue.

²⁶ This estimate is based on estimated annual food CPI changes between January 2009 and January 2010 using data from the June 2011 IMF Extended Credit Facility Review (IMF, 2011).

²⁷ According to CSO (2011a) (p.211), 16 percent reported their condition as being worse off and 60 percent as unchanged.

²⁸ Based on World Bank calculations using 2010 LCMS data.

Table 3: Depth of Poverty, 2010

	Depth of Extreme Poverty	Depth of Basic Needs Poverty
National	14%	27%
Urban	4%	13%
Rural	20%	35%

Source: World Bank (2012a) based on 2010 LCMS data. Note the definition of the poverty gap used here represents the share of total income needed to fill the gap; the actual average shortfall of the consumption of the extreme poor as implied by the LCMS data is about 36 percent of the food poverty line.

2.5 What Do We Mean by Poor?

70. Table 4 shows the food poverty line, which is used as the cut-off point to define the extreme poor in this document, and the basic needs poverty line, which adds an allowance for basic non-food consumption and is used to define the poor. The food poverty line corresponds to a caloric intake of 2,750 kcal per adult equivalent. Annex Table 1.1 shows the food basket and costs that underlie this poverty line.

Table 4: Estimated Poverty Lines, 2010

	Kwacha per Month	US\$ per day /a	US\$ per month
Food Poverty Line	98,505	\$0.68	\$20.52
Basic Needs Poverty Line – Rural	146,054	\$1.01	\$30.43
BN Poverty Line – Urban	180,551	\$1.25	\$37.61

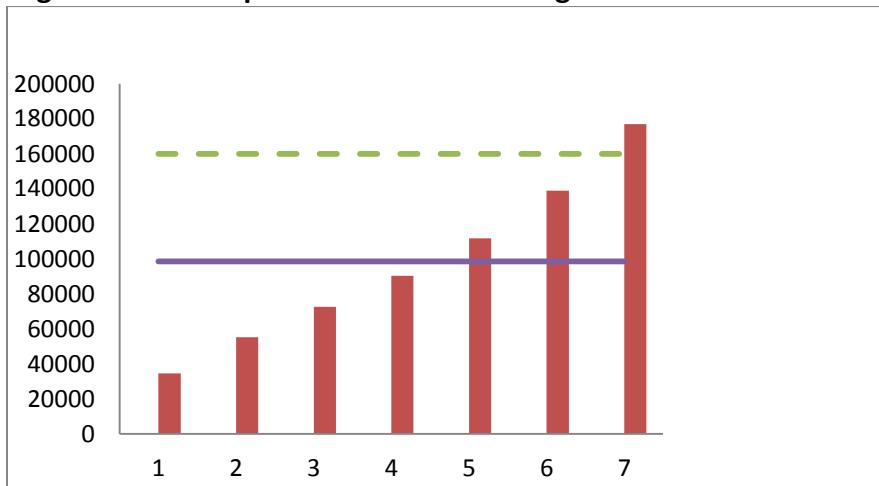
Source: World Bank (2012a) based on 2010 LCMS data.

Notes: Kwacha per adult equivalent per month.

a/ Based on 2010 exchange rate of K4,800 and 30 days per month.

71. However, the ultra-poor are not uniformly distributed below even the food poverty line. Figure 2 shows the monthly consumption of households living below the basic needs (dotted line) and the food poverty line (solid line).

Figure 2: Consumption Differences among the Bottom 70 Percent



Source: Author's calculations, based on World Bank processing of 2010 LCMS data

72. It is immediately clear that people in the poorest two deciles are much worse off than the poor in general. As Table 5 shows, by these estimates the poorest 10 percent are consuming about US\$0.23 per day and those who are slightly better off are still consuming only the equivalent of US\$0.38 per day.

Table 5: Average per Capita Household Consumption Levels among the Very Poor, 2010

Income Group	Average Per Capita Household Consumption (Kwacha per month)	US\$ per day a/	US\$ per annum
Poorest 10%	34,363	\$0.23	\$84
2 nd Decile	55,569	\$0.38	\$139
3 rd Decile	72,654	\$0.50	\$183
Zambia Average	248,463 /b	\$1.57	\$573
Richest 10%	888,974	\$6.17	\$2,253

Source: Author's calculations, based on World Bank processing of 2010 LCMS data.

Notes: a/ Based on 2010 exchange rate of K.4,800.

b/ World Bank (2012a).

73. Can people really be this poor, especially in a US\$1,280 per capita GDP country? Household surveys tend to under-measure income at the bottom end of the spectrum – especially when much of that income consists of own-production consumed on-farm – and we know that the recent LCMS was conducted during the lean season. However, other evidence seems to support this picture. For example, work by the Food Security Research

Project found that average per capita household income was US\$0.26 per day among the rural poorest 25 percent.²⁹ The 2008 Labor Force Survey found that, for the 63 percent of the labor force classified as self-employed (which includes most of the poor), average earnings were less than K.270,000 per month (equivalent at the time to about US\$0.62 per capita per day).³⁰

2.6 Characteristics of the Poor

74. When direct information on incomes is not available, programs often rely upon household characteristics such as the assets they own, or household composition as proxies to identify the poorest. In Zambia, however, especially in rural areas with high uniform poverty, there is little variation in the ownership of assets at the village level.

75. Table 6 for example shows the quality of housing among the bottom 60 percent of the rural population as measured in the recent LCMS. Housing quality is one of the main proxy indicators since it is easy to observe and difficult to conceal. Note that the proportion of households with “poor or unimproved” quality walls or roofing is almost identical (over 95 percent) among almost all of this group. A similar pattern emerges for other household assets (such as household goods and poultry), with little variation in ownership among rural households except for obvious high-end assets such as cars or cattle, which increase with wealth but only among the much better-off. This confirms that proxy means testing based on assets will be of little of value in distinguishing the very poor from the poor in general in rural Zambia.

²⁹ K.176,858 per household per month (2008) among the bottom 25 percent of those who remained consistently poor (Chapato et al, 2011, Table 5, p.17).

³⁰ Based very roughly on 1.5 working-aged adults per household and an average HH size of 5.4 and an exchange rate of K.4,000/US\$1(2008). Earnings data from the 2008 Integrated Labor Force Survey (CSO, 2010b, Table 10.8, p.92).

Table 6: Asset Distribution among the Poor – Housing Attributes by Decile, 2010 (Rural)

Consumption Decile	Unimproved Roof	Unimproved Wall	Unimproved Floor
1	0.97	0.77	0.92
2	0.97	0.73	0.92
3	0.97	0.70	0.87
4	0.95	0.68	0.83
5	0.95	0.61	0.78
6	0.94	0.63	0.80

Source: Author's calculations, based on World Bank processing of 2010 LCMS data

76. The ownership of other assets, such as livestock, and land cultivated, is also very similar across almost all households in the bottom half of the rural population. Land ownership – especially landlessness – is often highly correlated with extreme poverty in subsistence agricultural societies. Except in a few areas, this appears to be less the case in Zambia than in other countries in the region, partly because land scarcity is less of an issue. (See subsequent discussion on the relationship between land ownership and poverty in Section 2.9 below on agriculture and food security.)

77. There is also fairly little correlation between household composition and poverty rates, except that very large households tend to be poorer and elderly-headed households tend to be poorer than average (Table 7). Notably, the 2010 LCMS found almost no difference in poverty rates between male- and female-headed households.

Table 7: Extreme Poverty Rates by Household Characteristics, 2010

Household Size	Extreme Poverty (%)
1-2	12.1
3-4	27.1
5-6	37.8
7-8	45.7
9+	50.7
Male-Headed	38.8
Female-Headed	41.3
Elderly-Headed	47.7
National Average	39.3

Source: CSO (2011a) using 2010 LCMS data.

78. Table 8 shows estimated extreme poverty rates among households with different characteristics that are typically used to target transfer programs (for example, child grants, old-aged pensions, or containing orphans or only elderly people and children).

Table 8: Extreme Poverty Rates for Different Household Compositions

Household Characteristics	Extreme Poverty Headcount	No. of people living in these HHs that are extremely poor	Contribution to extreme poverty by extreme poor living in these HHs	No. of people living in these HHs that are not extreme poor
HHs w children <5	42.58%	3,539,484	69.01 %	4,772,547
HHs with Elderly 60+	46.78%	997,953	19.46 %	1,135,374
HHs Containing Single Orphan	36.62%	1,372,966	26.77 %	2,375,916
HHs Containing Double Orphan	34.67%	487,369	9.50 %	918,267
HHs Containing Only Elderly and Children	49.17%	118,094	2.30 %	122,092
HHs Containing Elderly and Children w/ at least 1 Orphan	60.26%	59,399	1.16 %	39,178
National:	39.29%	5,129,015	100 %	7,926,854

Source: World Bank calculations using 2010 LCMS data

79. There are some striking results in Table 8. For example, households containing orphans are somewhat less poor than average, while households containing the elderly are only very slightly poorer than the national average, which means that neither of these criteria is a good way of targeting programs to the poorest. Households containing only the elderly and children (and no working-aged adults) are only 10 percentage points poorer than the average.³¹ The implication of these findings is that using high dependency ratios to target programs is probably not very effective. Finally, the only category that shows a pronouncedly higher likelihood of being extremely poor is those households that contain only the elderly and orphans, with no working-aged adults.

³¹ The explanation for this may be that some urban households send their children back to the village to live with their grandparents while attending school, and such extended families, being urban-based, are far less likely to be below the food poverty line.

80. Since consumption data are collected at the household level, it is difficult to say how much poorer on average women are than men. There is no doubt that girls and women suffer greater deprivation in several areas (for example, they have lower education levels and they face significant risks associated with reproductive health), but in consumption terms, women are distributed evenly across the spectrum,³² and child malnutrition rates are slightly lower among girls than among boys. One area in which women do seem to be particularly disadvantaged is with respect to widowhood and the loss of productive assets. One consequence of the AIDS epidemic is a sharp increase in the number of widows whose income tends to decline as they lose control of productive assets. As in many cultures, land is often seen as belonging to the husband's family and, in some cases (though not all), reverts to them on his death. This effect is exacerbated by a more general tendency of family members to strip new widows of productive assets. One study showed that 27 percent of widow-headed households cultivated less than half the land that they had when their husbands were alive.³³ The tendency was greater in the case of younger widows and less pronounced for older ones, some of whom were fairly well-off, suggesting that while widowhood may be a useful criterion to consider in targeting safety net support, narrower targeting would be needed to distinguish the poorest widows.

2.7 Geographic Aspects of Poverty

81. There are two defining characteristics of Zambia. The first is that it is vast and sparsely populated, nearly the area of France and Germany combined, with only 10 percent of the population. The second is that it is heavily urbanized (34.7 percent according to the 2010 LCMS) compared to other countries in southern and eastern Africa. This is in part due to the effect of the mining industry, but it is not a recent phenomenon as Zambia was highly urbanized even 60 years ago at the time of Independence.

³² This does not mean that they may not consume less because of uneven distribution of food within households, but there are no empirical data available for assessing the degree of these intra-household inequalities in Zambia.

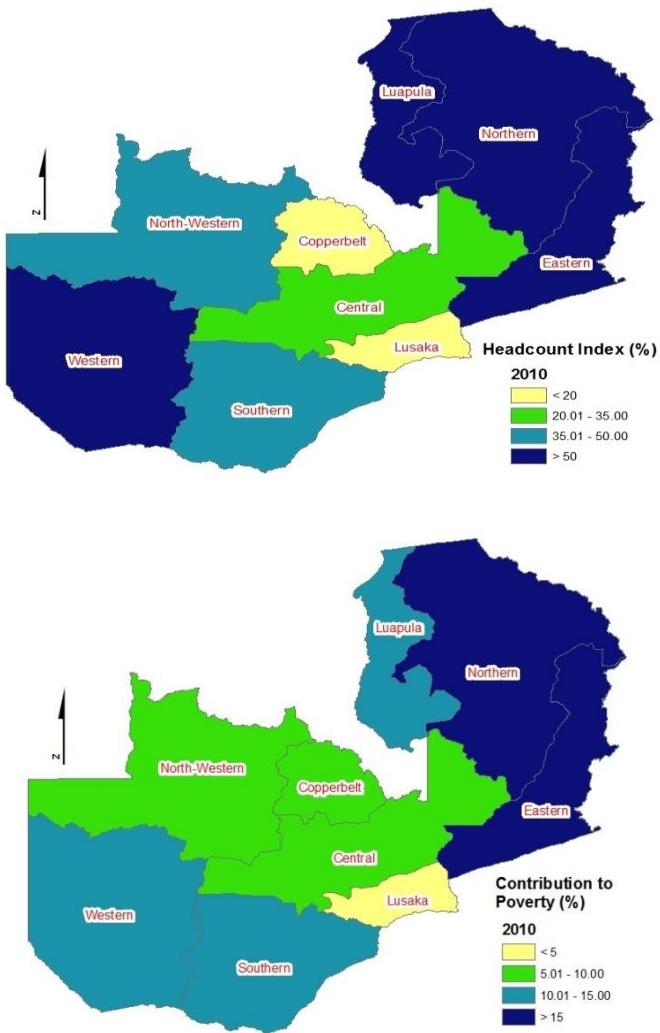
³³ Chapato et al (2006).

82. Given the scale of the country and dispersion of the population, the question of geographical targeting is critically important. Most current programs are not targeted geographically, and, as will be seen in the next chapter, their coverage of the poor is weak. On the other hand, the relatively recent Social Cash Transfer Scheme (SCTS) has gone for a form of narrow geographical targeting to try to reach the poorest at a reasonable cost. So understanding the geographical patterns of extreme poverty is critical to determining how to proceed with a safety net strategy.

83. Zambia consists of a number of distinct economic and eco-agricultural areas that – because of the size of the country – are only weakly inter-connected.

- The Copperbelt and Lusaka are characterized by modern sector development and in-migration from elsewhere.
- Luapula and the Northern regions have been sources of labor and out-migration.
- Southern and Central Provinces are mixed farming regions, while parts of Western and Southern provinces are cattle-grazing areas, with large differences in wealth and income.
- The Eastern province is more typical of the poor smallholder farming that is common in Zambia's neighboring countries.

Figure 3: Extreme Poverty by Province Level (left panel) and Contribution to Extreme Poverty (right panel)



84. These geographical/economic areas correspond broadly to the nine provinces shown in Figure 3.

85. With the exception of the heavily urbanized Copperbelt and Lusaka, poverty rates are high in all of the provinces. Furthermore, Gini coefficients are high (and almost identical) in all of the provinces, and therefore very little poverty is explained by between-province differences. This not surprising given that provinces are large and are defined by administrative boundaries. However, there is more variation at the district level and – perhaps more importantly – significant variation in the depth of poverty below the district level.

Table 9: Extreme Poverty and Inequality by Province, 2010

Province	Food Poverty Headcount /a	Depth of Food Poverty /a	Est. No. of Extreme Poor /a	Inequality /b
<i>Urban</i>	13%	.04	593,805	0.47
<i>Rural</i>	53%	.20	4,921,890	0.43
<i>Central</i>	30.5	.10	465,356	0.43
<i>Copperbelt</i>	18.3	.05	358,497	0.46
<i>Eastern</i>	55.1	.20	1,002,596	0.41
<i>Luapula</i>	61.8	.23	622,391	0.40
<i>Lusaka</i>	13.8	.04	252,885	0.51
<i>Northern</i>	50.5	.19	982,080	0.43
<i>Northwestern</i>	48.7	.20	325,466	0.62
<i>Southern</i>	42.0	.16	760,111	0.47
<i>Western</i>	56.0	.22	564,480	0.47

Sources: a/ World Bank (2012a) using data from the 2010 LCMS.

b/ Consumption Gini based on 2010 LCMS data (CSO, 2011a, Table 12.5, p.202)

86. In general, a household's geographic location will affect its assets (for example, land scarcity, the prevalence of livestock disease, or education levels) as well as the returns to those assets (through transport costs, input and output prices, market opportunities, access to health services, and rainfall and other agro-ecological factors). *A priori* it is clear that all of these factors are at play in Zambia, but the empirical evidence on geographic inequality in poverty is very mixed. For example:

- A decomposition of the Gini coefficient by the World Bank using 2010 LCMS data showed that only 18 percent is explained by between-province inequality that and almost 82 percent explained by *within*-province variation.³⁴

- However, recent analysis done by UNICEF made the case that the *poverty gap* is much greater in districts with a high poverty headcount ratio (meaning that people

³⁴ World Bank (2012a).

in the very poorest districts are living much further below the poverty line than elsewhere in the country).³⁵ This means that there are concentrated pockets of deep poverty in Zambia. The same study constructed indices showing that a range of poverty-related deprivations (such as health status) are significantly worse in particularly badly off districts.

- In looking at the variation in per capita household income using the Post-Harvest Surveys (PHS) and Supplemental Survey data on crop production and food consumption, the Food Security Research Project estimated the following decomposition of variation in per capita household income:³⁶ between provinces 1.3 percent, between districts 3.5 percent, and between villages 8.9 percent. This means that 86 percent of the variation can be attributed to differences between households at the village level.
- Finally, work by the International Food Policy Research Institute (IFPRI) using small-area estimation techniques and using data from 2006 LCMS and the 2000 Census³⁷ showed that the provincial and district-wide poverty rates mask dramatic differences in poverty between constituencies within districts and, at the lowest level, between wards within the same constituency. The study found 2006 poverty headcount rates ranging from 8 percent to 68 percent in urban areas and from 41 percent to 92 percent within the Northern district.

87. There is no doubt that there are areas of deep poverty in Zambia, but on balance these findings highlight the limitations of conceiving of poverty as a geographical phenomenon, even when the geographic unit involved is quite small, or of pursuing area-based solutions to poverty. The bottom line is that many of the poorest households are

³⁵ UNICEF (undated). See in particular the plotting of the relationship between poverty headcount and poverty gap by district on p.9.

³⁶ The percentage of total variation in household income per adult equivalent.

³⁷ Simler (2007).

neighbors of well-off households. At the same time, analysis done by the DfID, UNICEF, and the Central Statistical Office using multi-dimensional aspects of poverty to target the SCTS identified about 14 districts that were notably worse off than others. Nonetheless, targeting only those 14 districts would have left out a significant proportion of the extreme poor. The implications appear to be that geographic targeting can make sense but it needs to be focused at a low level of disaggregation, and even then is likely to result in transfers going to a substantial number of the non-poor.

88. Before deciding how to target transfer schemes in Zambia in the future, the government might be advised to commission an updated study of the geographical distribution of extreme poverty using the 2010 Census and LCMS data along the lines of the earlier small-area estimations study. This would make it clear whether geographical targeting will be an effective way of reaching the poorest (and how many it will miss out) and which areas should be targeted.

2.8 Livelihoods and Employment

89. The poor in Zambia are overwhelmingly engaged in agriculture as self-employed workers on their own farms to grow enough for their family to eat and to eke out whatever income they can from selling any surplus. Throughout the economy, there is heavy dependence on own-production of food and on informal sector incomes. Only 9 percent of the working-age population (and 15 percent of active labor force) is engaged in the formal sector.

90. Deep poverty is concentrated overwhelmingly among small farmers (4.6 million extreme poor or 83 percent of the total) and, to a lesser extent, among urban slum dwellers (0.55 million or 10 percent of the extreme poor).³⁸

³⁸ Author's calculations based on 2010 LCMS data.

Table 10: Decomposition of the Active Labor Force (2010)

	Rural	Urban	Total
Agriculture Informal Sector	52.3 %	2.9%	55.2%
Non-agricultural Informal Sector	5.5%	11.1%	12.7%
Formal Sector	5.2%	10.0%	15.1%
Unemployed	3.3%	9.9%	13.1%
Total	62.5%	37.5%	100%

Source: Author's calculations based on 2010 LCMS data (CSO, 2011a, Tables 8.1, 8.11, and 8.12).

Note: Shares are the percentage of the total active labor force aged 12 or over. Approximately 5.5 million people (38 percent of those aged 12 or over) are inactive, mostly as students.

The Rural Economy

91. Table 11 shows the estimated composition of the income of rural households from all sources. It highlights the overwhelming reliance on own production of food and the lack of diversity of their income sources.

Table 11: Composition of Rural Incomes

Income Source	Average	Poorest 20%	Richest 20%
Consumption of Own Production	55%	57%	52%
Crop Sales & Other Farm	6%	7%	5%
Other Farm Income, Livestock etc.	4%	3%	5%
Non-farm Business	10%	11%	11%
Other Income	11%	13%	9%
Salary Income	6%	3%	11%
Remittances	6%	7%	5%

Sources: MCA Zambia (2010), Tables 3.2 and 3.3

92. Note that the data in Table 11 are somewhat dated. Although there is no more recent data source that gives the same degree of detail by poverty level, a number of surveys have shown that the income sources of rural households are becoming increasingly diversified. Households' own production of food crops is still the most important source of consumption, although, using rural panel survey data, one study³⁹ has shown that off-farm

³⁹ Crop Forecast and Supplemental Surveys, as cited in Kutuya et al (2011)

sources now account for over half of household income.⁴⁰ The recent Vulnerability and Needs Assessment⁴¹ also shows that, while crop production still accounts for 53 percent of incomes, rural households are increasingly engaging in multiple activities, including petty trading and small off-farm business activities. This diversification is taking place in part because of better market links and integration into the cash economy, although it is surprising that it has not resulted in any significant drop in rural poverty.

93. Nevertheless, it is important to recognize that most rural households have only very weak links with the cash economy. Among the bottom landholding quintile, for example, only 8 percent of gross farm income is accounted for by the sale of crops, which generate the equivalent of only US\$24 per year per household. Even among the largest landholding group, sales of cash crops only account on average for 16 percent of farm income.⁴² One implication is that rural households place a very high premium on having access to cash, so the design of any safety net program that provides a cash transfer needs to be carefully considered. Because nearly everyone in rural villages would like to receive more cash, there have to be very compelling and broadly accepted reasons why some households are chosen to receive the transfer and not others. The other implication is that incentives need to be carefully considered so that, for example, public works programs do not attract farmers away from potentially higher-return activities (such as land preparation and weeding at critical times) just because of the premium that individuals attach to receiving cash.

The Urban Economy

94. According to the 2008 Labor Force Survey (LFS), 74 percent of the urban workforce in Zambia is engaged in the informal sector in a mix of activities that changes with

⁴⁰ Note that the 2010 LCMS data suggest that only about a quarter of rural consumption in 2010 consisted of own-production of food (CSO, 2011a, Table 11.7). This includes non-agricultural rural households that include teachers, policemen, and civil servants. Nonetheless the proportion seems low compared with those derived from other data sources.

⁴¹ ZVAC (2011) p.32 of draft.

⁴² Sitko et al (2011) p.3.

opportunity and the seasons but mostly involves unskilled labor or petty trading. In all urban areas, this mix includes seasonal farming on undeveloped urban or peri-urban land.⁴³ Those who work in the formal sector tend to be employed in low-paying jobs such as shop assistants, security guards, or domestic helpers, jobs which pay no more than K250, 000-500,000 per month.

Table 12: Composition of Urban Incomes

Income Source	Average	Poorest 20%	Richest 20%
Non-farm Business	24%	25%	19%
Other Income	15%	20%	13%
Wage/Salary Income	50%	38%	60%
Remittances	6%	8%	5%
Consumption of Own Production	5%	9%	3%

Source: MCA Zambia (2010), Tables 3.2 and 3.3

95. While poverty rates are much lower in urban than in rural areas, urban areas tend to have a greater concentration of poor people. This is not just because of the higher population density in urban areas but also because the lower probability of urban dwellers being poor is offset by their large numbers. While most transfer programs aimed at improving the lot of the extreme poor will need to be focused in rural areas, for some programs with limited capacity, it may be cost-effective to concentrate some resources in urban areas.

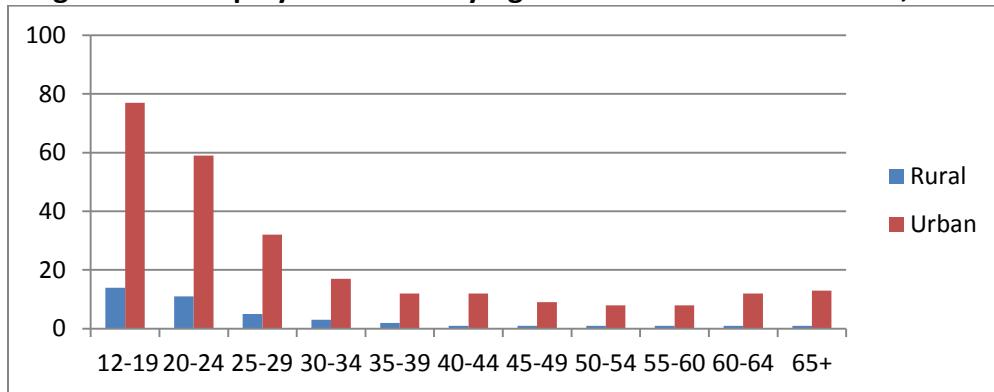
Unemployment and Under-employment

96. Estimates of *unemployment* vary from 8 percent (in the 2010 LCMS) to 13 percent (in the 2008 LFS), but all agree that it is overwhelmingly concentrated in urban areas and among the young. Some of this unemployment is transitional, with young men remaining unemployed after leaving school but then taking on work as they move into their later 20s and marry. Based on the experience in similar economies, some of these young men probably come from families that can afford to support them when they finish school. The

⁴³ Fallavier et al (2005).

relatively low poverty levels among the unemployed tend to support this hypothesis of quasi-voluntary unemployment, at least among some segment of the unemployed. The question is whether it will remain transitional or will become more chronic and of longer duration as a greater proportion of children pass through school and as the population gradually becomes more urban. At the moment, while youth unemployment is a legitimate political concern, looking at it from a poverty point of view, it does not seem to be a major factor in extreme poverty (which is overwhelmingly rural). Therefore, while it should certainly be addressed with other instruments, it should not be a major focus of poverty-reducing safety nets. An exception might be the use of labor-intensive maintenance works to employ the urban poor on a large scale, as discussed in Chapter 3.

Figure 4: Unemployment Rates by Age in Rural and Urban Zambia, 2010



Source: Author's calculations based on 2010 LCMS data

97. The concept of open unemployment is not very meaningful in a rural agrarian economy where nearly everyone works sporadically on their household's land and at informal income-earning activities. However the degree of *underemployment* is extremely high. The rural self-employed in agriculture (who make up the vast majority of the poor) work only an average of 28 hours per week,⁴⁴ and even this is extremely seasonal, with far fewer hours being worked during the five-month agricultural slack season.⁴⁵ The implication is that there is an abundance of unused labor power during the slack season, and serious

⁴⁴ CSO (2010b) Table 8.9, p.75

⁴⁵ See UNICEF (2008 b) and section 2.11 below for a discussion of seasonality.

consideration needs to be given to using employment-based safety net programs that can put this labor to productive uses during these periods.

2.9 Agriculture and Food Security

98. Maize is the main food staple and dominates agricultural production. Almost all rural households (91 percent) are agricultural, and 83 percent of them grow maize. Growing of other crops is limited, except for cassava (a more drought-resistant source of protein), and groundnuts. Only a few percent of smallholders grow other food crops (millet, sorghum, and rice),⁴⁶ and almost none of this output is sold.⁴⁷ Although there has been a very large increase in maize output in past three years, this expansion has not translated into more dramatic improvements in food intake and poverty reduction. This is because the majority of the increase in output has benefitted larger farmers, who are not among the poor.⁴⁸

Land Ownership and Poverty

99. Because Zambia is large and sparsely populated, land scarcity is not as an acute a problem as it is in other subsistence agricultural economies (Annex 1). Nonetheless the average amount of land cultivated per capita has declined by half since the 1960s due to the sub-division of family farming land among many offspring. As a result, an increasing number of households are cultivating holdings that are too small to support them. Many of these households are still classified primarily as farmers, but in reality the majority of their income has to be generated from off-farm sources, including by working on the farms of others. The average daily wage for such work is currently only about K6,000 (US\$1.20), so they are likely

⁴⁶ CSO (2011a) Tables 9.4. The exceptions are sweet potatoes and groundnuts grown by 19 percent and 32 percent of households.

⁴⁷ Sitko et al (2011), p.36

⁴⁸ For example, Jayne et al (2011) calculate that 70 percent of the increase by 2011 was accounted for by farms of greater than 2 hectares, which account for only about a quarter of farming households in Zambia (Table 1, p.2).

to be extremely poor. Therefore, targeting safety net support to the effectively landless may be a useful way to reach the poor.

Food Security

100. The extent to which people do not have enough to eat is a very good measure of the need for safety net transfers. Unfortunately, there are no definitive recent estimates of the proportion of the population that is chronically short of food in Zambia. If the LCMS has measured consumption accurately and if the food poverty line is a reasonable measure of the minimum basket of required calories,⁴⁹ then about 39 percent of the population did not have enough to eat in 2010. Estimates of food insecurity based on the In-depth Vulnerability and Needs Assessments vary widely from year to year depending on weather and crop conditions.

101. Food consumption patterns in Zambia are generally characterized by few and monotonous daily meals and little dietary diversity. A good proxy indicator of food insecurity is the high levels of stunting for children (discussed in the next section). According to Food and Agricultural Organization's Food Balance sheet, nearly half (45 percent) of the rural population of Zambia has a daily caloric intake of less than 1,750⁵⁰ compared to an average daily requirement of 2,750 for men and 2,600 for women. The FAO's food balance sheet also indicates that on average only 2 percent of calories consumed by Zambians are from pulses, vegetables, and nuts, highlighting the need to increase their dietary diversity.⁵¹

102. The share of income spent on food is another good indicator of food insecurity. In Zambia today, this proportion is about 65 percent among the rural population but only

⁴⁹ See Annex 1 for the food basket used to define the poverty line in Zambia.

⁵⁰ Average for all age groups, as cited in Sitko et al (2011) p.11. The reliability of these estimates is not known.

⁵¹ While there is no doubt that there is an excessive dependence on maize consumption, urban diets appear to be diversifying. See for example food consumption shares from the Urban Consumption Survey 2007/08 as cited in Sitko et al (2011) p.41.

about 39 percent among urban households. The rural level is comparable with other very low-income economies such as Tanzania, Malawi, and Ethiopia.

103. Access to markets is closely related to food security. In general the more remote the areas where a family lives, the more it is vulnerable to food insecurity. One analysis showed that households in areas located more than 6 kilometers from a tarred road were nearly 90 percent food-insecure compared to only 21 percent in provincial towns⁵² and that nutritional differentials showed a similar pattern.

2.10 Nutrition

104. In Zambia, 46.7 percent of children aged 3 to 59 months old were suffering from chronic under-nutrition and were stunted (had low height-for-age) in 2010, based on the latest 2010 LCMS (Figure 5). Almost 15 percent of children were underweight (had low weight in relation to their age) and 6 percent were wasted (had low weight-for-height).⁵³ Stunting is a condition reflecting the cumulative effect of long-term under-nutrition and poor health, while wasting reflects a recent and severe process that has led to a substantial weight loss, usually associated with starvation and/or disease. Zambia's stunting rate is well above the average for Sub-Saharan Africa (42 percent) and is far removed from the MDG target of 23 percent.

105. Chronic malnutrition is highest for children living in poor households, in rural areas, or where the household head has not completed primary education (Figure 5). The incidence of stunting among children in extremely poor households is almost 30 percent

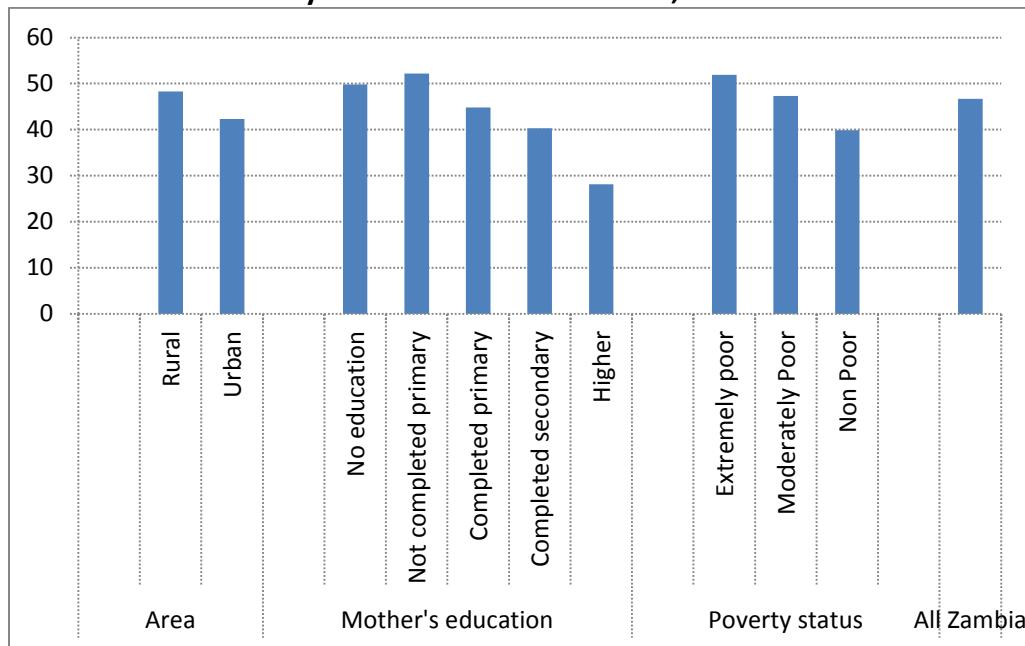
⁵² As cited in UNICEF (2008 b). Note however that both of these results could be the result of the correlation between remoteness and poverty rather than the access to food markets. The poorest tend to live in remote areas anyway, while those living in provincial towns tend to have higher incomes and greater purchasing power (for example they include teachers, civil servants, and traders).

⁵³ The rates for stunting, underweight, and wasting are comparable to those reported in the 2007 Zambia Demographic and Health Survey (CSO, 2011c) - 45.4, 14.65, and 5.2 percent respectively.

higher than for the non-poor. The same pattern can be observed for underweight and wasting.

106. However, malnutrition is not just a problem of poverty. As Figure 5 shows, almost 40 percent of non-poor children are also stunted. The fact that malnutrition is only weakly associated with income levels means that targeting on the basis of poverty will not solve the malnutrition problem. Safety net programs that provide transfers in cash or kind are not going to be sufficient and will need to be combined with the promotion of optimal feeding and caring practices, hygiene and safe water, the provision of micronutrients to young children and their mothers, and appropriate management of infectious diseases.

Figure 5: Incidence of Stunting among Children aged 3-59 months by Household Characteristics, 2010



Source: Constructed from CSO (2011a) based on 2010 LCMS

107. In Zambia, child under-nutrition is caused by two main factors: (i) inadequate dietary intake resulting from suboptimal maternal and infant feeding practices and (ii) the heavy burden of malaria, diarrheal diseases, and acute respiratory infections. The broad underlying cause of inadequate dietary intake is the fact that insufficient income limits

household consumption. According to the latest 2010 LCMS, almost 39 percent of households are not consuming a food basket that provides the minimum caloric intake. Among those in the poorest quintile, only 31 percent of individuals eat three or more meals per day on average, almost one-quarter had not consumed any meat in the month prior to the survey, and nearly two-thirds had only consumed meat one to five times during the previous month.⁵⁴ Furthermore, 43 percent of all newborns do not receive any breast milk within one hour of birth, and 39 percent of infants under the age of 6 months are not exclusively breastfed.⁵⁵ Food is of course important, but a lot of malnutrition is caused by a combination of an undiversified diet that is low in protein and nutrients combined with bad sanitation and disease, leading to diarrhea and parasites that prevent the absorption of nutrients, especially in young children.

108. Although chronic malnutrition rates have decreased since 2006, they are still close to the high levels of the early 1990s. For Zambia to reach the MDG goal of halving the number of underweight children by 2015, the government would have to focus its efforts on the right interventions and the right age group. The window of opportunity for improving nutrition is small – from before pregnancy to the end of the child's first two years of life. There is a consensus that any damage to physical growth, brain development, and human capital formation that occurs during this period is extensive and largely irreversible. Therefore, nutrition interventions must focus on this window of opportunity by targeting children in this age group. Any investments made after this critical period are much less likely to improve the nutritional status of Zambia's children.

109. Fortunately, the Government of Zambia has recognized the urgency of the nutrition situation and has made a strong political commitment to addressing the issue. It has prepared a multi-sector five-year National Food and Nutrition Strategic Plan for 2011-2015 with a clear set of actions to reduce stunting. The DfID and UNICEF provided the

⁵⁴ World Bank (2012a)

⁵⁵ UNICEF (2009)

government with the technical assistance needed to develop and cost a “1,000-day nutrition program” that targets pregnant and lactating women and children up to 24 months of age. When it is completed, the government will use it as an advocacy tool to raise funds to finance its implementation.

2.11 Movements In and Out of Poverty – Shocks and Seasonality

110. Knowing whether people are permanently stuck in poverty or are moving in and out of it is critical for designing safety nets. Policymakers need to know, for example, whether programs should cater to the same pool of beneficiaries continuously or to a shifting group of beneficiaries that changes over time, and thus must be constantly updated.

111. The evidence in Zambia is incomplete⁵⁶ but suggests that most poor households remain permanently poor. For example, a recent study found that almost 90 percent of agricultural households who were poor in a 2001 sample were still poor in 2008 and that only about 10 percent of all households had changed their status (becoming either better-off or poorer) at some stage during the intervening period.⁵⁷

112. Using the Post-Harvest and Supplemental surveys done by the FSRP to track the welfare and economic activities of rural households over time, the same study showed that about one-quarter of rural farming families moved in and out of poverty⁵⁸ at some point over an eight-year period, with the vast majority (91 percent) either living in poverty in two out of the three periods or being stuck consistently in poverty (Table 13).

⁵⁶ There is for example no national panel survey, but attempts have been made to estimate movements on the basis of successive Post Harvest Surveys (Chapato et al, 2011), and other data sources (UNECA, 2005)

⁵⁷ Chapato et al (2011)

⁵⁸ Based on a US\$1 per day poverty line.

Table 13: Movement In and Out of Poverty over Time in Rural Agricultural Households

	Share of HHs	Average HH Income among Bottom Decile of Group
Consistently Poor	71.5%	88,680
Poor 1 Year Out of 3	6.1%	213,055
Poor 2 Years Out of 3	19.2%	591,093
Consistently Non-Poor	3.1%	2,201,965

Source: Constructed from Chapato et al, 2011, Tables 3 and 4 based on the Post-Harvest Survey 1999/2000 and Supplemental Surveys of 2001, 2004, and 2008.

113. Households that are consistently poor (as opposed to moving in and out of poverty) have far lower incomes and asset endowments than average but were not particularly affected by shocks (see discussion below). This suggests, once again, that the problem of extreme poverty in Zambia is one of chronic impoverishment and extremely low absolute incomes rather than of fluctuations in the levels of income or of the impact of shocks.

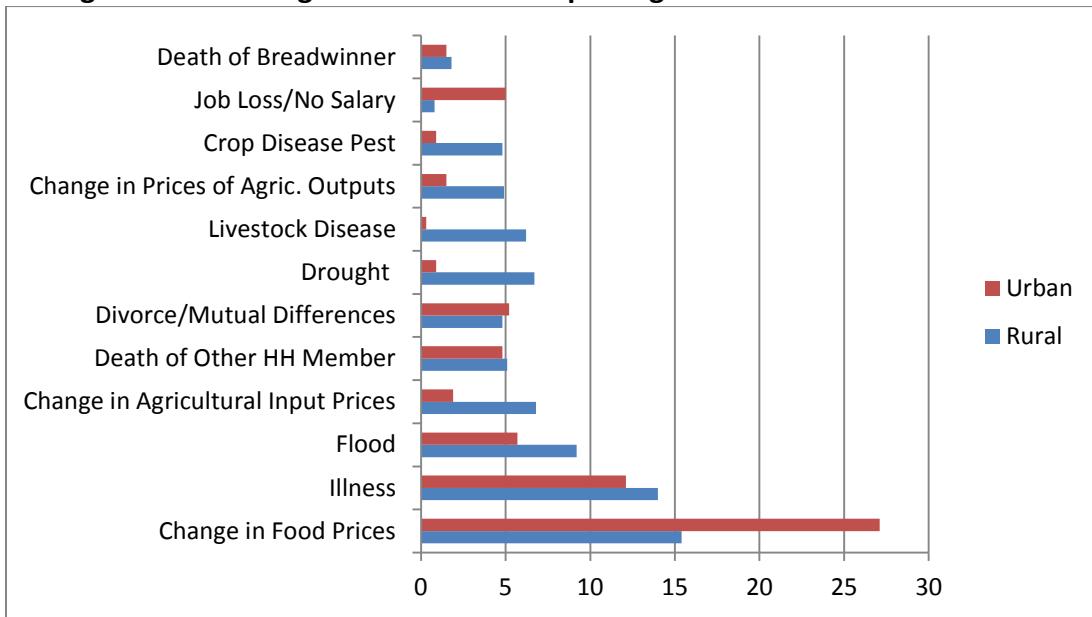
114. Qualitative studies suggest that the way out of poverty is through diversification, either through the commercialization of agriculture or engaging in off-farm activities – and the mobility of households.⁵⁹ These studies also show the importance of asset accumulation and education in helping households to take up these opportunities. The implication is that productive safety net programs should use transfers to focus on both raising agricultural productivity and equipping the poor to take advantage of off-farm income opportunities.

115. The *shocks* faced by poor households are common to those experienced in other southern African economies, consisting mostly of agriculture-related shocks (low rainfall and poor harvests, and large changes in prices for both the crops that they sell and the food they must buy). For a small but significant share of households, shocks also include the loss of a breadwinner and – especially for women – widowhood⁶⁰ and, in urban areas, the loss of employment.

⁵⁹ Banda et al (2011).

⁶⁰ Chapato et al (2011), p.21.

Figure 6: Percentage of Households Reporting a Shock in the Previous Year



Source: Based on CSO (2011a) using 2010 LCMS, Table 13.7, p.215

116. Zambia faces two major types of covariate shock: (i) droughts and (ii) cyclical movements in copper prices. Copper prices mainly affect the ability of the government to finance programs as well as employment in the modern sector for which social insurance is probably the best intervention. Zambia has experienced four good agricultural years, but another drought is inevitable at some stage. However, there is no comprehensive mechanism in place to mitigate the consumption impact of drought. As discussed in Chapter 6, if the government were to move towards a large-scale national safety net system, it would be advisable to design it to be geared up quickly in response to future droughts.

117. Analysis using the PHS and Supplemental Surveys⁶¹ has shown that the probability of moving out of poverty is significantly related to landholdings, dependency ratios, and educational endowments but is not particularly strongly associated with events such as illness or death. However, the limited analysis available⁶² suggests that poverty is more

⁶¹ Chapato et al (2011).

⁶² See for example, Banda et al (2011).

related to low asset endowments and to practicing low-return activities than to shocks.⁶³ The implication of this is that, with some notable exceptions, transfers should focus more on supplementing the incomes of those who are consistently poor than on short-term responses to shocks.⁶⁴ The fact the people remain chronically poor also has important implications for targeting mechanisms because the reassessment of beneficiaries should not have to be done as often as in countries where poverty is more transient.

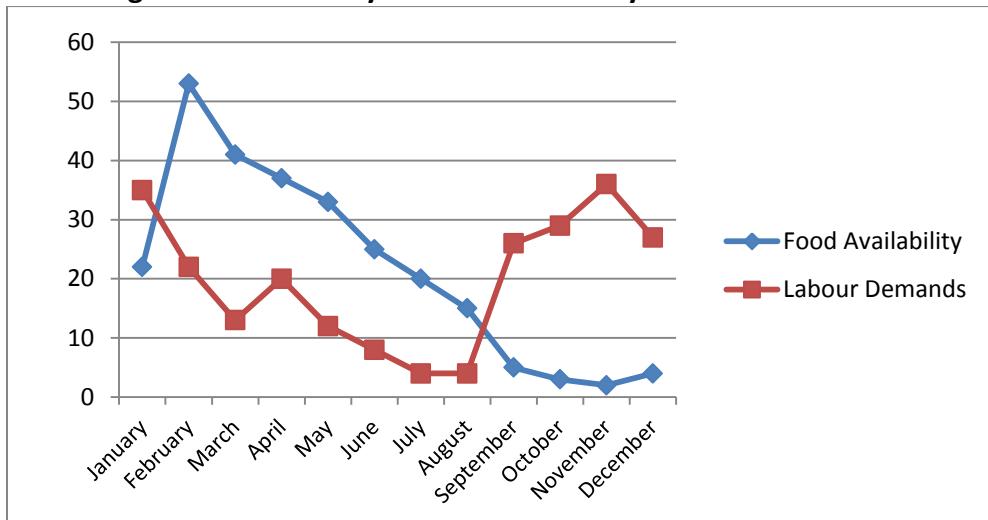
Seasonality

118. In common with other countries in the region, there is a strong *seasonal* aspect to poverty on Zambia. Poor farming households tend to run out of food six to seven months after harvest and lack the resources to buy food when prices are highest, resulting in a four-month lean season between September and January each year. Therefore, a very large share of the poor in Zambia (perhaps the majority) is non-poor in a food consumption sense for about two-thirds of every year but is extremely poor for one-third of it. Addressing this predictable annual impoverishment seems an obvious role for safety net programs.

⁶³ However, the less well-endowed are clearly also more vulnerable to shocks and less able to recover from them.

⁶⁴ The exceptions are related to categorical poverty (orphanhood and widowhood, which will be discussed later) and to droughts and floods, which affect large shares of the population; and seasonal food poverty, which is predictable, and therefore not really a shock.

Figure 7: Seasonality in Food Availability and Labor Demand



Source: Constructed from UNICEF (2008 b), Figure 4 p.6.

Notes: Based on perceived scores. Localized study in Kafue river basin. While specific harvest months differ by area, the same pattern of seasonality obtains throughout most of Zambia.

119. This annual period of food shortage also coincides with a surge in agricultural labor demand because of the needs associated with the cropping and harvest cycle and with a sharp increase in the burden of disease because of the onset of the malaria season (see Figure 7). Maize prices also peak at this time due to the lack of stocks in the market. The degree of seasonal variation in prices is greater in more isolated areas that are less integrated with markets and are lower in the urban and more commercialized areas of the country. One implication of the extreme seasonal shortage is that, in some cases, safety net programs may need to provide transfers in the form of food rather than cash or vouchers because food will not be available locally at any price.

2.12 Non-food Consumption, Health, and Education

120. *Consumption.* As in all subsistence economies, in Zambia the majority of the consumption of rural households is accounted for by food (65 percent). In urban areas, the pattern is more typical of middle-income countries, with housing also accounting for a significant share. Education represents a measurable and growing part of household

expenditure, but health care does not represent a significant share of spending in either rural or urban areas. This is in part because of the abolition of the health user fees for all primary health care services.

Table 14: Composition of Consumption, 2010 (Percentage shares)

	Rural	Urban
<i>Food</i>	64.6	39.1
<i>Non-food</i>	35.4	60.9
Housing	16.0	31.5
Clothing	3.2	2.9
Education	4.5	7.9
Medical Care	0.3	0.5
Transport	3.5	7.2
Remittances/Transfers	0.5	0.7
Personal Services	6.2	8.7
Alcohol, Tobacco	1.3	1.5

Source: CSO (2011a) Table 11.8 p.168 using 2010 LCMS data.

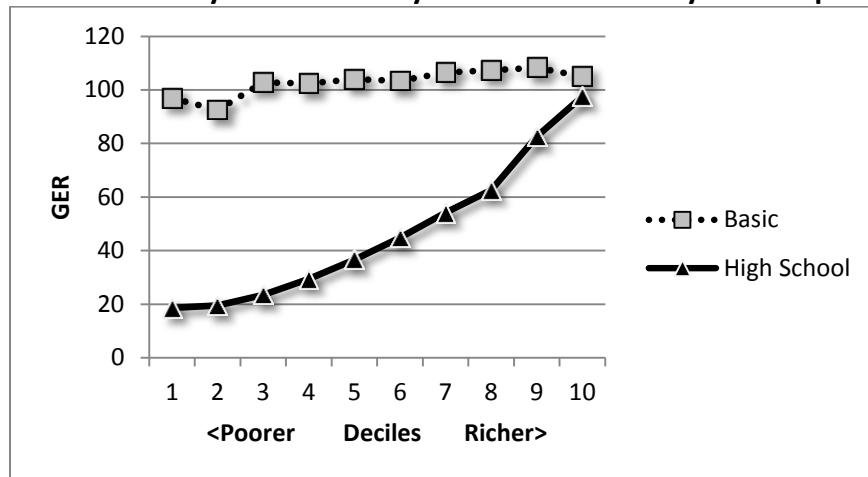
121. *Education.* As in most of the region, following the introduction of free primary education, enrollment rates are high at the primary level (102 percent gross enrollment rate⁶⁵) and then drop off precipitously at the secondary level. Primary enrollment is fairly equitably spread across income groups, but at the secondary and tertiary levels, enrollment is dominated by children from better-off families. Figure 8 shows enrollment rates for primary and secondary education by the poverty level of the household. Despite some progress, education *levels* among the poor remain low, partly because of the historically low levels of coverage and partly because they tend to drop out younger and live in more remote areas where the quality of education is lower.

122. Children from the poorest households tend to start primary school later (at about 8½ years old as opposed to an average of 7½), and to be in a lower grade for their age (by about 1.5 years) than children from well-off households. With the advent of free primary education enrollments have increased dramatically and a very large share of children from all income groups are now enrolled – although we do not know regularly they attend. There

⁶⁵ GRZ (2011).

are still ancillary costs associated with going to primary school, such as uniforms and supplies, which reportedly present a barrier to some of the poorest households, but there is no hard evidence on how much of an impediment they are. Almost all surveys of beneficiaries of cash transfer programs (Chapter 3) report using some of the transfer to cover schooling costs.

Figure 8: Gross Primary and Secondary Enrollment Rates by Consumption Decile



Source: World Bank computations based on 2010 LCMS data

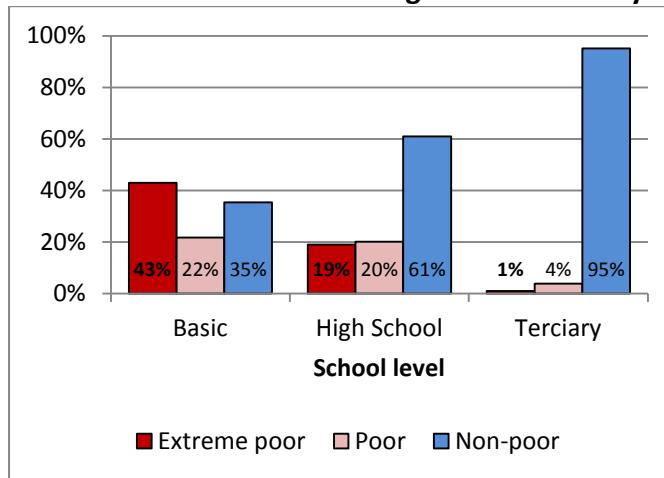
123. The picture changes dramatically at the secondary school level, with gross enrollment among the poorest being only 7 percent compared to 51 percent from the richest households. The barriers consist not just of fees, but also the fact that high schools tend to be concentrated in urban areas and towns, whereas the poorest tend to live in more remote rural areas. Also, there is only enough capacity for about one-third of secondary-aged children in the country so schools have to be selective. In addition, the enrollment of girls drops off significantly at the age of 16.⁶⁶ Safety net measures to help promising children from poorer households go to secondary school would be a good investment in both human capital and reducing longer-term poverty. Generalized transfers to encourage secondary education would not make sense so long as the capacity is insufficient to accept

⁶⁶ Attendance rates are higher for girls up to the age of 15 but are about a third lower than those for boys from the age of 16 onward.

most children who would want to go, so bursaries or transfers targeted by poverty and academic ability would appear to be the most useful intervention for the time being.

124. Figure 9 below shows the proportion of students at each education level who come from extremely poor, poor, and non-poor households. It shows that transfers at the primary level such as universal school meals would be not much different from random targeting, whereas transfers linked to university enrollment (such as the generalized bursary system discussed in the next chapter) would benefit the non-poor in 95 percent of cases, unless they were means-tested.

Figure 9: Distribution of Students Attending School Levels by Poverty Status



Source: World Bank computations based on 2010 LCMS data

125. *Health.* Zambia has recorded considerable gains in health outcomes from 1990. The under-5 mortality rate dropped by 38 percent between 1992 and 2007, and maternal mortality decreased by 31 percent between 1996 and 2007. Despite these achievements, health indicators are still poor, with an under-5 mortality rate of 119 per 1,000 live births, a maternal mortality rate of 470 per 100,000 live births, and an HIV prevalence rate of 14.3 percent.⁶⁷ Under-nutrition is a major cause of both under-5 and maternal mortality. About

⁶⁷ 2007 Demographic and Health Survey for Zambia (CSO, 2011c).

one-third of under-5 mortality and as much as one-quarter of maternal mortality is attributable to under-nutrition.⁶⁸

126. In an effort to increase access to health care and eliminate disparities between urban and rural areas, the Government of Zambia abolished user fees for all primary health care services in both rural and urban areas. A study that evaluated the impact of this move⁶⁹ found that the number of outpatient visits at the primary care level had increased since the policy change.

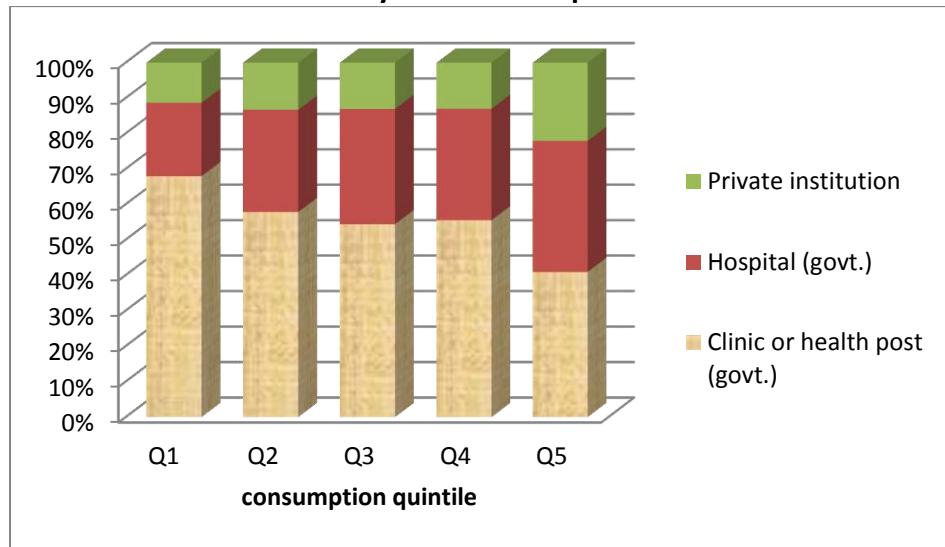
127. The latest LCMS shows that in 2010 a large share of both the poor and the non-poor reported having consulted a health care provider when they were ill. Of those reporting illness in the two weeks preceding the survey, about 72 percent visited a public clinic or health post, a public hospital, or a private provider with no significant difference across income groups.

128. There is a marked difference between incomes groups in the type of health care that they seek. The bottom 20 percent are more likely to use a government clinic or health post, while the richest 20 percent are twice as likely to use hospital care. Similarly, people in the richest quintile are twice as likely to use a private provider as those in the other quintiles (Figure 10).

⁶⁸ World Bank (2011).

⁶⁹ Carasso et al (2010)

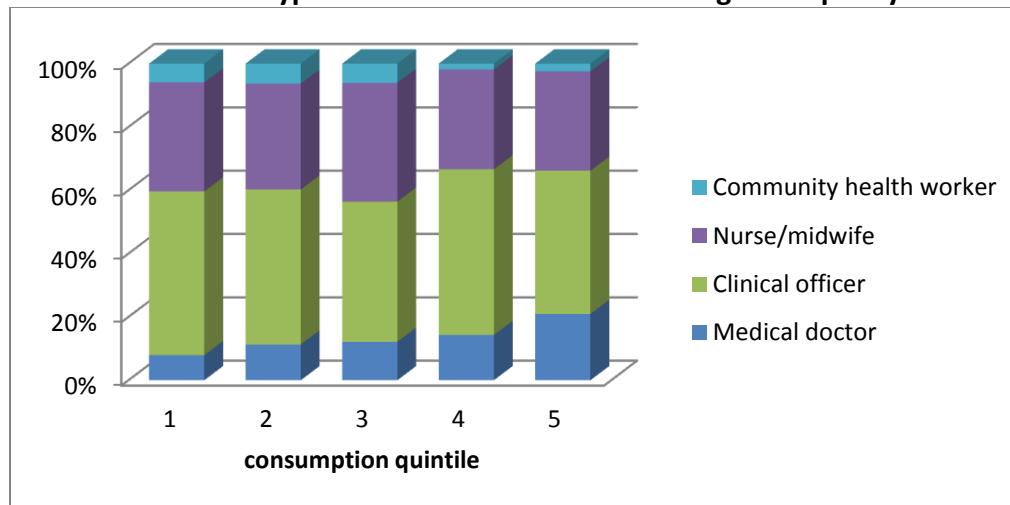
Figure 10: Distribution of Type of Provider Consulted When Ill by Income Groups



Source: Based on CSO (2011a) using 2010 LCMS

129. The same marked difference between the poorest and richest quintiles can be seen in regard to the type of staff who attended them when ill. Very few of the extreme poor are likely to be seen by a doctor. Only 8 percent of people in the poorest quintile were attended by a doctor compared to 21 percent of the richest quintile (Figure 11). Most of the poor are attended by a clinical officer or nurse.

Figure 11: Distribution of Type of Health Care Staff Attending Ill People by Income Groups



Source: Based on CSO (2011a) using 2010 LCMS.

2.13 Poverty among Some Specific Groups

130. *People Living with HIV/AIDS.* Zambia has one of the highest incidences of HIV/AIDS in the world – 14.5 percent of the population aged 15 to 49 according to the 2007 Demographic and Health Survey (DHS) or around 850,000 people living with AIDS. While there are certainly people suffering from HIV/AIDS who need support, the disease does not in general disproportionately affect the poor. Its incidence is 8 percent among adults in the poorest wealth quintile and about 22 percent among those in the wealthiest two quintiles (Table 15).

Table 15: HIV/AIDS Prevalence by Wealth Quintile (2007)

Wealth Quintile	HIV Prevalence (%)
Poorest	7.8
2nd	9.6
3rd	12.1
4th	20.6
Wealthiest	17.8

Source: 2007 Demographic and Health Survey (CSO, 2011c).

131. It is difficult to assess the relationship between HIV/AIDS and consumption poverty. Clearly, the loss of household labor, particularly of the breadwinner, can impoverish a family. At the same time, AIDS is more prevalent among the non-poor. The poorest families tend to live in villages, be less mobile, and less socially interactive than the urban and middle-class populations. The fact that people living with AIDS tend to be less poor than average may also be because of support that they receive from extended family and community and because they are more likely to receive anti-retroviral treatment (and thus have higher survival rates). This does not mean that there are not some people suffering from HIV/AIDS who are in desperate situations and need safety net support. The issue from a targeting point of view is that they need to be identified on a case-by-case basis, and it is clear that providing transfers to all people who are HIV positive is not necessary strictly as a poverty reduction measure.

132. *Orphans and Vulnerable Children.* As of 2007, there were an estimated 1.1 million orphans in Zambia,⁷⁰ of whom about 225,000 had lost both parents. While these numbers represent a national tragedy and some orphans and vulnerable children (OVCs) live in extremely difficult conditions, the link with poverty is not straightforward.

Table 16: Orphanhood by Wealth Quintile

Wealth Quintile	Both Parents Dead	Either or Both Parents Dead
Poorest	2.4 %	11.4%
2 nd	1.9 %	11.7%
3 rd	3.0 %	13.5%
4 th	4.7 %	18.9%
Wealthiest	5.2 %	20.2%

Source: Constructed from 2007 Zambia Demographic and Health Survey, CSO (2011c), Tables 18.1 and 18.2

133. As Table 16 shows, the rate of orphanhood is higher in better-off families than among the poorest,⁷¹ and the available evidence does not suggest that OVCs⁷² are much worse off than children in other families on average. This is largely because there is such pervasive poverty among Zambia households in general, and poor families tend to have more children. For example, the DHS data show that 22 percent of OVCs are overweight as opposed to 19 percent of non-OVCs and that 47 percent of OVCs lack core basic needs (clothing and blankets) compared with a similar share (44 percent) of non-OVCs.⁷³ The implication of this is that orphanhood alone is not necessarily a good basis for identifying poor or very poor households.

⁷⁰ Estimates vary. This is based on 14.9 percent of children aged 18 and under according to the Zambia DHS of 2007 (CSO, 2011c). The STEPS/OVC triangulation study (Mukuntuba, 2011) cites a figure of 12.8 percent for 2009, while the 2010 LCMS (CSO, 2011a) implies a rate of 11.8 percent for those under the age of 15, and 14.6 percent for those under the age of 18. Note the proportion of orphans peaked in 2005 and since then has been declining somewhat over time, due largely to decreases in parental deaths in urban areas (Mukuntuba, 2011, Table 44, p.61).

⁷¹ For example 5.2 percent of children in the highest wealth quintile have lost both parents, compared with only 2.4 percent in the poorest quintile (CSO, 2011c, Table 18.1, p.308).

⁷² OVCs in this case are defined as children who have either been orphaned or are living in a household with one or more extremely ill adults (CSO, 2011c, Table 18.2).

⁷³ CSO (2011c), Tables 18.4 and 18.6.

134. The data in Table 16 suggest that orphanhood is not a good basis for targeting transfers. However, there are many programs that target support to households that contain an orphan. Table 17 shows preliminary estimates of poverty rates based on LCMS data specifically for orphans and households containing orphans. Consistent with the findings of the DHS, it shows that orphans (and the households that contain them) are on average *less* likely to be extremely poor than other households.⁷⁴

Table 17: Estimated Poverty Rates for Orphans and Households Containing Orphans

<i>Individual Extreme Poverty Rates</i>		<i>Household Extreme Poverty Rates, for HHs including at least one:</i>	
Single Orphans	38.8%	Single Orphan	36.6%
Double Orphans	36.3%	Double Orphan	34.6%
All Children	41.4%	All Households	39.3%

Source: World Bank calculations based on 2010 LCMS data

Note: Single and double orphans refer to children who have lost one and both parents respectively.

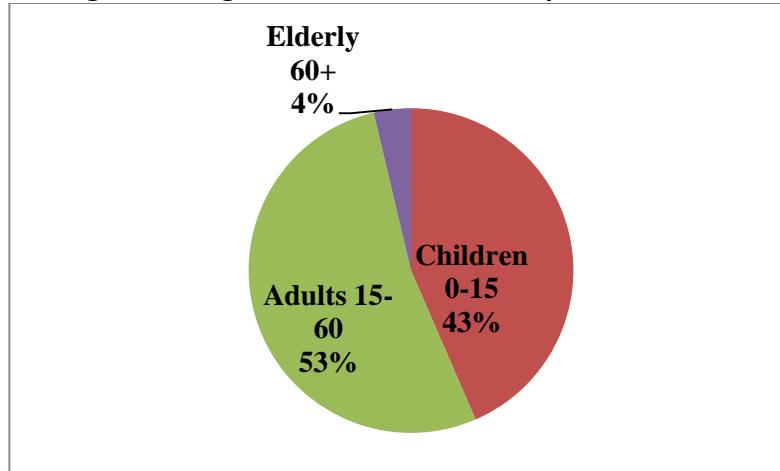
135. Based on these data, targeting households containing orphans would be worse than randomly distributing benefits among households as a means of reducing extreme poverty. Using the concept of “orphans and vulnerable children” (OVCs) is a more rational approach. The problem is in measuring the poverty and vulnerability level of orphan households. Nevertheless, over 1 million orphans is still a national tragedy and may have longer-term negative consequences, so helping OVCs to escape the intergenerational poverty trap is an important goal for productive safety nets. However in many cases the extended family is quite an effective at dealing with orphans. The trick is to design targeting systems that explicitly target the neediest among orphans, and the best way to do so would be to use some kind of community-based targeting.

136. *The Elderly.* There were an estimated 486,000 people over the age of 60 in Zambia in 2010 (according to the 2010 LCMS), representing only 3.7 percent of the population, and

⁷⁴ The apparently higher poverty rate among double orphans is counter-intuitive. The difference is small (less than 2 percentage points), and it is quite likely that, within the order of accuracy with which these estimates are made, there is no statistical significance to the difference.

315,000 over the age of 65 (2.4 percent). Poverty rates among the elderly are only slightly higher than the national average (42 percent extreme poverty headcount as opposed to 39 percent),⁷⁵ so there is no compelling evidence that the elderly are on average much worse off than the population as a whole.

Figure 12: Age Distribution of the Population, 2010



137. The analysis shows that the households headed by an elderly person are poorer (52 percent extreme poverty rate than average (LCMS), although there are also quite a lot of elderly-headed households among the wealthiest decile, and the pattern seems to vary considerably by region.⁷⁶ In general the elderly are spread across all income groups, making the use of age alone as a targeting mechanism (as for example in pensions) a not very effective way of getting transfers to the poor.⁷⁷

138. Table 18, for example, shows the proportion of the extreme poor who are elderly or who live in households with an elderly person in them. It implies that a pension provided to

⁷⁵ Estimated at 42.3 percent for individuals over 60, and 42.6 percent for individuals over 65 (World Bank calculations using 2010 LCMS data).

⁷⁶ Kimetrica (2008), pp. 39-40.

⁷⁷ Kimetrica (2008), Figure1, p.40.

everyone over the age of 65 – and indirectly benefitting everyone in their household – would still only reach 13 percent of the extreme poor in Zambia.

Table 18: Extreme Poverty among Households with Elderly Members

Households containing:	Extreme Poverty Headcount	Number of People Living in Such HHs	% of Extreme Poor Living in Such HHs
Elderly 60+	42%	997,953	19%
Elderly 65+	42%	689,217	13%
Elderly 70+	43%	459,754	9%
All Households	39%	5,158,000	100%

Source: World Bank calculations using 2010 LCMS data.

139. The fact that in Zambia households containing orphans, people with AIDS, or the elderly are no poorer than the national average (and in some cases less poor) is a common finding in many countries. One of the drivers of these results is that poverty is measured at the household level, whereas the specific vulnerabilities (such as orphanhood or old age) are experienced by individuals, meaning that these vulnerabilities are mediated by the attributes of the other family members.

140. *People with Disabilities.* There are no reliable sources of data on the number of people with disabilities in Zambia or on the severity of their disabilities. The World Health Organization (WHO) estimates that there are about 1 million people with disabilities in Zambia⁷⁸ or 8 percent of the population, but this tells us nothing about how significant their disabilities are or about how they affect their consumption levels. Part of the problem is that there are no standard measures of disability. The evaluation report of the Kaloma component of the SCTS⁷⁹ found that 16 percent of a sample population had some form of disability, of whom the largest share (6 percent) were partially sighted, 5 percent were lame, and 1.6 percent blind. (However, this was among the beneficiaries of a program explicitly aimed at the extreme poor and households affected by AIDS and orphanhood.)

⁷⁸ UNICEF (2008b) p.25.

⁷⁹ GTZ (2007).

141. There is no doubt that many people with disabilities are stuck in extreme poverty traps, but statistically the link between poverty and disability is not strong. Rough estimations using the 2010 LCMS data suggest that poverty rates are only about 3 percentage points higher among the disabled than among the population as a whole.⁸⁰ While some of the disabled are barely surviving, many either live in households that can support them or have sufficiently minor disabilities that they can lead productive lives. The challenge from a safety net perspective – as it is with the elderly and orphans – is to find a way to distinguish those disabled people who are living in destitution, and again this can probably only be done using some form of community targeting that relies on local people's knowledge of the circumstances of individual disabled people.

142. Finally it is worth noting the very large degree of overlap between the disabled and the category of elderly people discussed above. The Kaloma survey, for example, found an average rate of 15.6 percent disabled people among the sample as a whole but of 42 percent among those over the age of 65.

⁸⁰ Calculations by World Bank staff using the 2010 LCMS data show extreme poverty rates of 42 percent for disabled individuals compared to 39 percent for all Zambians.

CHAPTER III: Current Transfer and Safety Net Programs

143. In this chapter, we first give an overview of the expenditures on existing transfer and safety net programs, then go on to examine each program in turn. Finally, we assess their overall effectiveness by addressing four issues that are of potential interest to policymakers: (i) how wide their coverage of the poor is; (ii) whether the transfer they provide is adequate to make a difference to poverty levels; (ii) whether they represent a cost-effective way of transferring resources and reducing poverty; and (iv) whether they respond to the most critical aspects of poverty.

3.1 Overview of Transfer and Safety Net Spending

144. Table 19 below gives a rough overview of existing safety nets and transfer programs and what is currently being spent on transfer programs in Zambia (that is, any program that results in a direct transfer of in-kind resources or cash to households).

Table 19: Estimated Spending on Current Safety Net and Transfer Programs

Name	Risk/Aspect of Poverty	Target Group	Transfer type	Estimated expenditure, million\$	Number of Beneficiaries
Cash Transfers					
Social Cash Transfer Scheme ^{a/}	Consumption difficulties	Labor-constrained households + HIV/TB	cash	8.9	114,500
Pilot Old Age Pension ^{b/}	consumption difficulties	65+	cash	0.7	5,758
Tertiary Bursary Scheme ^{c/}	Low education levels	Tertiary students	tuition	71.0	Est. 51,000
OVC Bursary Scheme ^{d/}	Low education levels	Orphans/vulnerable	tuition	1.4	20,000
Feeding programs					
Home Grown School Feeding Program ^{e/}	Low school attendance/food consumption	Primary students	school meal	16 est.	850,000
Milk for Schools (Pilot) ^{f/}	Low school attendance	Students in grades 1-9	milk	n.a.	13,000
SPLASH Food security for vulnerable groups (Vouchers and Food; WFP) ^{g/}	Under-nutrition/increase in food prices/ food insecurity	HHs with members with ART/TB, undernourished	food +voucher	4.6	142,500
Public works					
PUSH (Periurban community self-help) ^{h/}	Urban poverty	Urban poor unemployed	cash	1.2	17,500
Productive /agriculture related transfers					
Food Security Pack ^{i/}	Consumption difficulties	Poor farmers with vulnerability characteristics	seeds fertilizers	3.1	76,300
Farmers' Input Support Program ^{j/}	Cushion effect of high price for fertilizers	Smallholder farmers	seeds fertilizers	130	4,000,000
Targeted Subsidies					
Maize Price Support Scheme (FRA) ^{k/}	Collapse of maize price	Maize producers	cash	360	2,300,000
Other					
Public Assistance (PWAS) ^{l/}	Death, loss of breadwinner/ sickness	HHs who lost breadwinner or suffer from sickness	In-kind, one-off	1.6	59,000
STEPS/OVC ^{m/}	Orphanhood /HIV/AIDS	Orphans, HIV/AIDS	In-kind, services	6.7	204,251

Notes: Most recent year; generally 2011 if available.

a/ SCTS – based on MCDMCH (2012); net of Katete pension beneficiaries.

b/ Old Age Pension – based on MCDMCH (2012)

c/ Bursary scheme (generalized)

d/ OVC Bursary Scheme

e/ Home Grown School Feeding Program –total cost for 850,000 in 2011 uncertain. Rough estimates based on WFP and Ministry of Education data.

f/ Milk for Schools – these are intended targets based on program manual document and the author's discussions with the WFP.

g/ SPLASH: Based on 52,000 households over 2.5 years as reported in the SPLASH final evaluation (WFP, 2011e), assuming 5 people per HH, report claims higher level of coverage, implying HH size of 7; Estimate of \$4.6 million p.a. based on Euro 4.6 million cited in EU agreement, spread over 18 months. Not operating after 2011; likely to be replaced with a similar vulnerable group feeding program. Estimated cost and coverage based on WFP review documents.

h/PUSH Not operating.

i/ Food Security Pack – planned beneficiaries and budget in 2010/11 (MCDMCH)

j/ Farmers' Input Support Program – based on World Bank (2010a) and data supplied by the Government of Zambia.

k/ FRA – based on estimated K 1.5 trillion cost to the government of FRA operations in 2010; 36 percent of smallholders who sell to FRA (Chapato et al, 2011); Note estimated cost in 2011/12 is K 2.2 trillion (US\$478 million) according to the press release by the Minister of Agriculture on November 9, 2011 (FRA, 2011).

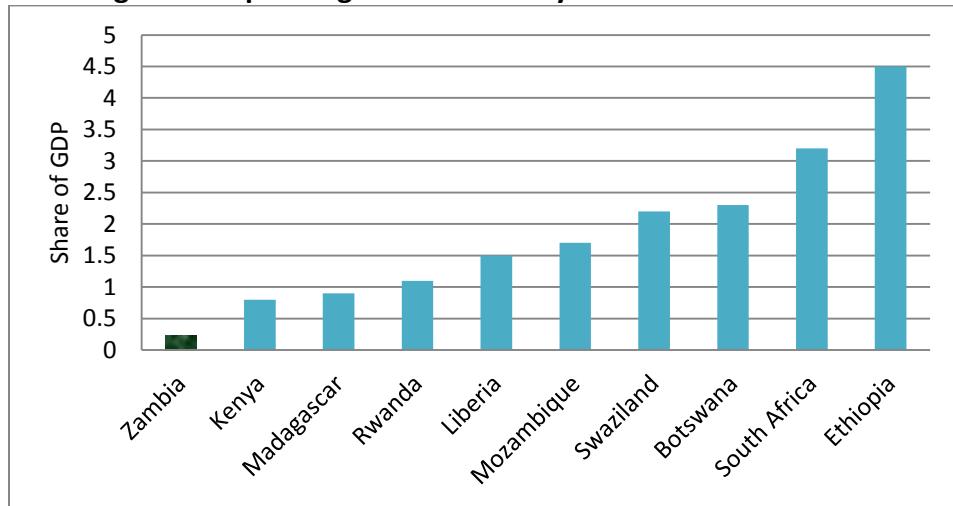
l/ PWAS – based on K 8.1 billion 2011 releases and 75,496 beneficiaries as reported by ministry. Varies widely from year to year depending on funding.

m/ STEPS/OVC – based on US\$20 million over three years; note not all STEPS/OVC expenditure is for individual assistance, much of it is for community support, HIV prevention etc.

145. Total spending on transfers of all kinds amounted to about K.2.5 trillion (US\$540 million) in 2011, but of this the vast majority is accounted for by the Farmers' Input Support Program and the Maize Price Support Scheme. The amount actually spent on programs that provide transfers explicitly to the poor is only about US\$50 million, and most of that is accounted for by donor spending on discrete aid-funded programs.⁸¹ This compares to spending on health of about US\$550 million (K.2.5 trillion, 2012 budget) and on education of about US\$1,000 million (K.4.85 trillion).⁸²

146. Spending on true safety nets for the poor represents only about 0.2 percent of GDP, which is very low compared to the averages in other countries in Africa, which range from about 0.5 percent to 3.5 percent.

Figure 13: Spending on Social Safety Nets as a Share of GDP



Source: Author's calculations for Zambia. For the other countries, World Bank (2013)

147. The implication is that the space should be there for increasing spending on transfers. While the FISP and FRA programs are not intended to be targeted to the poorest (they are justified primarily on the grounds that they promote productivity increases in agriculture and maize market stabilization), and spending on them is not included in Figure

⁸¹ About 60 percent of the total consists of donor spending on programs (based very roughly on spending on school feeding, the SCTS, SPLASH, and other WFP-supported food programs but excluding spending on STEPS /OVC).

⁸² 2012 budget as reported in Deloitte (2011).

13. Nevertheless, they are transferring very large amounts of public resources to Zambian households. If the amounts transferred under these two programs could be redirected, they would make it possible, for example, to provide a transfer of almost US\$110 per annum to every person in Zambia living below the food poverty line,⁸³ equivalent to a K.170,000 per month payment to every household living in extreme poverty.⁸⁴ There may be political support for these programs, but it needs to be recognized that they are providing benefits to many who do not need financial support.

3.2 Program Reviews

A. Agricultural Productivity Transfers

148. The largest productive social transfer programs in Zambia are related to increasing food production among small farmers. This makes sense in an environment in which the consumption levels of most of the poor depend to a large extent on how much food they are able to produce on their own small plots of land (see Box 3).

⁸³ Based very roughly on 35 percent of Zambians living below the food poverty line or about 4.1 million adult-equivalents, at 0.85 adult-equivalents per person.

⁸⁴ Based on four adult equivalents per household.

Box 3: How Potentially Useful is Fertilizer as a Transfer Instrument?

Providing free or subsidized agricultural inputs is potentially one of the most productive and cost-effective safety net interventions. This is because farmers invest their own land and labor (along with the sun and rain) to produce food that is up to two or three times the value of the inputs that they receive.

The vast majority of the poor in eastern and southern Africa are subsistence farmers who rely on the maize that they grow for the core of their food consumption. Fertilizer use is extremely low (60 percent of farmers do not use fertilizer in Zambia) because of weak input and credit markets and because poor farmers do not have the cash needed to buy inputs (about US\$100 for a typical 0.5 hectare plot).

Fertilizer subsidies are extremely popular with governments and with populations, in part because they are not perceived as handouts and because they increase national food self-sufficiency and promote fertilizer use. However universal subsidies are regressive (bigger farmers use more fertilizer so get most of the benefit), they quickly grow to be fiscally unaffordable, and they undermine the development of private distribution networks. They have been increasingly replaced with small packs of free or subsidized inputs that are targeted in theory to small farmers. Following the experience with the Starter Pack program in Malawi in the 1990s almost all countries in the region have introduced some form of such a program. Experience has been mixed, and a number of lessons have emerged:

- Total production and food supply has increased.
- Despite the potential gains, actual supply responses have been variable, with farmers often not getting the additional output that they should.
- Keeping packs small can help to ensure that only poorer farmers receive them (because the larger farmers are not interested), but the total numbers of beneficiaries need to be constrained to keep the programs affordable.
- Targeting has proven problematic so significant efforts need to be invested in targeting.
- Vouchers are generally better than providing the fertilizer itself.

Zambia currently runs two such programs – the Farmers' Input Supply Program for all smallholders, and the Food Security Pack, geared towards poorer farmers. Together they cover about 1.2 million beneficiaries and cost about US\$133 million per annum.

The Food Security Pack

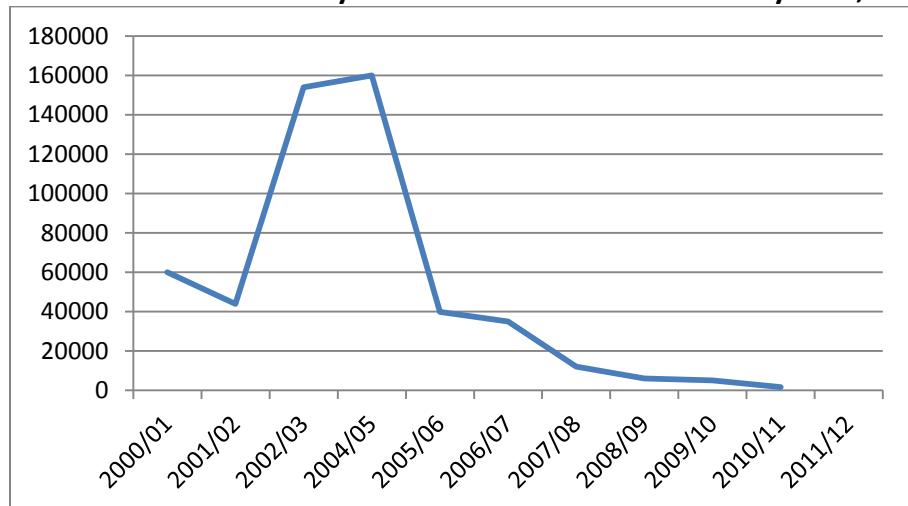
149. The FSP was launched in 2000 as the flagship national social transfer program to address poverty and food insecurity.⁸⁵ It provides small packages of seed and fertilizer to “vulnerable but viable” families. It is targeted to agricultural households that face food insecurity as a result of chronic poverty or insufficient rainfall and was intended to reach 20 percent of smallholder households (about 200,000 households or 1 million people).

⁸⁵ This description is drawn largely from the ILO Social Protection Public Expenditure Review for Zambia (ILO, 2008) and an earlier study comparing the cost-effectiveness of programs in Zambia and Malawi (White, 2006).

Beneficiary families receive enough inputs for 0.5 hectares of land and are expected to repay some of the costs (about 10 to 20 percent) after their harvest.

150. Over the period of its implementation, the coverage of the program has declined drastically, largely as a result of budget constraints and a shift in focus to the larger Farmers' Input Support Program (discussed below). From the outset, the program has suffered from unpredictable funding, which has often been far below the level needed to achieve its stated coverage. The number of actual beneficiaries peaked at about 150,000 households and has since fallen to around 15,000 (see Figure 14).⁸⁶ The government is considering a Norwegian proposal to revitalize the program and expand a strengthened version over the next five years.

Figure 14: Number of Beneficiary Households of the Food Security Pack, 2000-2010



Source: Constructed by the author from IMCS Limited (2010) Table 1, p.21 and from MCDMCH data

151. *Implementation Arrangements.* The Food Security Pack program is implemented by the Ministry of Community Development, Mother and Child Health (MCDMCH).⁸⁷ The ministry procures seed, fertilizer, and other inputs centrally and distributes them to districts

⁸⁶ The number of planned beneficiaries in 2010/11 was 14,400 – 11,400 in rainfed areas and 3,000 in wetlands (MCDMCH data).

⁸⁷ Until 2008, the program was implemented through the Program against Malnutrition and by NGOs, but responsibility for it was then shifted to the Ministry of Community Development, Mother and Child Health.

through Provincial Community Development offices who in turn distribute the inputs to Area Food Security Committees. These committees are then expected to give the packages to selected beneficiaries, with guidance and support from the District Community Development Officer and the District Food Security Committee. Beneficiary farmers are supposed to receive complementary technical support from the extension staff of the Ministry of Agriculture and Livestock.

152. Each farmer receives a package of inputs sufficient to cultivate 0.5 hectares of maize⁸⁸ (or rice if in a wetland area) and 0.25 hectares of legumes as well as cassava and, in some cases, chickens and goats as well. (See Annex Table 1.3 for the current and proposed FSP packages.) To avoid the program being perceived as a pure hand-out, farmers were supposed to repay about 10 percent of the cost of the inputs in-kind out of their harvest. In reality, re-payment rates have only been about 5 percent.

153. Well beyond merely providing inputs, the program is intended help to make farmers self-sustaining by: (i) helping them to diversify their crops; (ii) building village grain storage capacity and seed banks; (iii) promoting conservation farming; and (iv) supporting alternative livelihoods (such as poultry-raising and fishing). In all, there were 10 components and objectives in the original program design.

154. The initial plan was that households would benefit from the program for two or three years until they achieved self-sustaining levels of food production and more commercial use of inputs and thus graduate from the program. However, early results suggested that only about 10 percent had graduated.

⁸⁸ Note the current version of pack has enough seed for 0.5 hectares (2 lima) but only enough fertilizer for 0.25 hectares (1 lima).

155. The FSP has consistently suffered from receiving budget releases far lower than its allocated budget, making it difficult to plan and execute the program in any meaningful way.⁸⁹ Various review reports⁹⁰ have cited the following challenges:

- The links that the program was meant to develop between beneficiaries and the extension system have either not happened or have not been very effective.
- Delayed delivery of inputs due to budget uncertainty and administrative capacity constraints have resulted in inputs sometimes arriving too late to be any use.
- Staff and administrative capacity have been consumed with procurement and distribution tasks, leaving little room for beneficiary support, M&E, or even keeping track of beneficiaries.
- Despite reduced funding, the program was required to remain operational in all districts of the country, resulting in: (i) minuscule levels of coverage (only 200 to 300 farmers per district in recent years or less than 1 percent of farmers in each district); (ii) shifting locations within districts and changing beneficiaries from year to year, thus negating the promotional point of the program ; and (iii) in some cases sub-dividing the input packs by program staff in order to increase coverage to the point where the packs became too small to provide any helpful support.
- Anecdotal evidence suggests that local capacity to implement the program has been lacking in some cases, with the agricultural committees in some districts being described as “virtually moribund.”⁹¹

⁸⁹ According to one study, between 2000/01 and 2007/08, the program never received more than 45 percent of the budgeted amount, and in some years less than 10 percent (REBA, 2007), Table 1, p.4.

⁹⁰ See, for example, REBA (2007) and IMCS Limited (2010).

⁹¹ IMCS Limited (2010) p.27.

156. *Targeting.* Targeting is done by Community Welfare Assistance Committees (CWACs) based on lists initially drawn up village headmen. Beneficiaries are supposed to be selected on the basis of the criteria listed in Table 20.

Table 20: Targeting Criteria for the Food Security Pack

Primary Criteria: (must meet all three)	Secondary Criteria: (must meet at least one)
Have access to land and be cultivating less than 1 hectare Have adequate labor Not be in gainful employment	Female-headed household Households containing orphans or abandoned children Child-headed households Terminally-ill headed households Disabled households Unemployed youths Aged but with labor capacity

157. There are no data available on the extent to which beneficiaries conform to these criteria. Anecdotal reports say that targeting has tended to give preference to the vulnerable aspect over the viable criteria⁹² – possibly increasing the pro-poor bias but at the expense of achieving the desired productivity gains. There is no reported quantitative evidence on the effectiveness of targeting, nor is there any of the extent to which the program is reaching the poor.

158. *Costs and Cost-effectiveness.* The budget for the program in 2010/11 was K.15 billion (US\$3.1 million), down from a peak of about US\$5 million annually.⁹³ As a result of the declining scale of the program, overheads and operating costs have been increasing as a share of the total, to the point where in 2008/09 they were estimated to have represented 50 percent of program costs.⁹⁴ Recent evidence on the cost-efficiency of the FSP is not available, but if these earlier data are right, then it is costing almost US\$2 to implement for every US\$1 worth of inputs delivered. (Although in fairness it needs to be recognized that the intention of the program is to deliver much more in the way of support than just the

⁹² IMCS Limited (2010), p.25.

⁹³ ICMS Limited (2010), Table 1 p.21.

⁹⁴ ICMS Limited (2010), Table 3, p.23. Even in earlier years when the FSP operated on a larger scale, operating and administrative costs averaged about 30 percent of total costs.

inputs provided, so judging what constitutes a reasonable ratio of total costs to inputs delivered is difficult.)

159. *Value of Transfer.* At a minimum, the value of the transfer to the recipient household should be equal to the retail cost of the fertilizer and seeds provided (assuming they could be sold on the open market by the beneficiary). Beyond that, it depends entirely on the supply response to the package provided. This can range from zero (if the fertilizer is not used or drought renders it ineffective) up to several hundred dollars' worth of additional food consumption. There are no hard data on the production gains that poor households have achieved under the FSP, but we can simulate the effects of the fertilizer and maize seed use alone. Table 21 shows the range of the possible impact using actual response rates achieved by smallholders in Zambia.

Table 21: Approximate Cost-Benefit Calculations for Food Security Pack Program (Fertilizer and Maize Component Only)

	<i>Weak Response</i>	<i>Moderate Response</i>	<i>Good Response</i>
Incremental Maize Yield (kg. per kg. fertilizer used)	2.0	3.75	5.0
Additional Maize per HH (kg.) ^{a/}	300	475	600
Value (Kwacha) ^{b/}	300,000 (\$60)	475,000 (\$95)	600,000 (\$120)
Cost of Fertilizer and Seed ^{c/}	450,000 (\$90)	450,000 (\$90)	450,000 (\$90)
\$ of Benefit per \$1 Spent	\$ 0.66	\$ 1.05	\$ 1.33

Source: Author's calculations

Notes: a/ Based on use of 100 kilograms of fertilizer. Average coverage of 0.5 hectares, 0.25 (1 lima) fertilized and 0.25 unfertilized since the current FSP provides enough fertilizer for only 1 lima. Fertilizer responses derived from a range of estimates in World Bank (2010a), Mason et al (2011), and discussions with staff of the Food Security Research Project. Illustrative response rates of 2.0, 3.75 and 5.0 kg maize/kg fertilizer. Assumes roughly 100 kilogram of incremental maize output from seed alone on unfertilized part.

b/ Retail maize price of K.1,000 per kilogram (for net buyers).

c/ Based on costs of fertilizer and maize seed only.

160. As discussed in Box 3, the actual experience with output gains from the use of fertilizer by small farmers has been highly variable and has often been disappointing. There is no hard evidence on the impact of the FSP program. Monitoring efforts have concentrated on assessing the delivery of packs and accountability, and unfortunately there

has been no effort to measure on-farm production outcomes or consumption increases among beneficiaries or to compare them to control groups in the same area.

161. The numbers in Table 21 are based on the impact (and costs) of the fertilizer and maize seed alone. In reality, the program's costs are substantially higher, and the benefits – if it is effectively implemented – are potentially much higher (because of the additional cassava and legume outputs and other un-quantified farming and storage improvements). The total cost of the program per beneficiary household in 2011 was US\$215 (K.1.1 million).⁹⁵ This amount of money enabled the delivery of a package of benefits with a retail value of only about US\$102 (K.510,000) (see Annex Table 1.3), which shows that the program's overhead costs are extremely high. For this program to represent a good investment as a safety net transfer, the output increases achieved by households as a result of the program overall would need to be at least double those estimated in Table 21 for the maize and fertilizer part alone.

162. *Commentary.* The FSP program has the advantage of being one of the few productive transfer programs aimed at the poor in Zambia. It has suffered from a number of obvious shortcomings: (i) coverage is extremely low; (ii) the critical productivity-enhancing technical support has generally not been available; and (iii) the failure to measure the program's impact makes it impossible to judge its effectiveness. The overwhelming impression is of a program with good intentions that was starved of cash and that completely overwhelmed the capacity of the agencies tasked with implementing it.

163. On balance, the FSP as originally designed was probably too complex and ambitious. As one review somewhat uncharitably put it: “a scheme with 10 objectives, many of them individually rather complex, never really had the remotest chance of success.”⁹⁶ While the targeting criteria involve welfare concerns, it is not clear why a program that depends on a

⁹⁵ Based on K.15 billion (\$3.1 million) and 14,400 beneficiaries.

⁹⁶ REBA (2007).

whole range of intricate agricultural interventions should be implemented by the Ministry of Community Development, Mother and Child Health. Finally, it illustrates the notion that a program should not be scaled up unless and until stable resources have been committed to it for a number of years.

164. *Extended FSP Proposal.* Recognizing the problems with the current program and the inherent attractiveness of using an agriculture-based productive safety net program for the poorest, the government is now circulating a proposal for an enhanced version of the FSP – the EFSP.⁹⁷ The new model would involve:

- Strengthening targeting.
- Adopting a model of lead farmers⁹⁸ and more extension support from the private sector.
- A larger input pack (consisting of enough maize and fertilizer to cover 0.5 hectares).
- Providing a social cash transfer of K.100,000-150,000 to households during the lean season.
- Using e-vouchers instead of the physical distribution of packs.
- Stronger monitoring and evaluation.

165. Recognizing that part of the difficulty the FSP has faced is the logistic challenge of trying to operate nationwide, the new version proposes a more gradual expansion, starting in three districts and rolling out to 12 over the next five years. Within those districts, the program would target areas with high poverty and food insecurity. During the five years of its expansion, the EFSP would be intended to serve as a model for scaling up safety net programs and attracting wider donor support. Three variants of the revised program are

⁹⁷ IMCS Limited (2010)

⁹⁸ The practice of using “lead farmers” to demonstrate new techniques is widely used in agricultural extension. It has the potential to increase the effectiveness and cost-effectiveness of extension services by enabling agents to focus on just one or two farmers in an area/village to provide a demonstration effect.

being proposed covering between 45,000 and 90,000 farmers and costing between US\$22.3 million and \$40.6 million for the five-year period, an average of about US\$500 per beneficiary household.⁹⁹

166. The underlying logic still makes sense – to support very poor farming households who cannot access inputs, who live in remote areas and who exhibit characteristics associated with extreme poverty (such as female-headed households and those that contain orphans). However, the execution of the FSP to date has not lived up to its promise, and we cannot really tell how effective the model is because the program has never been adequately funded, and its impact has never been properly monitored.

167. To continue with more of the same there would need to be a very much greater investment in implementation and in providing the technical support that only skilled agricultural staff can bring to the program. The new package still looks complex, involving an ambitious set of interventions, and the track record to date has not been encouraging.

168. The assumptions about graduation have not proven well-founded in the past. The experience worldwide has been that it is difficult to make the link between safety net programs and agricultural extension, and in general such programs have worked less well than was hoped. In Zambia, the effectiveness of the extension system is often compromised because agents are occupied with managing the FISP program or because there are not enough agents in a given area. Given the extreme poverty of many smallholder farming households, it seems unrealistic to expect that they can substantially increase their production levels in just a few years, and policymakers should perhaps consider a more sustained program of input support for some of them.

⁹⁹ The assumption is that households will receive input benefits for two years, and continuing technical support for an additional two.

169. The idea of a small, targeted input pack is nonetheless worth trying – it is one of the few productive safety net options immediately applicable to many poor Zambians. If the EFSP is to go ahead, it will be essential to monitor its actual consumption impact and to be willing to consider ending the program if it is not having the desired impact. Also, careful attention needs to be paid to the relationship between the revised EFSP and the FISP program (discussed below) since, with the proposed changes to the FSP, the two programs are becoming increasingly alike.

Farmers' Input Support Program (FISP)

170. The largest consistently operating transfer program in the country, the FISP provides subsidized fertilizer and seed to smallholder farmers. The difference between the FISP and the FSP is that the Food Security Pack is explicitly aimed at poor farmers with vulnerability characteristics (female-headed, containing orphans, critically ill, etc.) while the much larger FISP is intended to provide a subsidy to all smallholder farmers. The program covered about 200,000 households (about 1 million people) in 2009/10¹⁰⁰ at a budgeted cost of K.492 billion. In 2011 it aimed to increase its coverage to reach 850,000 farmers, at a cost of K.635 billion (US\$130 million) or an average cost of US\$165 per beneficiary household.

171. The program has multiple objectives – to encourage greater fertilizer use, to cushion the effect of world fertilizer price increases, to raise overall maize production, and to reduce poverty by increasing the consumption of small farmers (who constitute the bulk of the poor in Zambia).

172. The FISP program was introduced in 2002 as a temporary measure, partly to replace an unsustainable input credit program and partly because, following Zambia's market liberalization, it had become clear that small farmers could not afford fertilizer from the private sector.

¹⁰⁰World Bank (2010a).

173. Although the program was in theory temporary, it is now in its 10th season and has grown tremendously (Table 22) to the point where it cost US\$130 million or 0.7 percent of GDP in 2011.

Table 22: FISP Beneficiaries and Expenditure, Selected Years from 2002/03 to 2010/11

Year	Expenditure (K billions)	US\$ million	No. of Beneficiaries (Farmers)
2002/03	100	\$22	120,000
2006/07	252	\$66	210,000
2008/09	492	\$120	200,000
2010	591	\$123	530,000
2011	635	\$130	<800,000

Sources: Data for 2008/09 from World Bank (2010a), Table 1, p. 2. Data on 2009-2011 expenditure from analysis by World Bank staff based on data from the Government of Zambia.

Note: Program costs can vary substantially from year to year because of swings in world fertilizer prices and the exchange rate.

174. In the 2011 season, the number of beneficiaries was doubled without significantly increasing program costs as a result of reducing the benefit package from eight bags of fertilizer to four.

175. The subsidy was originally 50 percent but was increased to 80 percent by 2008/09 because of the spike in global fertilizer prices. It is currently about 75 percent, in other words, the recipient farmers pay 25 percent of the cost of the input package, and the government pays 75 percent.

176. The package had until recently consisted of 400 kilograms of fertilizer (four 50 kilogram bags each of urea and DAP) and maize seed, intended to cultivate an area of 1 hectare. In the past year, the size of the pack was halved (to 10 kilograms of seed and two 50 kilogram bags each of urea and DAP), enough to cultivate 0.5 hectare. There is a presumption that the reduction will not result in a corresponding output drop because of the very poor response to basal fertilizer in Zambia.

177. The current retail value of this pack is estimated at about K.790,000¹⁰¹ (US\$158) per household. In theory, each beneficiary household is only allowed one package of subsidized seed and fertilizer, but there are reportedly many cases of farmers receiving multiple packs.

178. *Implementation Arrangements.* The FISP program is operated by the Ministry of Agriculture and Livestock. Farmer cooperatives are the main instrument for implementing the program. Inputs are delivered to the district level by private firms selected through a national tender and are released to selected beneficiaries through cooperatives and other farmer organizations approved by the District Agricultural Committee.¹⁰² Farmers have to deposit their share of the cost of the package (currently K.280,000 or about US\$54) in a cooperative account before the package is released. The ministry is currently discussing the possibility of shifting to using electronic vouchers.

179. An analysis based on the program's performance in 2007/08 suggested that delivery costs and the administrative operation of the program amounted to about 17 percent of total program costs.¹⁰³

180. The program has suffered from a number of implementation problems at various times, including the late delivery of inputs, instances of uncertainty over targeting criteria, a lack of transparency, and some cases of corruption and theft.

181. *Targeting.* Beneficiary farmers are selected by agricultural cooperatives or approved farmer groups on the basis of the following criteria:

- (i) Should be a small-scale farmer and be actively engaged in farming.

¹⁰¹ Based on urban fertilizer prices of about K.165,000 per bag – the value will be higher in rural areas where prices can be up to K.210,000.

¹⁰² There are numerous accounts of family members forming cooperatives in order to access to multiple packages.

¹⁰³ World Bank (2010a), Table 12, p. 27. Based on total costs of US\$47.4, netting out the direct costs borne by farmers but including logistics, administration, and other costs of the ministry's staff time.

- (ii) Should have the capacity to grow 0.5 to 5 hectares of maize.
- (iii) Should have the capacity to pay their share of the subsidized input package.
- (iv) Should not currently benefit from the Food Security Pack program.

182. Clearly these criteria rule out some of the very poorest, who would not have the available land or labor or not be able to finance their share of the inputs, but the criteria should still include quite a large share of low-income smallholders in Zambia. The recent reduction of the package to a size suited to the cultivation of 0.5 hectare of land should in theory increase the number of smallholder farmers at the bottom of the scale who could benefit. However, the upfront cash requirements (a one-off fee of K.250,000 to join a cooperative combined with the K.280,000 cost of the package) represent a level of cash that is almost certainly not available to households in the bottom 20 to 30 percent of the population (see Chapter 2).

183. There are claims that ineligible beneficiaries are receiving subsidized fertilizer from the program,¹⁰⁴ but there is little empirical evidence to confirm this one way or the other. Furthermore, since there is no very clear-cut definition of who should benefit, it is hard to say who is ineligible. An earlier survey found that 63 percent of beneficiaries were male and 43 percent were female and that 45 percent had not used fertilizer prior to the FISP.¹⁰⁵

184. Much of the subsidized fertilizer has gone to larger farmers (Table 23). Assuming the relationship between landholding size and poverty discussed in Chapter 2 is true, we can surmise that approximately 70 percent of the benefits of this spending went to the non-poor or at least to those who are not among the very poor.

¹⁰⁴ World Bank (2010a), p.33.

¹⁰⁵ World Bank (2010a), p.33.

Table 23: FISP Fertilizer by Area Cultivated, 2010/11 Season

Farm Size Group (Cultivated Area in hectares)	% of Farmers Receiving FISP Fertilizer	Average kg. Received per HH ^{a/}	Share of Total FISP Fertilizer	Avg. Program Expenditure Per HH ^{a/}
0-0.99	14.3%	169	12.4%	\$ 188
1-1.99	30.6%	226	29.8%	\$ 253
2-4.99	45.1%	310	42.6%	\$ 347
5-9.99	58.5%	529	13.2%	\$ 593
10-20	52.6%	657	2.1%	\$ 735

Source: Author's calculations based on data drawn from Jayne et al (2011b), Table 2, p.3.

Note: a/ Per household that received FISP fertilizer.

185. Not only were farmers with small landholdings far less likely to receive subsidized fertilizer under the FISP program, they also received much less of it. As can be seen in Table 23, only 14.3 percent of farmers in the smallest landholding category received FISP fertilizer in 2010/11 as opposed to over 50 percent in the largest farm size categories (second column). Also, farmers in the smallest landholding category received only an average of 169 kilograms each as opposed to the 657 kilograms received by the largest farmers. As a consequence, only 12.4 percent of program benefits went to farmers in the smallest size group, even though they constitute the largest single group of farming households (42 percent of farms in Zambia). The average per household expenditure by the program was four times higher for farmers with large landholdings than for those with small landholdings (US\$735 as opposed to US\$188).

186. While there is no one-to-one correspondence between landholding size and poverty, these results clearly indicate that the poor are receiving a very small share of the program's benefits. An earlier analysis based on 2003 data¹⁰⁶ estimated that beneficiary households

¹⁰⁶ Minde et al (2008).

had three times the total household income of non-beneficiaries, had farm assets of much greater value, and tended to live closer to district towns.¹⁰⁷

187. Parallel work by the World Bank staff¹⁰⁸ using 2010 LCMS data also showed that the lion's share of subsidized fertilizer accrues to farmers in the middle income quintiles. This is not surprising given the program's focus on productive farmers, the relatively high upfront cash requirements, and the fact the poorest also are more likely to be landless. At the same time, households in the highest income groups are somewhat *less* likely to benefit because they are more likely to be urban non-farmers. The survey data showed that only 9 percent of households in the bottom quintile reported growing maize with fertilizer or seeds received from the government or a cooperative.

188. *Benefits and Cost-effectiveness.* The impact of the program is not known with certainty. As noted earlier, maize production has grown considerably over the past eight years, almost doubling since 2008, in part due to the provision of FISP fertilizer. However, the weather has also been particularly good during this period, and quite a lot of the increase has been due to additional areas planted rather than to increased yields. One estimate suggested that only 15 percent of the increase in output was due to additional fertilizer use.¹⁰⁹

189. Such large additions to output have undoubtedly led to increases in maize supply in rural areas as well as to some increase in food availability for the poor and some downward pressure on prices. However, the distributional effects have not been particularly pro-poor (see discussion above), and the price reduction benefits have been offset by the upward pressure on producer prices as a result of FRA's maize purchase scheme (discussed below).

¹⁰⁷ ReSAKSS (2008). Note with the much narrower coverage in 2003, the profile of beneficiaries and non-beneficiaries may have been different from today.

¹⁰⁸ World Bank (2012a).

¹⁰⁹ Mason et al (2011).

190. In theory, an input program can provide highly leveraged benefits to poor farmers because they invest the labor and land to produce incremental outputs worth much more than the cost of the transfer. However, there are no good estimates of the value of the consumption benefit to households in Zambia, although one earlier study estimated that it cost US\$1.17 to deliver \$1 worth of benefit under the FISP.¹¹⁰

Table 24: Estimated Benefits and Cost-effectiveness of the FISP Transfer (per Pack), 2011

	Weak Response	Medium	Strong Response
Cost per Beneficiary HH/ ^{a/}	K.513,000 (\$103)	K.513,000 (\$103)	K.513,000 (\$103)
Retail Value of Subsidy per Beneficiary HH ^{b/}	K.510,000 (\$102)	K.510,000 (\$102)	K.510,000 (\$102)
Estimated Value of Incremental Output ^{c/}	K.400,000 (\$80) <i>Net 120,000 (\$24)</i>	K.750,000 (\$150) <i>470,000 (\$94)</i>	K.1,000,000 (\$200) <i>Net 720,000 (\$144)</i>
Approx. \$ of Net Benefit per \$1 of Program Cost	\$ 0.23	\$ 0.91	\$ 1.40

Notes: a/ Average based on 2011 coverage of 800,000 and costs of K.635 billion, net of farmer contribution of K.250,000.

b/ Subsidy value based on standard pack of four 50 kilogram bags and estimated retail price of K.165,000 for each 50 kilogram bag of fertilizer, and K.130,000 for 10 kg of seed minus farmer contribution of K.280,000 and a coop fee of K250,000 amortized over five years.

c/ Based on response rates of 2.0 kilograms of maize (low), 3.75 kilograms of maize (moderate), and 5.0 kilograms of maize (high) per kilogram of fertilizer.

191. The additional output based under the medium response is 15 50 kilogram bags of maize. Split among a family of five, this represents about a year's worth of core food supply.¹¹¹ In cash terms, it represents about K.750,000 in money that would otherwise have to be spent on food (K.470,000, net of the farmer's share of input costs) and is thus roughly equivalent to a cash transfer of about K.39,170 per month (US\$7.84 per household).¹¹²/¹¹³

¹¹⁰ White (2006)

¹¹¹ Based on 5.3 people per household and a maize requirement of 8.33 kilograms per person per month or 273 grams per person per day (ZVAC, 2008, p.8).

¹¹² K.10,400 per adult equivalent per month (based on 4.5 adult equivalent per household) or about 10 percent of the food poverty line income.

¹¹³ The calculations in Table 24 are based on the urban fertilizer price of K.165,000 per 50 kilogram bag. Prices are higher in rural areas (up to K.210,000 per bag), so the effective value of the subsidy would be higher for farmers living in more remote areas (who are also on average poorer). However, the net benefit, in terms of the amount of maize produced, would not be affected.

192. *Commentary.* While the FISP has other objectives (including promoting national maize self-sufficiency and fertilizer use), the analysis here shows that, as presently configured, it is not a cost-effective way of reducing poverty among the poorest. Most of the benefits of spending on the program go to farmers with larger landholdings, who are among the non-poor, and the upfront cash requirement eliminates most of the poor from participating. At current response rates, many poor recipients would be better off receiving a cash transfer. To the extent that the government wants to continue to promote fertilizer use among this group, part of such a cash transfer might be provided in the form of a voucher redeemable for agricultural inputs.

193. Beyond this, the calculations in Table 24 show that at current prices and average response rates, it is not even a cost-effective way of making transfers to the non-poor, resulting in incremental maize production that is only worth slightly more than the cost of delivering a pack. The program has a number of other drawbacks, including discouraging the development of a network of private traders and suppliers, perpetuating farmers' reliance on maize monoculture, and diverting the efforts of agricultural extension staff to managing the distribution of inputs.

194. The World Bank has argued that the costs of the program could be reduced substantially, for example, by reducing the amount of the subsidy by half (to about K.250,000 or US\$50 per farmer) or by phasing out support to less remote areas. In combination, these two actions could reduce the cost of the program by about US\$68 million per annum.

Box 4: The Link between the FSP and the FISP

With recent changes, the FSP and the FISP now deliver an almost identical seed and fertilizer pack, and there is an obvious need to harmonize the FISP and the revised FSP program. In theory splitting the general subsidy (FISP) from a program of free targeted packs (FSP) makes sense – with the latter catering to lower-income farmers. In reality there is little justification for continuing a generalized subsidy at all, although, because it is politically popular, it would need to be phased out over time. Furthermore with the reduction in size of the FISP package to 0.5 hectare coverage, the FISP is now more like a small-pack program, and the two programs are increasingly similar. This will be even more the case if the proposed enhanced FSP program is adopted, in which case it will deliver the same size package as the FISP.

The ideal solution, if any inputs-based program is to be retained, would be to slowly phase out the general subsidy program and merge it with the remains of FSP, with a limited number of small packs targeted to poor/vulnerable farmers. This integrated program would then become a single poverty-targeted small-pack /voucher program.

B. Food and Feeding Programs

Home Grown School Feeding Program

195. The Home Grown School Feeding Program (HGSFP) is one of the largest transfer programs in the country. Until recently it reached about 320,000 children annually at a cost of about US\$8.6 million a year. The program expanded dramatically in 2011 and 2012 as a result of an extraordinary injection of resources from the government in the form of surplus maize procured by the FRA. It is currently reaching about 800,000 students, but it is not yet clear at what level the expanded program will be sustained. As with all school feeding programs, it is intended to serve the dual purposes of increasing food consumption among the poor as well as attracting and retaining children in school and improving their learning outcomes.

196. Children in Grades 1 through 9 in selected schools receive a small meal equivalent to about 100 grams of fortified maize meal each day for 180 days of the school year.¹¹⁴ Until

¹¹⁴ In reality, it is likely that children receive school meals on fewer than the full 180 days a year. This has been the experience in most other countries in the region.

recently, school meals in Zambia were provided through two separate channels, with the WFP-funded part of the program supporting 280,000 children and a government-financed part providing packages of an instant fortified meal called Provita, which were imported from South Africa at a substantially higher cost.

197. The two programs are now being harmonized into a single Home Grown School Feeding Program, which uses a uniform meal and delivery system, relies more on local procurement of food, and is increasingly owned and operated by the government. This is consistent with current practice worldwide in school feeding programs and across Africa under the New Partnership for Africa's Development's (NEPAD) HGSF initiative.

198. Typically about 10 percent of the primary student population in Zambia receives school meals. With the recent expansion, this has reached almost 22 percent in the past year. Given the distribution of children among households, this would imply that about one-fifth of Zambian households are benefitting from the school feeding program.¹¹⁵

**Table 25: Scale and Coverage of Home Grown School Feeding Program
(Absolute number and share of total)**

	Students	Districts	Schools
2010	320,000 (9%)	28 (38%)	921 (11%)
2011	850,000 (22%)	31 (42%)	2,365 (28%)

199. *Targeting.* Prior to the most recent year, districts were targeted on the basis of Vulnerability Assessment Mapping (VAM), which gauges food insecurity. However, in the 2011-2012 period, the criteria shifted toward the use of educational measures. The indicators that are now used are: (i) the net enrollment rate; (ii) the dropout and completion rates; and (iii) the extreme poverty rate.¹¹⁶

¹¹⁵ Based roughly on 1.5 children of primary school age per participating household and about 2.6 million households in total. This assumes that the planned 850,000 students in the expanded 2011 program all received school meals, but it is not known how many were actually reached.

¹¹⁶ The actual values used were a net enrollment rate of less than 80 percent, a completion rate of less than 50 percent, a dropout rate of more than 5 percent, and an extreme poverty rate of more than 50 percent.

200. Previously the number of schools targeted within a district was determined by the available budget, with the District Education Officer having the responsibility for deciding which schools would benefit. However, with the large expansion of the program in 2011, all schools in a selected district began to provide school feeding and all children within a selected school received the meal. There is no evidence available as to whether poorer than average students or schools are being selected as a result of this new process. The fact that poor children are almost as likely to go to primary school as non-poor (see incidence data in Chapter 2), and that, provided the stated criteria were applied, poorer than average districts were chosen for the program suggests that school feeding is likely to be benefitting poor households at least in proportion to their share in the population.

201. *Implementation Arrangements.* The food is procured centrally and is delivered to schools where it is prepared and cooked. The cooking is generally done by parents from the community. The most recent evaluation by the WFP¹¹⁷ in 2011 reported that the organization and management of the programs puts a significant burden on the people tasked with making sure that it is implemented at the local level (typically Ministry of Education officials who have other responsibilities). The evaluation also mentioned some logistical problems that have resulted in the late delivery or non-delivery of food. The rapid expansion of the program in 2011 involved significant challenges, including difficulties in storing and delivering maize and large losses due to spoilage.

202. There is at the moment no permanent institutional capacity in the Ministry of Education to run a much-expanded school feeding program, and it seems doubtful that creating such a program would be the best use of education managerial staff. It is likely that the government would control the proposed expanded Home Grown School Feeding Program but would sub-contract its logistical management to the WFP.

¹¹⁷ WFP (2011a).

203. The school meal consists of 100 grams of maize meal and 10 grams of vegetable oil, which is equivalent very roughly to 500 kcal per day or 24 percent of the daily caloric requirement for a child of 10 years old. Under the WFP program, students were also provided with take-home rations, but this practice was halted in 2009. School feeding does not usually try to address child malnutrition (it comes too late to affect the critical 0 to 24 month period), but adding iron fortification to maize would be a cost-effective way of increasing the nutritional impact of the school meal.

204. *Value of the Transfer.* The direct transfer value of school feeding is the cost that a family would have to pay to buy the same amount of food. Very roughly we estimate this to be about K.520 (US\$0.10) per meal at current prices.¹¹⁸ This implies that the transfer value would be equivalent to K.15,500 per month (US\$3.12) if a family has two children in primary school. However, this depends on the children actually receiving the meal every day, which is often not the case either because of logistical problems or because the child does not attend school that day.¹¹⁹

205. Clearly the intended benefits of school feeding include improved learning outcomes and potentially higher lifetime earnings, although we have no reliable estimates of these outcomes for the Zambia school feeding program.¹²⁰ Evaluations of other similar programs have shown that the impact of school feeding on educational outcomes and attendance is positive but not very strong.¹²¹

¹¹⁸ Based on 100 grams of maize, 20 grams of beans, and 10 grams of oil at Lusaka retail prices as reported by the CSO Monthly Bulletin, April 2011.

¹¹⁹ Based on 180 days per year averaged over 12 months, which translates into approximately 15 meal-days per student per month.

¹²⁰ The Home Grown School Feeding Plan (Ministry of Education, 2011) estimates lifetime productivity increases of US\$1,649 per child from nine years of school feeding due to better health and education outcomes, though the basis for this is not particularly rigorous.

¹²¹ Adelman et al (2008).

206. *Costs and Cost-effectiveness.* As noted above, the cost of the program for the last year for which data are available (2010) was about US\$8.6 million. The cost structure of school feeding for the most recent year (2011) is not clear because of the large amount of grain transferred to the program by the government from the FRA. We estimate the true resource cost might be in the neighborhood of US\$16 million based on the average cost per student in the past.¹²²

207. The unit costs of the program have varied substantially from about US\$20 per student annually (which is comparable to the costs of basic school feeding in other countries) under the WFP program up to US\$75 per student under the previous version of the government program (Annex Table 1.4). The costs of the proposed expanded program are estimated to be roughly US\$21 per student per year.

208. Rough calculations by the author in discussions with the WFP suggest that in 2012 the value to each family of the food received is about K.76,000 (US\$15.20) per child annually.¹²³ If this is correct, then school feeding would represent a moderately efficient way of transferring resources to a household – costing about \$1.45 for every \$1 worth of transfer received.¹²⁴ However the underlying costs of the program in its expanded form are not yet well known, and this cost-effectiveness calculation should be re-examined when better costing data are available.

209. *Commentary.* There has been no rigorous evaluation of the impact of the Home Grown School Feeding Program. The most recent end-of-term review by the WFP¹²⁵

¹²² In 2011, the FRA provided the Ministry of Education with 18,000 tons of maize at below the cost at which FRA had purchased it. Transport and distribution costs are not available, and it is not clear whether complementary beans and oil were provided to all 850,000 students.

¹²³ Based on 100 grams of maize and 20 kilograms of beans daily without the value of oil, which if provided would increase the value somewhat. However, the HGSFP expansion proposal (Ministry of Education, 2011) estimated the implicit transfer value of the Zambian school meal to be only about US\$7 per student per year, implying a transfer value of only US\$0.04 per meal, although it does not say how this was calculated.

¹²⁴ Based on an annual cost of US\$22 per student and a consumption value of US\$15.20 per student.

¹²⁵ WFP (2011b).

reported that enrollment and attendance rates have increased in schools with school feeding since the program was introduced. However, there was no control group of similar schools with no school feeding, and the program was introduced at a time when enrollment rates have been rising nationwide so it is difficult to attribute these effects to the program. The teachers and headmasters interviewed for the WFP report believe that the provision of food has attracted students to school, helped to keep them in school, and made them more attentive. These effects have been documented globally from school feeding programs,¹²⁶ although in many cases the magnitude of the difference between schools with and without school feeding is not very great.

210. The current proposal for the Home Grown School Feeding Program envisages that it will be expanded to permanently cover about 1 million students (about a third of the total) by 2015 at an estimated cost of between US\$22 million and \$28.5 million (K.110 to 143 billion) per annum.¹²⁷ This may be something of an under-estimate of the true resource costs given the experience to date with costs of school feeding in Zambia, but the order of magnitude is probably about right.

211. Based on the available data, continuing the limited expansion of school feeding appears to make sense, provided that it is carefully targeted to the poorest districts and that it is phased in slowly depending on the availability of resources and implementation capacity. However, before proceeding, it will be critically important to assess the true resource costs per meal delivered of the expanded plan and of the value of the meal provided. If the *costs* correspond to the US\$20 per student per year and the value of the meal is close to the US\$0.10 estimated above, then school feeding represents a fairly cost-effective way of making transfers in Zambia and has the added benefits of positively influencing enrollment, attendance, and student attentiveness. If on the other hand the

¹²⁶ See for example Bundy et al (2009).

¹²⁷ The HGSF expansion plan document (Ministry of Education, 2011, pp.45-46). The difference in cost depends on whether a supplementary ration of milk is included or not.

costs are higher, or the transfer value is lower, then school feeding would represent a relatively expensive way of making a transfer.¹²⁸ In this case, the learning benefits would have to be very high to justify the additional expenditure, and families would in general be better off with a cash transfer.

212. In reality, given that the initial expansion has already taken place, political considerations make it unlikely politically that it will be reversed. Therefore, the question is whether to sustain the current version of the program or to continue the expansion until the proposed target of 1 million students is reached. The most recent expansion has been possible because of the availability of surplus maize donated by the government from the FRA. However, to sustain this level of coverage over the long term will require substantially more fiscal resources (about US\$22 million per annum), so any further expansions of school feeding should be evaluated in comparison to other safety net options.

Milk for Schools

213. This is a new program, aiming to provide a milk ration for three to five days a week to 13,000 students in Grades 1-9. It has the multiple objectives of improving nutrition, increasing attendance, and encouraging local milk production. The program, which is financed by SIDA, is being implemented jointly by the Ministries of Livestock and Education, the WFP, and private sector milk producers. It is currently being implemented in the Nyimba district on a pilot basis in 2011/12, with the intention of expanding it if the experience is successful and financing allows. There are no data available by which to judge the program's effectiveness as a poverty-reduction transfer, but *a priori* it should be noted that providing milk is generally an expensive way of making transfers or addressing nutritional shortfalls.

¹²⁸ The uncertainty stems from the composition of the meal (whether or not it will contain oil and beans or only maize) and the costs of procurement, delivery, and management of the expanded program. These are uncertain at the moment because the expanded program has not yet been realistically costed (in part because of the use of donated maize and the pending decisions on implementation arrangements and meal composition). The HGSFP document (Ministry of Education, 2011, p.36) implies a value closer to US\$7 per student per year (US\$64 discounted over nine years), implying a cost of almost \$3 for every \$1 transferred.

Adding iron to maize meal generally has greater potential for improving the health of school-aged children than milk.¹²⁹/¹³⁰

SPLASH Voucher Scheme (Sustainable Program for Livelihoods and Solutions for Hunger)

214. SPLASH was an innovative voucher scheme designed to improve the nutrition of very poor families, which ran between 2009 and 2011. Although it is not currently operating, a follow-on program has been formulated, and the SPLASH scheme had many elements of a potentially effective safety net program. It is reviewed here both to assess any lessons learned and to evaluate the role that a similar instrument might play as part of a longer-term safety net strategy.

215. SPLASH provided vouchers to vulnerable families affected by high food prices who were targeted on the basis of either having a malnourished child or a member receiving ART or TB treatment. The voucher purchased a ration worth about US\$14 and was provided for between four and eight months.¹³¹

216. A total of 52,000 beneficiary households were reached by the program over a period of about a year and a half¹³² at a total cost of US\$5.4 million. In total, 260,300 people benefitted,¹³³ equivalent to about 5 percent of the population living below the food poverty line.

¹²⁹ Alderman and Bundy (2011).

¹³⁰ Adelman et al (2008).

¹³¹ According to the SPLASH evaluation document (WFP (2011e), the ration consisted of 25 kilograms of maize, oil, beans, and soap. Households received the ration for an average of about 5.5 months during the program.

¹³² The program operated from November 2009 until March 2011. The first few months were a start-up phase, and large-scale coverage lasted about a year in total.

¹³³ Communication from WFP staff to the authors. Estimates vary. The SPLASH evaluation report (WFP (2011e) cites an estimate of 350,000 but also 52,000 households), which implies an implausibly large household size (7 on average) and also may include coverage over the whole life of the program.

217. The scheme operated in five districts¹³⁴ (out of a total 72), and coverage represented about 9 percent of the population of those districts.¹³⁵ SPLASH was initially implemented in the settlement areas of Lusaka because a 2008 assessment had indicated that there was a crisis of severe and moderately malnourished children in Lusaka settlements. It was then expanded to other poor urban areas on the grounds that the rapid increase in food prices in 2008 had radically undermined the consumption of the urban poor.

218. Each household received a monthly voucher for up to a maximum of eight months redeemable at local retail shops for a basic package of 25 kilograms of maize, oil, beans, and soap. The cash equivalent value of this package was about K.65,000, or roughly 17 percent of the estimated food poverty line income.¹³⁶ (It is possible that the effective benefit to households could have been more than the notional value of US\$14 because of the traditional practice of buying food in small quantities at a higher cumulative cost.)¹³⁷

219. *Targeting.* Beneficiaries were identified at health centers on the basis of being malnourished (in the case of children) or because they were receiving ART or TB treatment. An additional socioeconomic screen was then applied to confirm that the households were poor (see discussion below on targeting). Nutritional (or ART or TB) status was used primarily as an *entry point* to identify beneficiaries, although during the period of eligibility malnourished children were regularly monitored, and TB and ART clients had to continue their course of treatment. The stated rationale for the eight-month eligibility period was that, by the end of that period, malnourished children should have recovered, TB patients would have completed their course of treatment, and ART clients should have stabilized

¹³⁴ The five districts were Kafue, Livingstone, Lusaka, Mongu, and Ndola.

¹³⁵ Based on coverage of 260,000 and a population of the five districts of 2,760,000 based on the 2010 Census results.

¹³⁶ Based on a household size of four adult equivalents (and thus a transfer of about K.16,450 each) and a food poverty line of K.98,505 per adult equivalent (Chapter 2).

¹³⁷ The 65,000 represented about 10 percent of the estimated total expenditure of the average beneficiary household (based on monthly expenditure of K.133,061 per capita cited in the SPLASH evaluation report (WFP, 2011e)).

enough to continue their medication without additional incentives. Although the period may also have been influenced by the length of time for which funding was available, the program was financed as part of the extraordinary effort to respond to hardships caused by high global food prices.

220. The Ministry of Health selected the five districts with the highest incidence child malnutrition, HIV, and TB. District health management teams then selected health centers within these districts to participate in the program based on malnutrition, HIV, and TB prevalence rates, with preference given to low-income areas. However, no evidence is available on how rigorously these criteria were applied.

221. Households with malnourished children were identified by health center staff at monthly under-5 clinics or at outpatient therapeutic care units, while children discharged from hospital malnutrition units were automatically enrolled.¹³⁸ Partner NGOs were then responsible for finalizing beneficiary lists, taking into account the socioeconomic status of households.¹³⁹ The evaluation documentation does not indicate what criteria were applied to determine poverty status, or how strongly these criteria were enforced – the author's assessment is that malnutrition status was used as the overriding basis for determining participation.

222. There is limited quantitative evidence on the effectiveness of SPLASH's targeting. A 2011 evaluation survey found that beneficiary children had levels of stunting that were 10 percent lower than the population mean and underweight levels between 4 and 10 percent higher than those found in the same districts in the 2009 Nutritional Surveillance Report.¹⁴⁰

¹³⁸ The specific criteria were as follows: in community growth monitoring, a child weighing less than the dotted line on their growth monitoring card or showing signs of malnutrition, and in health center assessments, an MUAC (middle upper-arm circumference) of less than 12.5 cm or a WHZ (weight-for-height Z-score) of 70 to 79 percent plus other signs of malnutrition.

¹³⁹ ART/TB patients were enrolled independently of their income level, the rationale being that adequate food consumption is important for treatment to be effective.

¹⁴⁰ SPLASH Evaluation Report (WFP (21011e)).

This suggests that the targeting was relatively accurate, at least in terms of finding the malnourished, although less vulnerable families were sometimes included because of measurement errors or favoritism.

223. The same survey estimated the average monthly expenditure of beneficiary households to be K.133,000 per capita, below the 2010 basic needs poverty line for urban areas (K.180,000) but above the food poverty line (K.98,000). This is not necessarily an indication of mis-targeting since malnourished children (and ART/TB patients) are known to be spread across the income spectrum. Furthermore, a separate urban food poverty line has not been estimated for 2010, which means it might have been somewhat higher than the national average. Also, food prices have also increased since the poverty line was defined.

224. *Implementation Arrangements.* The program was implemented by a combination of staff from the Ministry of Health (who did the initial identification of potential beneficiaries and staff from local NGOs (who developed the final beneficiary lists and managed the distribution of the vouchers) operating under the guidance of World Vision International. SPLASH was financed by the European Union and the WFP, which provided operational support for the design and management of the program.

225. Vouchers were distributed at health centers and were redeemable at local merchants. Initially paper vouchers were used, but the program then shifted to a system of e-voucher scratch cards, which beneficiaries could take to a range of retailers to redeem for a pre-defined list of goods.

226. *Costs and Cost-effectiveness.* Table 26 shows our estimates of the transfer per beneficiary and the cost per dollar (or kwacha) of the benefit delivered. Since the program operated only for a limited period and beneficiaries were phased in and out over time, there is a significant range in the amounts that individual households received, but the

average was about US\$80¹⁴¹ or K.400,000 per household. The cost of delivering \$1 worth of transfer was in the neighborhood of \$1.28, which is reasonable given that the program ran for only a limited period and had substantial start-up overheads.

Table 26: SPLASH: Unit Costs and Cost-effectiveness

	Households	Individuals
Number of Beneficiaries	52,846	260,291
Total Expenditure ^{a/}		US\$5.24 million + ^{a/}
Amount Transferred As Vouchers ^{b/}		Est. US\$4.52 million ^{b/}
Average Transfer Per Beneficiary	\$85.60	\$17.38
Cost US\$ per \$ of Transfer		\$1.24 / b

Source: Author's calculations based on WFP data, the MDT Operations Report for November 2009-February 2011 (WFP (2011c), the SPLASH Final Evaluation Report (WFP, 2011e), and the author's communications with WFP Zambia.

Notes: a/ Cost estimate of US\$5.24 million is not believed to include all program implementation costs.

b/ SPLASH MDT Operations Report (WFP, 2011c) (p.3) cites "Amount Paid to Retailers" of US\$4.526 million equivalent.

227. The final evaluation¹⁴² concluded that the program had a measurable effect on the food consumption of beneficiary households, as well as freeing up resources that were then spent on school fees, rent, and other foods. The following findings emerged from the evaluation:

- Beneficiaries valued the nutrition education aspect of the program.
- There were sometimes problems with the accuracy of the anthropomorphic measurements taken at the clinics because the process was delegated to lower-level staff with insufficient supervision.
- There were felt to be exclusion errors because some of the poorest families may not have used health centers or were unwilling to come forward. (Also note the program

¹⁴¹ The variance is due to the fact that some households received benefits for as many as eight months, and some for as few as four. The average was about six months.

¹⁴² Although both a baseline survey and a post-evaluation survey were conducted, they were not comparable.

was not intended to address *acute* malnutrition, for which there are other programs.)

- There were occasional incidents of people using multiple cards or multiple family members to benefit from the program, but this was not felt to be widespread.
- The voucher system generally worked well and, despite some wrinkles, was appreciated by both beneficiaries and merchants.
- Nearly 90 percent of those who actually received the vouchers were women, and this, combined with the non-fungibility of the vouchers, was felt to increase the likelihood that the transfer was used for food.
- The evaluation recommended using a mix of cash and vouchers in any future scheme, although the beneficiaries expressed some concerns regarding possible misuse of resources if the program shifted to cash.
- The use of vouchers was felt to be a major improvement over the previous practice of distributing food at health centers (which put a major burden on staff and operations).

Finally, and importantly, the program was too short, and the evaluation process insufficiently rigorous, to assess its impact on children's nutritional status.

228. Although it was launched in response to the rapid rise in food prices, and the funding was time-bound, the hope among those who developed the program was that SPLASH would form the basis of longer-term voucher scheme if the necessary funding could be found.

229. *Commentary.* SPLASH had a number of interesting features – the use of e-vouchers, the focus on malnutrition as a targeting criterion, the channeling of resources through women in households, and a focus on the urban poor. It also seems to have represented a fairly cost-effective transfer instrument.

230. The objective was not primarily to address severe malnutrition but rather to use moderate malnutrition as an indicator to select beneficiary households. Nonetheless malnutrition is a significant part of the poverty profile in Zambia, and using safety net transfers to reduce it seems to be an important objective. With suitable modifications, we would recommend continuing some version of the program, perhaps integrated with the expanding Social Cash Transfer Scheme (see below). We offer the following observations:

- If objective is to reduce child malnutrition then supplementary/therapeutic feeding should probably be added as well (as suggested in the evaluation).
- Clearly SPLASH was not sustained. Any follow-up activity would need to provide more predictable transfers and sustain support to individual households over a longer period of time.
- There needs to be a debate, and further analytical work, to ascertain whether a follow-up program should continue to use vouchers as opposed to shifting to cash payments and probably integrating it in some way with the expanding SCTS.
- Significant effort should be invested in the growth monitoring and promotion and hygiene education efforts.
- Any further program should have a strengthened targeting system and more rigorous monitoring and evaluation.

- Whether, and how much, the program should be expanded into rural areas should depend on an assessment of the capacity of health services to apply the nutrition screening criteria.
- An effort would need to be made to bring into the program those families that do not regularly use health centers or child monitoring services.

231. We have no evidence that people suffering from TB or receiving ART are poorer on average than the rest of the population, although in this instance they had the additional feature of living in urban settlements (slums) and the objective was not so much reducing poverty as increasing their food consumption to increase the effectiveness of ART/TB treatment. This is a legitimate objective, but addressing the needs of such individuals should probably be separate from an effort to attack child malnutrition. If ART/TB patients are to be included in a continuing transfer program, then rigorous poverty status screening should be applied.

232. Finally, SPLASH is a classic example of the drawbacks of discrete, donor-financed programs. An apparently successful program was geared up, only to close down after two years. Not only were the benefits not sustained, but complex systems were developed and line staff had to learn new procedures, only for the systems to be abandoned and the staff move on to other programs and activities.

SPLASH Follow-up Proposal: Food Security for Vulnerable Groups

233. The WFP had proposed a vulnerable group feeding program as a follow-up to SPLASH. The proposed program would provide in-kind food transfers in rural areas and vouchers in near-urban areas to food-insecure households with a member who was receiving ART or TB treatment or with pregnant and lactating mothers and children under

24 who were attending mother-and-child health and nutrition centers (MCHNs).¹⁴³ In addition malnourished children would receive a micronutrient-fortified food ration. The total costs of the program were projected to be about US\$3 million annually,¹⁴⁴ and it would aim to cover about 100,000 people. The proposal is currently being re-worked as part of a larger proposed integrated MCH and child nutrition program that is being formulated by the Ministry of Community Development, Maternal and Child Health, in conjunction with the UN, the EU, and the WFP. We recommend that the successful elements of SPLASH be built into a broader effort to link early childhood nutrition with the ongoing Social Cash Transfer Scheme (discussed below).

C. Cash Transfer Schemes

Social Cash Transfer Scheme

234. The objective of the Social Cash Transfer Scheme (SCTS) is to help the most destitute and incapacitated households and poor households with children to meet their basic needs and to break the intergenerational cycle of poverty.¹⁴⁵ The government has been implementing four versions of the scheme differentiated by the targeting model used: (i) a cash transfer targeted to the 10 percent most destitute and incapacitated households; (ii) a Child Grant program for all families with children under the age of 5 and/or disabled children up to the age of 14 in districts with a high incidence of poverty and under-5 mortality; (iii) a cash transfer targeted to vulnerable households identified by a multiple categorical model; and (iv) an old age pension scheme for all people over the age of 60

¹⁴³ Beneficiary households in rural areas were to receive 25 kilograms of maize monthly for eight months or in urban areas, a voucher with a value of about US\$25 per month (roughly equivalent to the value of the food package). Transfers would be dependent on continuing to receive treatment (for ART/TB patients) or attending the MCNN centers for mothers and children.

¹⁴⁴ Based on \$14.2 million (food plus overheads) derived from Annex I-A, WFP Country Program, 2011-15 (WFP, 2010). Beneficiary numbers are unclear. SPLASH program monitoring data show 207,000 beneficiaries for the ART treatment and 316,000 for the MCHNs, but these appear to be cumulative totals. It is not clear for how long benefits were to be provided to a particular household.

¹⁴⁵ MCDMCH (2011a).

whether poor or not. All of these versions are currently operating on a small scale in a limited number of districts.

235. Implementation of the program started in 2003 with the introduction in the Kalomo District of the 10 percent targeted transfer on a pilot basis. This was expanded into three additional pilot districts (Kazungula, Monze, and Chipata) between 2005 and 2007. The way in which these schemes have been implemented has varied, thus generating useful information on the feasibility, costs and benefits, and impact of different modes of implementation. For example, in the Kazungula district pilot, higher basic transfers and additional benefits for each child were tested. Meanwhile in the Chipata district, the scheme, operating for the first time in an urban setting, experimented with providing a base benefit and a bonus conditional on school attendance, with higher benefits given for children enrolled in secondary school. In the pilot in the Monze district, households were required to agree to send their children over the age of 5 to school and to maintain a health card for their children under the age of 5, but in the end this condition was not implemented.¹⁴⁶

236. *Targeting.* Based on the lessons learned from these pilots, in 2009 the government decided to introduce a national Social Cash Transfer Scheme with uniform benefits per household regardless of the number of individuals that they contain and only a small bonus for households with children. The only difference among the elements is the targeting mechanism used to select eligible households (see Annex 2 for a description of targeting mechanisms). There are now essentially two main variants of the scheme: (i) a universal program of transfers to all households with children in districts with very high poverty rates; and (ii) a multi-categorical targeting model that uses community-based targeting through Community Welfare Assistance Committees to direct benefits to elderly-or female-headed households that contain orphans, households containing a disabled member, and special cases that are critically vulnerable but do not fall in the above categories. A comprehensive

¹⁴⁶ MCDSS and GTZ (2007).

targeting effectiveness evaluation is currently ongoing (results are expected by July 2013), and thereafter a decision will be made on what model(s) to follow for further expansion.

237. *Implementation Arrangements.* The schemes are administered by the MCDMCH.¹⁴⁷ The ministry relies on the District Social Welfare offices, District Welfare Assistance Committees, Community Welfare Assistance Committees (CWACs), and pay point managers to select beneficiaries, pay benefits, and manage household changes. The PWAS is severely understaffed, hence the reliance on community committees to implement the schemes. All of these committees at the community, ward, and district levels consist of volunteers. The MCDMHC was assisted in the Kalomo and Monze districts by the German Agency for Technical Cooperation until 2007 and in the other districts by CARE until the end of 2008. Since then, the ministry has taken on full responsibility for the scheme, although it still receives support from cooperating partners (mainly the DfID and UNICEF) through a joint financing arrangement to strengthen the monitoring, evaluation, and capacity building.

238. As of 2011, the schemes covered a total of about 28,660 beneficiary households living in the poorest eight districts of the country (out of a total of 78). This corresponds to about 131,000 individuals or less than 1 percent of the total population. The government has developed a plan to scale up coverage in the existing districts and to include seven new districts, enrolling 99,000 households in a total of 15 districts by 2015. This would correspond to approximately 500,000 people or less than 4 percent of the total population. Assuming perfect targeting, on this basis the cash transfer scheme could potentially cover about 10 percent of the extreme poor (Table 27).

¹⁴⁷ There are plans for the old age pension scheme to be transferred to the Ministry of Labor and Social Security (MLSS).

Table 27: Cash Transfer Schemes: Number of Beneficiaries and Benefit Levels, 2011-2015

Type of transfer	Year of inception	Benefit level per beneficiary per month ^{a/}		Number of Beneficiaries ^{b/}		Estimated Coverage 2015	
		ZM Kwacha	US\$	2011	planned 2015 ^{c/}	% of total population	% of extreme poor
10% Incapacitated HHs	2003	60,000	12	12,109	26,121	1.0	1.7
Old age pension scheme	2007	50,000	10	5,758	5,758	0.2	0.6
Child grant	2010	60,000	12	10,793	41,000	1.6	4.0
Multiple categorical model	2011	60,000	12	0	26,121	1.0	2.6
Total				28,660	99,000	3.8	9.7

Notes: a/Benefit level is ZMK50,000 per month for households without children. A household with children that includes at least one member who is disabled receives ZMK120,000 per month, and a household without children in which the head is disabled receives ZMK200,000 per month.

b/ Each beneficiary represents a household, whereas for the old age pension scheme the beneficiary is the individual and more than one individual can come from one household.

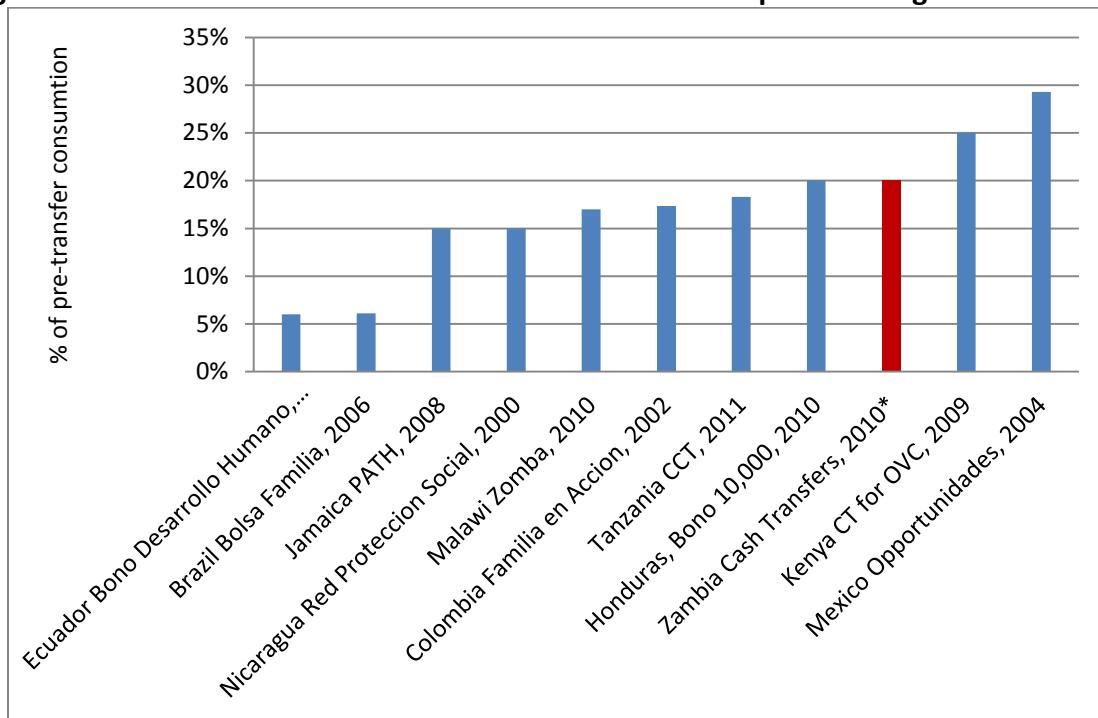
c/ Estimated coverage for 2015 assumes equal shares between 10 percent incapacitated model and the multiple categorical model

239. *Value of Benefits.* The SCTS provides a benefit of ZMK60,000 (the equivalent of US\$12) per month to households with children and ZMK50,000 (the equivalent of US\$10) to households without children paid every two months. The transfer is based on the annual average price of a 50 kilogram bag of maize, which would allow a family of six to consume at least a second meal a day. In households with at least one member with a disability, the recipient receives double that amount. The value of the transfer is adjusted for inflation by 10 percent every year. Recipients collect their payments every two months from pay point managers (who are government employees) located in schools and health centers.

240. Overall, the benefit level represents a relatively small proportion of the consumption of the poor – about 14 percent of the cost of the basic food basket and 20 percent of the consumption of the poorest quintile. Although receiving the transfer cannot lift households up to the extreme poverty line, it contributes modestly to reducing the gap, and households have a strong incentive not to rely solely on the transfer.

241. The benefit level is in line with those that prevail in similar cash transfer programs in Africa and Latin America. These benefits range from 29 percent of pre-transfer beneficiary consumption in Mexico to 17 percent in Malawi's Zomba program or 18 percent in Tanzania's conditional cash transfer program (Figure 15). Although there is no rule about the optimal benefit level, the most successful programs in Latin America provide at least 20 percent of recipients' mean household consumption.¹⁴⁸

Figure 15: Cash Transfers as a Share of Pre-transfer Consumption among All Beneficiaries



Sources: Fiszbein et al. (2009) and Garcia and Moore (2012). Author's own estimates for Zambia based on the 2010 LCMS.

Note: Zambia and Kenya measure the percentage of the transfer relative to the consumption of those in the poorest quintile.

242. *Commentary.* The Social Cash Transfer Scheme is potentially cost-effective because small payments can substantially and immediately reduce the consumption deficit of the beneficiaries. An evaluation of the Kalomo pilot found that the cash transfers had improved health, nutrition, education, asset ownership, and local economic activity, but it did not include a control group nor did it control for important factors in program districts. A more

¹⁴⁸ Fiszbein et al (2009) and Garcia and Moore (2012).

recent evaluation of the pilot in the Monze district using more rigorous methodology¹⁴⁹ suggested that the program increases economic production and investment in education but does not necessarily improve nutrition and health outcomes. The evaluation also found interesting results on secondary outcomes related to expectations of future quality of life and preferences for delayed gratification that have never been tested before in a cash transfer evaluation.¹⁵⁰ These results as reported by Seidenfeld and Handa (2011a) are presented in Annex 3. At the time of this report, an impact evaluation of the Child Grant Program is ongoing.

243. A very small average transfer of K.60,000 (\$12 per month per household), which is the equivalent of about 20 percent of the consumption of the bottom quintile, could reduce the poverty gap by 16 percent and the severity of poverty by 30 percent (Table 28). If the transfer were to be more generous, then the contribution to reducing both the gap and poverty incidence could be much larger.

Table 28: Simulated Change in Poverty Incidence, Gap, and Severity after Cash Transfers

Poverty indicator	Actual, 2010	After receiving K60,000/month	Percentage Change
Extreme Poverty Headcount	39.29	39.27	-0.05
Extreme Poverty Gap	14.38	12.12	-15.67
Extreme Poverty Severity	7.08	4.97	-29.84

Source: World Bank author's estimate based on the 2010 LCMS.

244. Indicatively, it might cost about US\$41 million per annum to expand the Social Cash Transfer Scheme in Zambia to cover the 10 percent poorest households (Table 29). Overall, this figure corresponds to 0.23 percent of GDP. If enough resources were available, then coverage could be expanded to cover the 20 percent poorest at a total cost of about 0.45 percent of GDP. These estimates assume administrative costs in the range of 15 percent,

¹⁴⁹ The Monze evaluation used a quasi-experimental design with random assignment at the community level and selection at the household level requiring a matched comparison group.

¹⁵⁰ Seidenfeld and Handa (2011a).

which is the sort of level that should be achievable given experience elsewhere. (See Annex 4 for a discussion of administrative costs.)

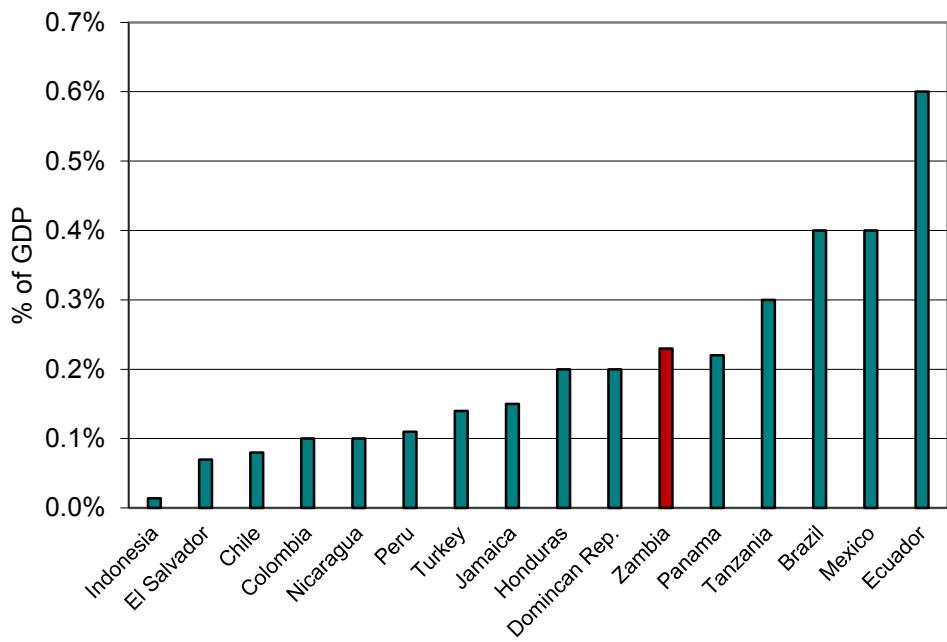
Table 29: Cost of Social Cash Transfers as a Share of GDP under Alternative Coverage Scenarios

Coverage	% of total population	Number of beneficiary households	Total Cost* (K. billion)	Total cost (US\$ million)	Cost as % of GDP
Actual coverage 2011	1%	28,660	42	8	0.05
Planned coverage 2015	4%	99,000	79	16	0.09
Gradual expansion:			-	-	-
10% poorest	10%	260,920	207	41	0.23
20% poorest	20%	521,840	414	83	0.45
30% poorest	30%	782,760	621	124	0.68
40% poorest	40%	1,043,680	828	166	0.91

Note: * It is assumed that 75 percent of total recipients receive the full benefit (K60,000 per month) and that 25 percent receive K50,000, while administrative costs account for 15 percent of total costs.

245. The cost of covering the poorest 10 percent of the population places the Social Cash Transfer Scheme in Zambia in the middle range of similar programs worldwide (Figure 16). The cost of the program – 0.23 percent of GDP – is similar to the cost of the cash transfer programs in Panama and the Dominican Republic but lower than those in Tanzania, Brazil, and Mexico.

Figure 16: Annual Cost of the Cash Transfers Programs as a Percentage of GDP



Source: The Zambia estimate is based on coverage of poorest 10 percent of the population. For other countries, see Garcia and Moore (2012).

246. The positive message is that it could take less than 1 percent of GDP to cover all of the extreme poor in Zambia with a cash transfer. This cost is a lower bound estimate that would have to take into account the inherent leakage associated with targeted transfers. However, these leakages would not represent more than 30 percent if geographical targeting focuses on constituencies and wards with an incidence of extreme poverty above 70 percent and if potential recipients are subject to a further screening by the CWACs.

247. Scaling up the Social Cash Transfers Scheme raises the question of which model of intervention should be chosen and whether the MCDMCH has sufficient administrative capacity to manage the larger program.

248. A national cash transfer scheme would have a greater impact if it were combined with other basic services, including nutrition, education, or preventive health care interventions. Several countries in Latin America and more recently in Africa have

developed these integrated models, and impact evaluations have shown that they have contributed to increased enrollment and increased use of preventive health care services.

249. More recently, cash transfers programs have tried to link benefits to nutrition interventions to include *inter alia* growth monitoring, regular health visits by pregnant women and children under the age of 5, the provision of micronutrients, and nutrition education. Peru, a country confronted with similar staggering level of chronic malnutrition has strengthened their cash transfer program in order to improve its functioning and reach better nutrition outcomes (see Annex 6). In Senegal, the government has scaled up the Nutrition Enhancement Program and provided cash transfers to vulnerable mothers and children under five to reduce the risk of nutrition insecurity of vulnerable population following the increase in the food prices.¹⁵¹ Given the high level of chronic under-nutrition in Zambia, it makes sense to build synergies between the cash transfers and nutrition interventions. Zambia is in the fortunate position of having developed a five-year (2011-2015) National Nutrition Strategic Plan and a 1000-day action plan that envisages an important role for safety nets to ensure food security. This link could be further strengthened if the cash transfer could be used as an incentive to ensure that extremely poor families with pregnant and lactating women and infants have access to a set of interventions that were shown to be very effective to prevent and treat under-nutrition: (i) the promotion of good nutritional practices (breastfeeding, complementary feeding after six-months, and improved hygiene); (ii) the provision of micronutrients (sprinkles, therapeutic zinc complements for diarrhea treatment, de-worming drugs, and iron-folic acid supplements for pregnant women); and (iii) therapeutic feeding for severely malnourished children with special ready-to-use therapeutic foods

250. These links can be made only if the services in question are available, if beneficiaries can access them, and if the program has the administrative capacity to monitor the use of

¹⁵¹ World Bank (2009b).

services and to address low usage. With regard to administrative capacity, the MCDMCH's capacity to manage and monitor the program requires strengthening in several areas.

251. The targeting and enrollment of beneficiaries is the most challenging administrative task. The benefits of targeting the 10 percent most *destitute* households would have to be carefully weighed against the capacity required to implement such a model on a larger scale. While this community-based targeting works well in small communities, it may prove inoperable in larger communities where local knowledge is not as deep and where it may be more difficult to form, train, and hold accountable the necessary volunteer groups. Thus, it may be necessary to consider a simplified model of targeting such as geographic targeting combined with categorical or community selection. Once a common targeting mechanism has been chosen, it will be important to develop a unique registry of beneficiaries that can enable various programs to identify their target groups as well as linking beneficiaries to other interventions for higher impact. Having a common targeting mechanism and a single registry of beneficiaries that apply to all safety net programs would reduce administrative costs and increase coordination.

252. As for a payment mechanism, relying on teachers and nurses to make payments may be unsustainable in the long term. In many countries in Africa, governments have been increasingly using modern electronic ways of paying cash transfers to the poor. For example, Kenya has introduced the agent banking model in its Hunger Safety Net Program, and it is also beginning to be used in parts of its CT-OVC program (Box 5).¹⁵²

¹⁵² Kenya Ministry of Planning, National Development, and Vision 2030 (2012), p. 57.

Box 5: Kenya Agency Banking Model for the Payment of Benefits

In this model, banks are authorized to appoint agents to provide limited banking services such as deposit-taking and withdrawal application. Banking agents are usually equipped with a combination of POSs, card readers, mobile telephones, and bar-code scanners for bill payment transactions. They may also have personal identification number (PIN) pads and personal computers (PCs) that connect with the bank's server using a personal dial-up or other data connection. Clients of the agent use a magnetic stripe card or their mobile phone to access their bank account or e-wallet respectively. Customers are typically identified by a PIN but can also be identified using biometric information such as fingerprints or photographs. Banking agents verify, authorize, and settle disputes over transactions as well as synchronizing and updating the transactions remotely with the appointing bank's central database

Source: Kenya Ministry of Planning, National Development and Vision 2030 (2012) p. 57.

253. It would also be advisable to invest in developing an integrated management information system (MIS) to monitor inputs and results in all key operations from the identification and enrollment of beneficiaries to the making of payments and the periodic recertification of recipients' eligibility. Accurate MIS data would make it easy to spot any bottlenecks that might need to be further investigated using other types of evaluations such as spot checks, process evaluations, or internal audits.

Public Welfare Assistance Scheme

254. The Public Welfare Assistance Scheme (PWAS), run by the Ministry of Community Development, provides *ad hoc* support to the most destitute. In theory the program aims to reach the 2 percent most destitute; in fact coverage is limited by the funding made available each year but is always far below demand. In 2011 K.8 billion was allocated (US\$1.8 million) and over the past two years the program has reached an average of 59,000 beneficiaries per annum.¹⁵³

¹⁵³ Based on 42,228 beneficiaries in 2010 and 75,496 in 2011 (MCDMCH data). An average is more meaningful than individual yearly figures because coverage varies so much from year to year.

255. Targeting is done by CWACs who identify the most vulnerable. The program provides support in the form of clothes, maize meal, paying school fees, or health assistance such as help with medical costs or orthopedic devices. While there seems little doubt that the program reaches the very poor, the drawbacks are that it is *ad hoc* and often only provides one-off assistance to an individual who in reality probably needs sustained assistance. The intention is to combine, or at least coordinate, it with the Social Cash Transfer Scheme over time.

Proposed Disability Grant Scheme

256. The government has prepared a proposal for a Disability Grant scheme that would provide a transfer of K.100,000 per month to selected people with disabilities.¹⁵⁴ The potential drawbacks are that there is a vast range of degrees of disability in the population and that not all of the disabled are poor. The proposal effectively addresses these concerns by proposing that: (i) disability be subject to medical certification in accordance with an established protocol that exists in Zambia; and (ii) that the program uses the same community-based targeting mechanism that the existing social cash transfer uses to identify beneficiaries who live in particularly poor households. It is estimated by the authors of the proposal that this approach would result in restricting transfers to about 20 percent of the disabled in the country, at an annual cost of about K.101 billion (US\$20 million). This is still a relatively large amount compared to other programs that target the poor, and it is suggested that while the proposal has merit, it would most cost-effectively be included as one element of the roll-out of the expanded SCTS nationwide, using severe disability as one of the criteria for determining eligibility.

¹⁵⁴ MCDSS (2011b).

Old Age Pensions

257. Formal pensions cover only a small proportion of the population (an estimated 10 percent of those aged 55 and over). They benefit only public sector and formal wage sector employees, who tend to be among the better off, and are thus of limited relevance as a poverty-reducing transfer. Nonetheless they represent a significant share of transfer spending at an estimated K.359 billion (US\$78 million equivalent) in the 2011 Pension Fund and Arrears budget.¹⁵⁵

258. Total coverage of pensions is extremely low. Less than 0.2 percent of the total population reported receiving pension income of any kind in the 2010 LCMS and less than 0.1 percent among the poorest 40 percent of the population (see Annex Figure 1.1).

259. A pilot social pension scheme has been run for the past four years as part of the Social Cash Transfer Scheme. It covers only 5,800 people¹⁵⁶ in part of the Katete district. The total cost is not known but is estimated to be about \$0.7 million per annum.¹⁵⁷ The pension pays K60,000 per month (US\$12.50) to all people aged 60 and older. A preliminary qualitative evaluation¹⁵⁸ suggested that the program is yielding benefits in terms of both consumption and limited increases in investment. It noted that the program does not particularly benefit the poor as the elderly tend to be spread across all of the income deciles, but this was not considered a major issue in this district where households tend to be uniformly poor. The program is implemented by the Ministry of Labor with implementation support from CARE. The government, with assistance from the ILO, is currently costing options for providing a universal old age cash pension nationwide.

¹⁵⁵ Based on a table “Releases to the Social Protection Function” provided to the World Bank team by the Ministry of Finance.

¹⁵⁶ As of December 2011, as reported in MCDMCH (2012) .

¹⁵⁷ Based on 4,180 beneficiaries, at US\$150 per annum and assuming administrative costs of 10 percent.

¹⁵⁸ Croome (2008).

260. How effective would an old age pension be in reaching the poor? Our simulations suggest that it would cost about US\$50 million (K.250 billion) per year to provide a universal pension of K.60,000 per month (US\$12, the amount of the current Katete pension) to everyone over the age of 65. A program with a larger monthly transfer and a lower cut-off point (the age of 60) could cost as much as US\$196 million per annum. Advocates of social pensions make the case that many elderly are supporting orphans and/or live in particularly poor households so providing a universal pension would be one way of supporting the most vulnerable. A study in 2003 found that pensions received by women in South Africa had a large impact on the anthropometric status (weight for height and height for age) of girls in the same households as the recipients but little effect on that of boys.¹⁵⁹ No similar effect was found for pensions received by men. This suggests that the efficiency of public transfer programs may depend on the gender of the recipient. In Zambia, as noted in Chapter 2, only 2.3 percent of the population is above the age of 65, and rough calculations suggest that such a program would only reach about 12 percent of the extreme poor (Table 30).

Table 30: Approximate Costs and Coverage of a Universal Pension

Cut-Off Age	No. of People ^{a/}	Approx. No. Extreme Poor ^{b/}	Est. Total Extreme Poor Reached ^{c/}	Approx. % of Extreme Poor Reached ^{d/}	Approximate Annual Cost (2012) ^{e/}	Approx. Cost of Transfers going to Non-poor ^{f/}
60+	458,000	198,300	990,000	18.0%	\$ 79	\$ 26
65+	297,000	128,600	643,000	11.7%	\$ 50	\$ 17
70+	190,000	81,700	409,000	7.4%	\$ 30	\$ 10

Source: Author's calculations, based on LCMS, CSO and ILO data.

Notes: a/ from ILO estimations.

b/ Based roughly on 43 percent of elderly individuals living in households in the bottom four consumption deciles based on 2010 LCMS data.

c/ Based roughly on five people per household.

d/ Based on 5.5 million extreme poor.

e/ From ILO simulations.

f/ Based on 33 percent of the elderly.

¹⁵⁹ Duflo (2003).

261. More refined data will result in slightly different estimates,¹⁶⁰ but the fundamental story remains the same: a universal pension will undoubtedly have a significant impact on the poor households that receive it, but as a way of reaching the poorest it is not very cost-effective. The main reasons for this are: (i) only a small proportion of households have a member over the age of 65; (ii) the elderly are spread across all of the income groups; and (iii) extreme poverty rates, while slightly higher among the very old, are not very different than among the population as a whole. (Even if the eligibility age were reduced to 60, our estimates still show that less than 20 percent of the extreme poor would benefit, and the costs would increase dramatically – to at least US\$79 million annually.) Furthermore experience in other countries has shown that old age pensions are not necessarily even a good way of assisting the elderly who support orphans, as they have potentially high degrees of leakage.¹⁶¹

D. Public Works and Employment-based Programs

262. Zambia is unusual among developing countries in not having any large-scale public works transfer programs for the poor. Such programs can be extremely useful in targeting the able-bodied extreme poor because, provided the wage rate is set low enough, they can be self-targeted (see Box 6). Their other advantages are that they can create productive assets and that they tend to be politically and socially acceptable because they are not perceived as pure handouts.

¹⁶⁰ For example, to the extent that people aged 70 and over are even poorer than those aged 65 and older, the program would reach slightly more of the extreme poor, and excluding people who receive a state or private sector pension (as Lesotho does) would reduce the expected leakage to non-poor beneficiaries.

¹⁶¹ For example, Duflo (2003) found that pensions received by women in South Africa had a significant impact on the nutritional status of their grandchildren, but this was not observed for male pensioners. Moreover, only 46 percent of pensioners lived with their grandchildren, and the impact was only observed if the child was a girl, so about 88.5 percent of pensions were having no effect on grandchildren's nutrition, and this does not even take into account the proportion of old age pensioners who are not poor.

PUSH (*Peri-Urban Community Self-Help*)

263. PUSH is a public works scheme that provides employment to the poor in both urban and rural areas. It has been reduced in scale in recent years but is reviewed here because it has been one of the few employment-based transfer programs over the past decade in Zambia and may yield important lessons for how to reach the poor through self-targeting, especially in urban areas.

264. PUSH has been operating since 1991. Introduced originally in response to drought and unemployment resulting from the downsizing of mines, it has since evolved into a combination of employment, training, and income-generating programs aimed at raising the incomes of the poorest. Our assessment focuses on the employment components of the program to see what lessons might be learned that could be applied to larger-scale public works transfers in Zambia. PUSH currently operates about equally in urban and rural areas – typically working on road maintenance and drainage works in urban areas and environmentally related works in rural areas.

265. Program staff generally choose the districts in which PUSH projects are to operate on the basis of their vulnerability as assessed in the annual Vulnerability Assessment produced by the Zambia Vulnerability Assessment Committee (ZVAC), and then they attempt to identify poor areas within each district. The targeting criteria vary from operation to operation depending on the extent and kind of vulnerability that prevails in the areas concerned. Typically they involve some form of consultation with the communities in question as well as wealth rankings based on households' income levels and assets, although these are not generally rigorously measured.

266. Beneficiaries may be employed for anywhere from 3 to 24 months. The duration of employment depends on: (i) the type of infrastructure involved; (ii) the resources available; and (iii) the number of vulnerable households in the area. Typically PUSH will operate

continuously in a community for about two years, providing transfer recipients with skills development training in other income-generating opportunities (such as poultry-raising or pig farming). The public works employment is supposed to be concentrated in the dry season, but this is not always possible because of the requirements of the tasks (for example, emergency drainage works after flooding in the rainy season). Although there are no consolidated records, the average household is estimated to get about four months worth of work from the program. About 60 percent of beneficiaries are women.

267. PUSH generally employs people for a four-hour work day. The program is required to pay the legislated minimum wage of K.20,000 (US\$4) per day but in reality pays only K.10,000 (about US\$2) for the effective half-day of work. This compares to a reported daily wage rate for unskilled agriculture labor of about K.6, 000 in rural areas.¹⁶²

268. The scale of operations has gone up and down over time depending on funding (which has typically come from the Ministry of Local Government, the Ministry of Community Development, or the WFP). The program has operated at a peak of about 20,000 people employed at one time, implying about 100,000 beneficiaries or about 2 percent of the extreme poor. Beneficiaries are paid in either cash or food depending on the nature of the operation and the funding source.

269. As an example, in 2011, PUSH employed about 17,500 people on urban road works at a total cost of about K.7 billion (US\$1.2 million equivalent). Of this amount, about 40 percent was accounted for by wages, representing a transfer of about K.260,000 (US\$52) per participating household.

¹⁶² Verbal communication with staff of the FSRP, 2012.

Table 31: PUSH Public Works Employment, Cost Composition, 2011

Costs	Costs (Kwacha millions)
Materials and Tools	7,235 (59%)
Admin	516 (4%)
Labor	4,560 (37%)
Total	12,311
No. of People Employed	17,533
Estimated Transfer/Beneficiary	K.260,081 (US\$52.02)
Estimated Cost/Beneficiary	K.702,162 (US\$140.43)
Cost per K (or \$) Transferred	2.70 (US\$2.70)

Source: Author's calculations based on administrative data from PUSH.

270. The level of 40 percent of all expenditure going to wages in this sample is typical of other programs in the region but is low relative to the best results achieved elsewhere in the world and results in a fairly high cost per unit of transfer.

271. The ideal target is to achieve a mix of 50 percent of total costs being spent on wages, 30 percent on materials, 15 percent on implementation management, and 5 percent on informing community members about the program. However, by PUSH staff's own admission, its operational structure is quite expensive, mainly because of the high costs of the ancillary income-generation and community mobilization elements.

272. There is no assessment of the consumption levels of beneficiaries, so we do not know to what extent the program is reaching the extreme poor as opposed to the poor in general. Given that the program pays the relatively high legislated minimum wage rate, it would not be surprising if it is not reaching the poorest, but the geographical targeting and community participation in the election probably result in the selection of the able-bodied medium-poor.

Other Public Works

273. Public works transfer schemes have also been used in the past to distribute emergency relief (for example, in the form of food-for-work or food-for-assets programs

that operate in times of drought). They seem to have a mixed reputation in Zambia, in part because there have been doubts about the quality of the infrastructure built and in part because they have reportedly resulted in people not wanting to contribute free labor to community works (such as canal maintenance) subsequently after having been paid for such work previously. However, these reports are anecdotal, and there is no documentation on these types of programs.

274. There are also many smaller, shorter-duration public works programs operated by NGOs (CARE's agricultural inputs for assets program is an example), but they tend to be short-term and implemented as part of a humanitarian response to shocks.

Greater Rural Road Maintenance and Conservation Works - An Opportunity

275. Zambia is facing a tremendous opportunity to increase its economic assets and provide a large-scale transfer at the same time without the high overheads traditionally associated with public works schemes.

276. Because of its large area and sparse population, Zambia has one of the largest road networks per capita in Africa. As in many countries, the road network suffers severely from inadequate maintenance. Despite extremely high levels of spending on roads in recent years (rising to an estimated US\$800 million equivalent in 2011), most of these resources are allocated to high-cost sealing and new road construction, while the maintenance of the existing network is severely underfunded.¹⁶³

277. The pressure to pave roads is effectively crowding out maintenance and rehabilitation expenditure. A small proportion of Zambians are benefitting from a few

¹⁶³ Raballand and Whitworth (2012).

upgraded roads at the expense of the majority of the rural population who are dependent upon unpaved roads that continue to disintegrate.

278. It is estimated, for example, that Zambia should be spending about US\$120 million per annum to maintain unpaved district, urban, and feeder roads.¹⁶⁴ Many of these roads are located in poor rural areas or in close proximity to urban slums, and if 50 percent of this amount were to be spent on labor, it would provide the equivalent of the amount currently provided under the current Social Cash Transfer Scheme and would cover about 350,000 households (about 1.5 million people).¹⁶⁵

279. Transport economics consistently show that the highest economic returns accrue to the maintenance of existing roads. Therefore, this represents an extremely good investment while providing predictable, annual income opportunities to the able-bodied poor.

280. Another area that could yield high returns and provide transfers to large numbers of the poor is reforestation and rural conservation works. Tree-planting campaigns, soil conservation and drainage management works all increase long-term productivity and are all labor-intensive. The Productive Safety Net Program in Ethiopia has produced sustained increases in agricultural output in the Tigray region as a result of land management works that were primarily intended to provide transfer payments to the very poor.

281. Two of the distinct advantages of the approaches that concentrate on maintenance and environmental works are: (i) they do not require the development and management of complex one-off capital projects to run the public employment scheme and (ii) they do not require the establishment of a new administrative entity but can be generally supervised by

¹⁶⁴ Raballand and Whitworth (2012), Table 4, p.7.

¹⁶⁵ Based very roughly on an average SCTS amount of US\$165 equivalent per household per annum (12 x K.65,000 per month).

existing district staff (with some strengthening and support for the wage/poverty-targeted aspects of the program).

282. To achieve the intended poverty-targeting effect, the wages paid in these approaches have to be kept below the market wage rate for agricultural labor to ensure that only the very poor will want to apply. This can be achieved by adjusting the mix of piecework and the number of hours and days worked. However, given the very large numbers of poor who exist and the premium that people attach to getting hold of cash in rural areas, it is possible that the available jobs will be taken by people who are not among the extreme poor. Therefore, it may be necessary to either impose some other level of targeting (for example, community validation of very poor families as is done in Ethiopia and Tanzania) or to expand coverage to allow everyone in a given area to participate if they want (as is done in India where an employment guarantee was given – see Box 6). This approach could work well if the program were implemented only in areas with very high poverty rates.

283. Finally, attention needs to be paid to seasonality in designing an employment-based program. Farmers must not be attracted away from their fields during planting or weeding times (which unfortunately occur in the lean season when they most need food or money). Possible solutions include carefully staggering employment opportunities or perhaps paying recipients in vouchers that are redeemable for cash or food in the lean season for work done earlier in the year.

Box 6: Some Experiences Worldwide with Public Works Programs

It is possible to reach large numbers of the poor with transfers using public employment programs in a way that is not currently done in Zambia.

In India, the National Rural Employment Guarantee Program provides a guarantee of 100 days of work per household, on demand, to all rural families. It pays a minimum local agricultural wage rate and is completely self-targeting on the basis of the low wage rate.

In Ethiopia, the Productive Safety Net Program (PSNP) employs some 1.2 million people annually for an average of 150 days each at a cost of about US\$280 million per annum. It uses a combination of self-targeting through the wage rate, geographical targeting of poor areas, and community selection of beneficiaries (because there is excess demand for employment). The Ethiopia program has had some success in greatly increasing the long-term productivity of some areas by improving soil and water management as well as through the more usual road construction projects.

While there are challenges (and costs) in mounting a program of this scale, even countries with less ambitious programs (such as Malawi and Zimbabwe) have managed to achieve coverage of about 300,000 to 400,000 people per year.

Argentina's *Trabajar* program achieved significant labor-intensity, with about 60 percent of expenditure going on wages to the poor, as have programs in Zambia (PUSH), Madagascar, and India. However, in the Tanzanian public work program, only between 38 percent and 47 percent of spending currently goes in wages. The LIPW program in Botswana, which focuses mostly on the maintenance of dirt roads, manages to spend 63 to 78 percent of total expenditures on wages. Shifting to road maintenance has a number of other benefits – it does not require the formulation of separate projects to employ the poor, it can be administered through existing systems, and can make use of money that is already being allocated within the budget.

E. Programs Supporting Orphans and Vulnerable Children

STEPS OVC

284. STEPS/OVC (Sustainability through Economic Strengthening, Prevention, and Support for Orphans and Vulnerable Children, Youth, and other Vulnerable Populations Program) is one of several initiatives designed to cater to orphans and vulnerable children and people living with HIV (PLHIV). Its goal is to strengthen the capacity of Zambian communities to provide sustainable HIV prevention, care, and support services. It is supported by a three-year project funded by USAID that has three strategic objectives:

1. Ensuring that individuals and households affected by and vulnerable to HIV/AIDS have access to effective, gender-sensitive, high-quality HIV prevention, care, and support.
2. Strengthening the continuum of effective, efficient, and sustainable HIV prevention, care, and support.
3. Increasing the efficiency, sustainability, and Zambian leadership of HIV/AIDS-related services, including by increasing the involvement of the private sector.

285. The program provides OVCs with health care, education and training, shelter, and other forms of support. It is not primarily a transfer program but is intended to strengthen and support OVCs and people living with AIDS generally. STEPS/OVC previously operated a cash transfer scheme, but this could not be sustained because of resource constraints. It now concentrates instead on the economic strengthening of the households through, for example, savings groups and income-generating activities.

286. The STEPS OVC program supports orphans and vulnerable children and adults and children living with HIV in all 73 districts of Zambia. Poverty is not a specific criterion. Potential beneficiaries are identified by trained volunteer caregivers and are then enrolled

in a national registry if they are willing to be included. This registry constitutes the largest database of beneficiaries in Zambia, and it has the potential to be used by other programs to identify their target population of vulnerable people.

287. The program is implemented by a coalition of national and international NGOs¹⁶⁶ in collaboration with the Ministry of Health, the National AIDS Council, the Ministry of Sport and Youth, and the Ministry of Community Development, Mother and Child Health. About 245 NGOs, faith-based organizations (FBOs), churches, and community-based organizations (CBOs) provide the program's services at the community level. The program provides them with support in the form of capacity building, training, and funding. In addition, the program works with private companies to attract resources. The key figures in the program's implementation are the more than 17,500 voluntary caregivers who deliver comprehensive services to beneficiary households, more than half of whom have been retained from prior programs. About 18 percent of these caregivers are registered as community health workers, and 66 percent are in some way associated with health facilities as part of an effort to ensure that the provision of services will continue after past the program ends.

288. STEPS OVC aims to cover 300,000 orphans and vulnerable children and improve the quality of life of 80,000 adults and children living with HIV (PLHIW) over a period of three years. At the end of September 2011, almost 164,000 adults and orphans and vulnerable children or 42 percent of its coverage target were provided with at least one care service.

289. The program is supported by three-year funding of US\$20 million from the President's Emergency Fund for AIDS Relief (PEPFAR) at USAID. Financing and implementation started in July 2010, and the management of the program is expected to be fully handed over to local organizations and the Government of Zambia by the end of project in July 2013.

¹⁶⁶ Africare, CARE International, Catholic Relief Services, Expanded Church response, the Salvation Army, World Vision International, and Futures Group.

290. STEPS OVC has developed effective, evidence-based strategies for helping people with HIV/AIDS in all intervention areas. It has registered and served a large number of beneficiaries in a short period of time. The program has a good monitoring system that tracks performance indicators against targets. No evaluation has been carried out to measure the impact of the interventions on program participants, but a baseline household-based survey was conducted to assess the before and after effects of the program on the well-being of OVC and PLHIV. From this, it is apparent that the program is fairly well targeted to vulnerable households. It showed that 32.6 percent of OVC had gone 24 hours without eating because there was no food, 58 percent had gone to sleep hungry at least once in the previous four weeks, and 86.5 percent were taking medication to treat HIV. The survey also demonstrated that misconceptions and myths about HIV are still prevalent, hence the program's emphasis on reducing the stigma associated with HIV/AIDS.

291. USAID has been a leader in promoting and supporting community mobilization and capacity building as a fundamental response to HIV/AIDS in Zambia, but it has funded this approach for only relatively short periods, which has put the sustainability of the program's initial activities in doubt. A previous and similar community mobilization effort, Strengthening Community Partnerships for the Empowerment of Orphans and Vulnerable Children (SCOPE-OVC), also aimed to mitigate the impact of HIV/AIDS on orphans and other vulnerable children but only lasted 33 months (between January 2000 and December 2002).¹⁶⁷

292. To try to ensure the continuation of its activities, STEPS OVC has established three regional "transition hubs" that will build the capacity of CBOs, FBOs, and NGOs and will encourage partnerships with the government and private sectors. One key problem is the lack of any effective coordination among the key players, including the government and the

¹⁶⁷ Displaced Children and Orphans Fund, Mid Term Review, 2001.

civil society organizations working in a given geographical area.¹⁶⁸ Of most concern is that the program's trained voluntary caregivers may be inclined to move to other programs that, unlike STEPS OVC, remunerate them for their services.¹⁶⁹ Cultural constraints may prevent volunteer caregivers who visit the homes of PLHIV from being able to deliver their services. Also, some clients who are still healthy and active may wish to keep their HIV status private and, therefore, may reject caregivers' visits.¹⁷⁰

OVC Bursary Scheme

293. The Ministry of Education operates a program to provide secondary school bursaries to orphans and vulnerable children (OVCs). The program has supported about 20,000 students annually (about 4 to 5 percent of secondary students) in recent years, at a cost of K.6 billion (2011 budget), or US\$1.25 million equivalent.¹⁷¹

294. *Targeting.* The program pays the school fees and, where applicable, the boarding fees of OVCs in Grades 8-12. At the beginning of each year, the ministry distributes the budget allocated for the program across districts, on the basis of numbers of OVCs identified in the annual School Census. District education planning officers then allocate the available resources among schools, and a school-based committee determines who is most in need of support. A lack of available resources severely restricts coverage. In the estimation of ministry staff, only about 10 percent of deserving OVCs actually receive bursaries under the program.

295. About 60 percent of beneficiaries are female and 40 percent male. There are no data available on their poverty status. As we have seen (Chapter 2), orphans do not necessarily

¹⁶⁸ STEPS OVC (2011 b).

¹⁶⁹ USAID/Zambia (2011).

¹⁷⁰ STEPS OVC (2011b).

¹⁷¹ Chileshe (2011) reported that actual releases were only about 60 percent of the budgeted amounts in 2009 and 2010 (Table 20, p.31).

come from poorer-than-average households, and secondary students tend to come primarily from the upper income deciles. However the screening based on school-level knowledge of students' circumstances should presumably be resulting in selection of the most needy among them.

296. The program is financed out of the budget. In 2010 the Global Fund provided an additional US\$1 million (about K.5 billion), allowing for a temporary increase in coverage of the scheme. Further Global Fund financing was expected by the ministry but has not materialized.

297. *Value of Benefits.* The level of benefit per student varies greatly, depending on the fee levels of the schools involved. Although there is not detailed information available, ministry staff estimate that overheads associated with the program amount to K400 million per annum. This would represent operating costs of about 7 percent, which is in a reasonable range for such a program. Very roughly, the amount transferred as benefits would average about K.300,000 (US\$60) per student annually.

298. In addition to the government-financed program there are a large number of OVC bursary schemes operated by NGOs. Two of the largest are operated by CAMFED and FAWEZA, which together spent an estimated K.8.8 million (US\$1.8 million) in 2010 or substantially more than the government.

299. *Commentary.* Clearly helping children from low-income families to attend secondary school is a good investment in human capital and in equity. Furthermore, to the extent that beneficiaries are double orphans, it helps them escape the inter-generational poverty trap. The scale of the program is not large; the question in deciding whether to expand it or not is whether it represents a better use of funds than alternative expenditures – the most likely of which would be a social cash transfer tied to secondary school attendance. (The estimated value of the transfer given in the OVC Bursary Scheme – roughly K.300,000

annually – represents K.25,000 per month or slightly less than half the current monthly transfer per household provided by the SCTS.) The benefits of the current school-based system are that school administrators are presumably also assessing which of the neediest students are the most academically promising and that the payments are unambiguously tied to school fees. This trade-off should be assessed, along with a more in-depth examination of the poverty status of those currently being reached by the program, in deciding whether to spend more on expanding the OVC Bursary Scheme, or to shift resources to a conditional social cash transfer that requires secondary school attendance.

F. Smaller Safety Net Programs

300. There are a large number of small programs; most of them run by NGOs or faith-based organizations, and most having only a limited geographical coverage. Examples include CARE International's ART program that provides a cash or in-kind food transfer to people starting ART treatment in Katete district, Friends of Street Children in the Kitwe urban area, and Children in Distress, which provides food and income support to OVCs in peri-urban areas in Kitwe. Most of these programs are localized and do not reach more than a few hundred beneficiaries but may yield some useful lessons for the design of safety nets more generally. There is no information on the total expenditure, or coverage, that such programs might account for; but it seems unlikely that they reach more than a few percent of the poor.

G. Other Transfer Schemes

301. Large amounts are currently spent on programs that transfer money directly to Zambian households but do not in general benefit the poor. Foremost among these are the maize support price subsidy paid by the Food Reserve Agency and the Tertiary Bursary Scheme. While not safety nets in the traditional sense, they are certainly social transfers, in represent the largest single share of public funds that are transferred to individual

households by the government, and it is important to understand the equity and distributional effects of this spending to have a complete picture of transfers in Zambia today.

Food Reserve Agency

302. In common with most developing countries, Zambia operates a Food Reserve Agency (FRA) to stabilize supply and prices for the staple food crop (in this case maize). Unlike in other countries in the region, the FRA does not play a major role in supplying subsidized food to the poor or in times of crisis; and has historically operated at fairly low volume levels.

303. All of this changed dramatically in 2010 with the advent of very large bumper harvests. In 2010 the FRA spent an estimated K1.5 trillion (about \$360 million) in purchasing maize from farmers; buying an estimated 83 percent of smallholder sales. The maize was bought well above the market price, representing a very large transfer from the government to farmers. Although the intention was market stabilization, the program has extremely large transfer and subsidy implications – making it at present the largest single transfer program currently operating in Zambia.

304. Maize was purchased by the FRA in the 2011 season at K1.3 million (\$260 per metric ton), while commercial purchases were taking place at K.850,000 (\$170 per metric ton). So for every ton of maize a farmer was able to sell to the FRA, he or she received a subsidy in public funds of about US\$90.

305. The effect of the program is to raise prices for net sellers of maize and to increase costs for net buyers. Only about 36 percent of smallholder farmers sell maize, and these sales are extremely concentrated, with just over 3 percent of smallholders accounting for 50 percent of sales. The majority of farmers, and nearly all of the poorest, are net purchasers.

Therefore, as shown in Table 32, the purchase scheme potentially benefits a maximum of 17.7 percent of the population (all of whom are non-poor) and potentially harms 63.3 percent, including nearly all of those living below the poverty line.

Table 32: Gainers and Losers of FRA Buying Program

		Approx. Number of People	% of Population	Impact
Net Buyers of Maize	Smallholder Net Buyers of Maize	2,927,000	22.4%	Increased food prices
	Non-Agricultural Rural	515,000	3.9%	Increased food prices
	Urban Poor	1,328,000	10.2%	Increased food prices
	Urban Non-poor	3,500,000	26.8%	Increased food prices
	Total: Possible losers	8,270,000	63.3%	
Neither Buy-nor-Sell	Total: No Impact	2,927,000	22.4%	No Impact
Net Sellers of Maize	Smallholder Net Sellers	2,002,000	15.3%	Increased Income
	Mid-sized & Larger Farmers	316,000	2.4%	Increased Income
	Total: Possible Gainers	2,318,000	17.7%	

Source: Author's calculations based on the distribution of population from 2010 LCMS (CSO, 2011a, Tables 4.3) and Nkonde et al (2011) for data on net buyers and sellers of maize.

306. However, even these results over-state the extent to which net sellers of maize benefit. Only 4 percent of smallholder households were estimated to account for over half of maize sales in 2010.¹⁷² As noted in Kuteya et al (2011), in earlier years 71.3 percent of the maize sold to FRA came from relatively better-off smallholders who farm 5 to 20 hectares of land. Assuming a similar pattern held in the 2010/11 season, the program would have resulted in a transfer of about K.511 billion (\$102 million) to this group (Table 33), with the average relatively well-off farmers (those farming 5 to 20 hectares) receiving a transfer of public money of about K.10 million (US\$2,000) as a result of the program.

307. The net effect is thus to transfer public funds to relatively well-off (in poverty terms) farmers who produce surpluses to sell and to reduce the consumption of the relatively poor and urban consumers at a given food budget level. This could be offset to some extent if

¹⁷² Nkonde et al (2011), p.10.

there were a mechanism for re-selling the maize purchased by the FRA to the poor during the lean season at subsidized prices, but no such mechanism exists, and it is doubtful whether the government should get into the business of subsidized maize sales as well as purchases.

Table 33: Simulated Distribution of FRA Maize Purchase Benefits among Smallholders

	Farm Size Category	Approximate Number of Smallholders ^{a/}	Estimated FRA Maize Purchases ^{b/}	Estimated Transfer Benefit ^{c/}
Poorer	Net Buyers	36% (529,000)	0	Zero
	Neither Buyers nor Sellers	38% (559,000)	0	Zero
	Net Sellers – Small (<5 hectares)	23% (338,000)	29%	K. 209 billion (\$42 million) \$124 per HH
Richer	Net Sellers - Medium-Large	3% (50,000)	71%	K.511 b. (\$102 million) \$2,000 per HH

Notes: a/ and b/ Based on earlier year's patterns of purchases, drawn from FSRP data (Sitko et al, 2011, Nkonde et al, 2011, and Jayne et al, 2011b). The share of small-scale net sellers could have been higher in 2011 due to very large harvest, but basic pattern is expected to have remained the same.

c/ Based on 2011 FRA purchases of 1.6 million metric tons of maize and an average transfer benefit of K.450,000 per ton (the difference between the FRA purchase price of K.1.300/kg. and the commercial purchase price of K.850 per kilogram).

308. The World Bank is discussing the reform of the program is separately in its World Bank's dialogue with the government. However, it is important to note that (i) this represents a very large transfer and fiscal cost that could be used to fund more pro-poor transfers or investments and (ii) if there are to be continued large surpluses bought by the FRA, then consideration needs to be given to developing a mechanism for channeling some of the maize into safety net distributions – either through targeted sales or distributional programs (such as food-for-work or supplementary feeding). Both present challenges of logistics, targeting, and questions of cost-effectiveness vis-à-vis other safety net transfers, but the use of the surpluses and regressive transfers as a result of the current arrangement need to be addressed.

309. Ideally better-functioning trade, transport, and market links would eliminate the need for a government-run FRA. However, these take time to develop, and in the interim

the government may want to maintain a reserve to protect against shortages in bad years and to stabilize large swings in supply and demand. Options for improving the equity effects of this scheme include:

- Maintaining a smaller reserve.
- Buying at lower prices – closer to market prices.
- Having a systematic policy to govern releases from the reserve in a way that maximizes welfare gains by keeping reasonable downward pressure on prices by increasing aggregate supply during times of shortage.
- Finding safety net uses for any surpluses, for example, allowing lean-season releases in remote rural areas, providing free or subsidized maize to the urban poor (but selectively focused in the poorest neighborhoods and in very small packages, possibly using vouchers), and/or using surpluses for safety net programs such as food-for-work or school feeding.

310. All of these require further analysis, and all involve risks, but they would all represent an improvement on the current arrangements.

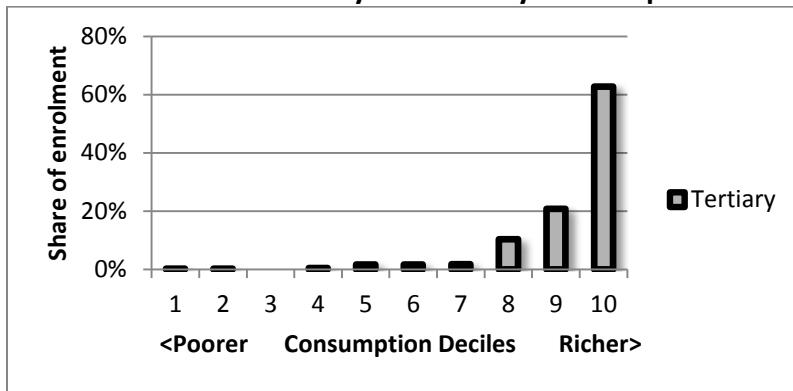
Tertiary Bursary Scheme

311. The government provides bursaries to tertiary students, covering fees, living costs, and accommodation. The objective of the scheme is to increase Zambia's investment in human capital, and beneficiaries were originally supposed to work for the government for a number of years following graduation in exchange for the bursary. The program is in theory a loan scheme, but repayment is almost non-existent.

312. The program is expensive and has been growing significantly in recent years to the point where K.356 billion (US\$71 million) was budgeted for it in 2012. While its objectives do not involve poverty reduction, the program nonetheless represents a major transfer of

public funds to individual households. There is no information available on who benefits in terms of poverty status. While some of the bursaries may benefit students from poor households, the vast majority of tertiary students come from households in the upper income deciles (Figure 17). In 2010, 95 percent of tertiary students came from non-poor households, and only 1 percent came from among the very poor.¹⁷³

Figure 17: Distribution of Tertiary Students by Consumption Decile, 2010



Source: World Bank staff calculations based on 2010 LCMS data

3.3 Broad Issues with the Current Overall Package of Programs

313. A number of immediate observations can be made on the current overall package of programs:

- There is little coordination between programs.
- The larger programs are not particularly poverty focused (School Feeding, FISP).
- Programs that explicitly cover the poor are very small-scale (PWAS, SCTS, FSP, PUSH), with total coverage amounting to less than a few percent of the poor.

¹⁷³ World Bank processing of 2010 LCMS data.

- We do not know how effectively targeted any of the programs are; with the exception of cash transfer schemes none of them have made an attempt to rigorously analyze who is being reached, and this is a major gap.
- Programs suffer from stop-and-start disruptions, because of the unpredictability of funding (good examples are SPLASH and the FSP); in the absence of continuous and predictable transfers, there is likely little impact on the poverty status of recipients.
- There is also almost no rigorous evidence on what impact existing programs are having on the consumption and poverty status of those they are intended to benefit, making it very difficult for policymakers to determine which represent cost-effective options for scaling up. An exception is the cash transfer schemes, which were rigorously evaluated.
- The major transfer programs (School Feeding and the Farmer's Input Support Program) are each operated by different ministries, while the small transfer schemes dedicated explicitly at the very poor (the Public Welfare Assistance Scheme and externally supported Social Cash Transfer Scheme) are operated by yet a third ministry with no effective central direction of programming or strategy.
- There does not appear to be any geographic coordination of coverage between programs so some areas or households may be covered by multiple programs while others, equally poor, may be covered by none.
- There is a lack of programs explicitly targeted to the urban poor; while urban poverty is less pronounced than in rural areas, nonetheless tailored interventions are probably needed.

- The current programs do not particularly respond to the seasonality of poverty identified in Chapter 2.
- Since the end of SPLASH there is no program explicitly addressing malnutrition; this is a major gap in a country where early childhood malnutrition is such a significant problem.
- Only the agricultural input programs (FISP and FSP) attempt to address the promotive aspects of safety nets – aiming towards the longer term.
- In most cases transfers are sporadic, and households receive benefits for too short a period of time for the programs to have a long-term impact on household's poverty status.

314. There are four questions with respect to the overall package of programs that are of potential interest to policymakers: (i) how wide their coverage of the poor is; (ii) whether the transfer they provide is adequate to make a difference to poverty levels; (iii) whether they represent a cost-effective way of transferring resources and reducing poverty; and (iv) whether they respond to the most critical aspects of poverty experienced by Zambians.

A. Coverage

315. Table 34 below shows the approximate coverage of the population and of the very poor by the existing programs. What is immediately clear is that none of the programs with the exception of the School Feeding Program and the FISP cover more than about 1 percent of the population.

316. Poverty targeted programs have very small coverage relative to need. Table 34 is based on administrative data from the programs and some reasonable assumptions

regarding the extent to which they reach the poor. Since none of the programs rigorously measures the consumption of beneficiaries, these are approximations. However, they tell a compelling story and, if anything, probably represent an upper bound of the share of the very poor being reached. More refined data might tell a slightly different story, but the fundamental point remains that poverty-targeted programs operate at a minuscule level relative to need and that almost none of the very poor in Zambia are currently benefitting from public transfer programs.

Table 34: Coverage of Existing Transfer Programs, 2011

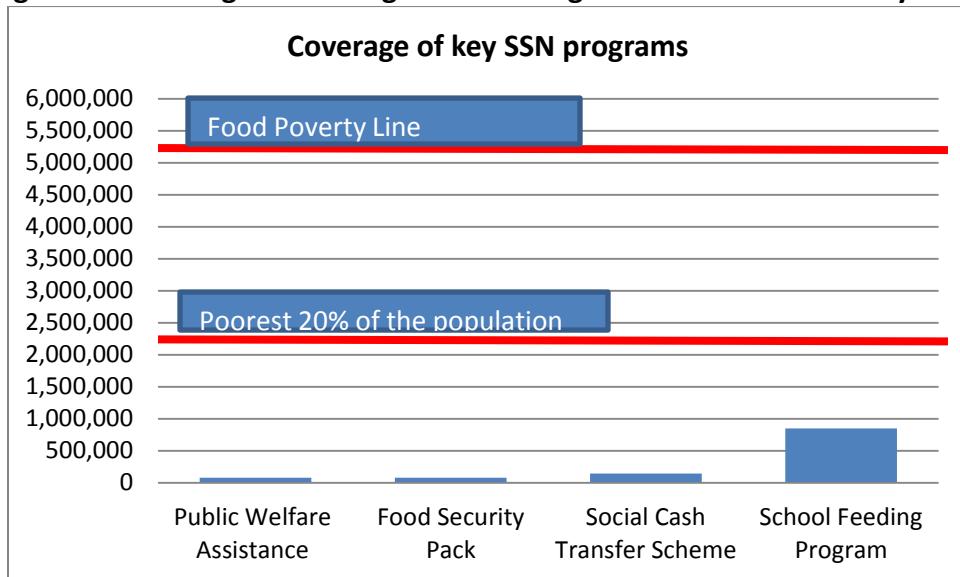
Program	Approximate Coverage (Beneficiaries)		Approx. % of Population /y	Approx. % of the Very Poor
	Households	Individuals		
Katete - Old Age Pension	n.a.	5,758	<0.1%	0.1%
School Feeding	566,000	850,000	6.5%	9.3%
Social Cash Transfer Scheme	22,900	114,500	0.9%	1.7%
Public Welfare Assistance Scheme	n.a.	75,496	0.6%	1.2%
OVC Bursary Scheme - MoE	n.a.	20,000	0.2%	0.1%
Food Security Pack	14,400	76,300	0.6%	0.9%
Farmers' Input Support Program	800,000	4,000,000	30.6%	7.3%
SPLASH	28,500	142,500	1.1%	1.4%
School Milk Program	n.a.	13,000	0.1%	0.1%
OVC Support (STEPS/OVC)	n.a.	146,000	1.1%	<1%
Tertiary Bursary Scheme	n.a.	Est.50,000	<0.5%	<0.01%
Maize Price Support Scheme (FRA)	460,000	2,300,000	15.3%	<0.4%

Source: Author's calculations based on program administrative data and descriptions.

Note: Based on population estimate of 13.1 million and 5.5 million extreme poor (Chapter 2).

317. Even if the existing programs were to be perfectly targeted to the extreme poor, their coverage is well short of reaching all of the extreme poor. Figure 18 below shows how few of the population are covered by existing transfer programs. Yet the largest programs such as the Home Grown School Feeding Program do not have the potential to cover the extreme poor, even under the strong assumption of perfect targeting. None of the major programs has the potential to cover even the poorest 20 percent of the population.

Figure 18: Coverage of Existing Transfer Programs Relative to Poverty Lines



Source: Author's calculations based on program administrative data and LCMS for the poverty headcount.

B. Benefit Levels

318. Table 35 shows the levels of benefits provided by the existing programs relative to the food and basic needs poverty lines and in comparison to the pre-transfer consumption of the poorest 20 percent of households.

Table 35: Scale and Significance of Benefit Levels of Existing Programs

Program	Benefit Level ^{a/} (2011 Kwacha p.c. per month)	As % of Food Poverty Line ^{b/}	As % of BN Poverty Line	As % of Pre- Transfer Income of Bottom 20%
Katete - Old Age Pension	13,274	13.5%	8.6%	29.6%
School Feeding	7,800/ child	7.9%	5.0%	17.4%
Social Cash Transfer Scheme	13,274	13.5%	8.6%	29.6%
Public Welfare Assistance Scheme	- Variable -	n.a.	n.a.	n.a.
OVC Bursary Scheme - MoE	23,300 /child	23.7%	15.1%	52.0 %
Food Security Pack	8,719+	8.9%+	5.6%+	19.4%+
Farmers' Input Support Program	7,925	7.8%	5.0%	17.2%
SPLASH	17,926	17.6%	11.3%	38.6%
School Milk Program	15,862/child	16.1%	10.2%	35.4%
Maize Price Support (FRA)	9,218-370,000+	6-375%	9-240%	11-820%

Source: Author's calculations based on program administrative data.

Notes: a/ Kwacha per adult equivalent per month (except for OVC bursary based on individual) imputed based on actual transfer value and assumed family size.

b/ Based on national food poverty line of K.98,505 per month, a basic needs poverty line of K.155,000 (weighted average of urban and rural), and the average per capita household consumption among the bottom 20 percent of K.44,855 (Chapter 2, LCMS 2010 data). Note for the Maize Price Support, the range of effective transfer can be very high depending on how much surplus a farmer sells to the FRA.

319. Most of the existing programs deliver per capita benefits that are around 10 to 15 percent of the food poverty line. In theory this should be enough to significantly reduce the extreme poverty gap for recipient households (the amount by which the average extreme poor household lives below the food poverty line, calculated at 14.4 percent in 2010).¹⁷⁴ However, in some areas of the country, the extreme poverty gap is much deeper than the national average, and in Zambia in general, the poorest 20 percent of households live sufficiently far below the food poverty line that these amounts would be insufficient to bring them up to adequate levels of consumption.

320. The last column shows the amounts of the transfers provided relative to the monthly consumption of the poorest 20 percent of the population, a measure often used to compare programs across countries. They are mostly in the range of 20 to 30 percent of consumption, which is consistent with the levels of benefits provided by social cash transfer programs elsewhere. However, it should be noted that, because the absolute levels of

¹⁷⁴ World Bank analysis using 2010 LCMS data.

consumption are so low among the very poor in Zambia, these ratios may not be that relevant. For example, 20 percent of the pre-consumption transfer in Mexico or Brazil represents about US\$50 per month, whereas in Zambia it is about US\$2. Even allowing for price differences, this would buy very much less food.

321. These calculations do not, of course, tell us anything about the effectiveness of programs in long-term reduction of poverty, nor do they tell us how successful they are at supporting promotive safety net activities.

C. Unit Costs and Cost-effectiveness

322. Table 36 shows the approximate cost per beneficiary of existing programs and a rough estimation of what each costs to deliver one dollar (or kwacha) worth of benefits. Comparisons among programs are problematic because they involve very different types of services (for example, the Food Security Pack includes complex farmer support activities designed to increase long-term productivity, whereas the Social Cash Transfer Scheme simply distributes benefits). Nonetheless the numbers provide some indication of which types of intervention might represent the best value for money and, at a minimum, how much additional impact the program would have to have to make it better than just giving households a straight cash transfer.

Table 36: Costs and Cost-effectiveness of Current Transfer Programs

Program	Total Cost (Annual) ^{a/}	Approx. Cost Annual per Beneficiary	Estimated Cost per \$ of Transfer
Home Grown School Feeding	\$18.7 million	\$24	\$ 1.33
Social Cash Transfer Scheme	\$8.4 million	\$144 per HH	\$ 2.54
Public Welfare Assistance Scheme	\$1.6 million	\$ 21	n.a.
OVC Bursary Scheme - MoE	\$1.4 million	\$ 70	\$ 1.07+
Food Security Pack	\$3.0 million	\$208 per HH	<\$ 2.18
Farmers' Input Support Program	\$120 million	\$100+ per HH	\$1.16+
SPLASH	\$5.4 million	\$117 per HH	\$1.20+
Tertiary Bursary Scheme	\$52.8 million	\$ 1,056	n.a.
PUSH	\$2.5 million	\$143 per HH	\$ 2.70

Notes: In most cases where a household receives benefits, these are based on the total number of beneficiaries (averaged over all household members); except School Feeding, PWAS, and OVC bursaries, in which benefits are received by individuals.

a/ 2011 or most recent year for which data are available. School feeding is a rough estimate (based on 850,000 at \$24 each). The FISP total is gross spending – not adjusted for the farmers' share.

323. The existing system of safety net programs and transfers has neither sufficient coverage nor the right instruments to address all poverty risks and deprivation faced by Zambians throughout their lifecycle. Table 37 shows that, even though some programs aim to tackle a certain risk or vulnerability particular to a certain age group, their adequacy and coverage is very limited. Some age groups are not covered at all, even though they may experience an equal amount of hardship. For example, there are no interventions to support unemployed youths or working-age adults living in extreme poverty.

Table 37: Interventions to Address Lifecycle Poverty

Age group	Circumstances aggravating poverty/vulnerability	Leading indicators of deprivation	Number of individuals affected	Intervention addressing the risks		Existing Gap	
				Type	Number of beneficiaries	Programming	Coverage
0-5 years old	Malnutrition	Extremely poor children who are stunted	412,453			yes	yes
	Low income	Extreme poverty	883,197	Cash transfers	45,800	no	yes
6-14 years old	Low human capital	Not in school	908,928	School Feeding Program	850,000 (all ages)	yes	yes
	Low income	Child labor (exclusive employment: 7-14 years old)	176,782			yes	
	Orphanhood	Children 0-18 who lost both parents and live in extreme poverty	126,087	OVC Bursary Scheme, Cash transfers	20,000	no	yes
15-24	Low human capital	Not in school (15-17)	374,156	School Feeding Program		yes	yes
	Low income	Youth unemployment (12-29)	391,129	skills training	n.a.		
25-60	Low income	Extreme poverty (18-59)	2,303,773	FISP, Food Security Pack	4,000,000 (all ages)	yes	yes
	Low income	Without social insurance	n.a			yes	yes
	Low income	Underemployment	n.a			yes	yes
65 +	Low income	No old age pension	315,663	Cash transfers, Pensions	5,758 (cash transfers)	yes	yes

CHAPTER IV: Fiscal Space and Affordability – The Context for Spending on Safety Nets in Zambia

324. Following a long period of macro and fiscal instability and weak management that lasted from the 1970s through the 1990s, Zambia has staged a remarkable recovery. This has been driven in part by the privatization of the mines and the boom in copper prices and partly by the re-establishment of fiscal discipline.¹⁷⁵

325. Spending has been reduced from an unsustainable 31 percent of GDP in 2002 to about 23 percent today, and deficits, which had reached a high of 14 percent of GDP in the 1980s, were reduced to almost zero by 2007. They have since increased as a result of stimulus spending in response to the global crisis and, more recently, to the large expenses involved in purchasing maize through the FRA (1.5 percent of GDP). Nevertheless, in general they remain in the sustainable range, at about 3 percent of GDP.

326. Meanwhile, revenue has been fairly stable at about 18 percent of GDP, and this, combined with recent robust GDP growth, has allowed the government the fiscal space to at least consider increasing spending on investments and poverty-reducing programs.

327. Foreign aid is variously estimated at between US\$900 and \$1,270 million annually (2010).¹⁷⁶ As domestic revenue has grown, aid has been declining as a share of public spending, and now represents only about 10 percent of budget financing.¹⁷⁷ There seems

¹⁷⁵ The two are related. By the 1990s, bailing out the mines was costing the government US\$1 million per day, or 4 percent of GDP, making it all but impossible to effectively manage its fiscal affairs.

¹⁷⁶ The uncertainty comes from the fact that much aid is not channeled through the fiscal accounts, so the level of total aid is not known with certainty. The high estimate of US\$1,269 million comes from OECD estimates, but much of this is not available to the government to support public programs. The budget only shows about US\$400 million equivalent in external grant and loan financing.

¹⁷⁷ Foreign grant and loan financing as shown in the budget amounts to about 10.5 percent of public spending. The total amounts (which are substantially higher because much aid is off-budget, equivalent to perhaps 25 percent of total spending by donors and government on all programs, based on the OECD estimate of \$1,269 million of foreign aid.

little reason to think foreign assistance will increase dramatically in the foreseeable future, given the general aid environment.

328. Prospects at moment look promising – for example, revenue increases of about K.2 trillion (US\$400 million) annually are forecast for the next few years.¹⁷⁸ However the external environment remains fragile, and these increases depend not only on continued robust economic growth at home but also relatively stable global economic conditions externally, including continued demand and robust prices for copper.¹⁷⁹ In these circumstances, while there is scope for expanding safety net spending, the government needs to resist the temptation to expand spending on numerous attractive new schemes, thus risking a return to the fiscal indiscipline of the past.

Table 38: Overall Fiscal Situation, 2010 Actuals

	% of GDP	MK Billions	US\$ Millions ^{c/}	US\$ per capita
Revenue & Grants	19.6%	15,188	\$ 3,166	\$ 244
<i>o/w Domestic Revenue</i>	17.8%	13,809	\$ 2,889	\$222
Total Expenditure	22.7%	17,634	\$ 3,647	\$ 283
<i>o/w Recurrent</i>	19.1%	14,497	\$ 3,020	\$ 232
<i>Recurrent net of Wages & Interest^{a/}</i>		6,821	\$ 1,421	\$ 109
Deficit^{b/}	-3.1%	-2,445	- \$ 509	- \$ 39

Notes: a/ Constructed from IMF (2011), Tables 2 and 3. This essentially represents the discretionary pool of resources available to the government out of which transfers would need to be financed.

b/ Overall balance including grants. c/ Based on the 2010 average exchange rate of 4,800, and a mid-year population estimate of 13 million.

329. There are clearly numerous legitimate competing ways to increase spending in ways that could benefit the poor, including improving the quality of education, increasing the coverage of health care, or making roads, electricity, or agricultural services that will enhance the ability of the poor to benefit from growth. Therefore, the case for expanding spending on safety net transfers needs to be fairly strong to justify allocating substantial additional scarce resources to them.

¹⁷⁸ (IMF (2011) Tables 2 and 3, p.17-18.

¹⁷⁹ Note however that mining taxes constitute only about 10 percent of revenue (based on 1.9 percent of GDP mining revenue).

330. Nonetheless, Zambia is already spending large amounts of money on programs that provide transfers to its citizens, most of which are not targeted to the poor (see discussion in next section). Also, recent experience elsewhere – for example in Latin America, India, and in other countries in Africa – has shown that quite large-scale spending on well-designed safety net transfers can play a substantial role in accelerating the rate of poverty reduction.

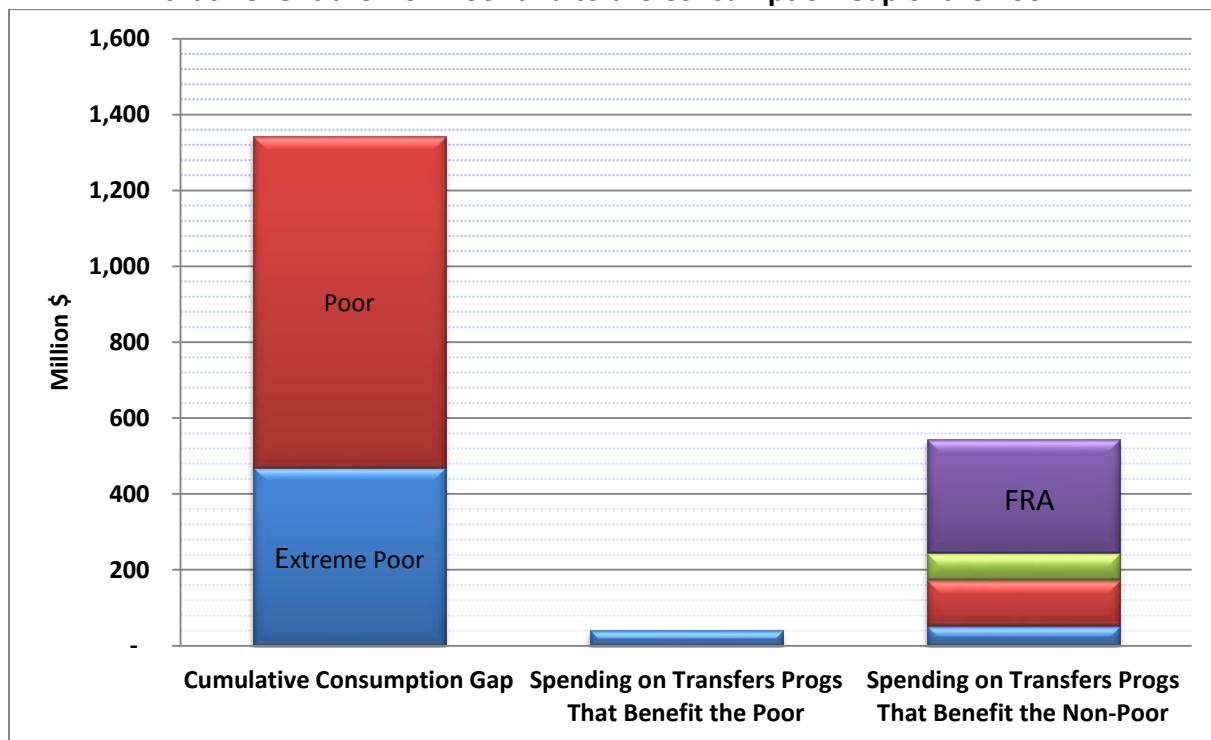
331. The high level of inequality in Zambia and failure of growth to date to reach many of the poor is an argument in favor of increased spending on safety net transfers to the poorest, and the fiscal outlook suggests that – within reason – there should be space to finance them. The key will be to:

- Select the most cost-effective instruments.
- Do so in a way that is fiscally sustainable.
- Where possible use existing expenditures to minimize the need for new spending.
- Do so in a way that can be scaled up and down in response to evolving fiscal conditions and changing needs, rather than involving permanent entitlements.
- Narrowly target those aspects of poverty for which transfers are the most appropriate solution (this is likely to include some forms of categories related to HIV/AIDS, child-headed and grandparent-headed household, early childhood malnutrition and seasonal food poverty as well as some geographical targeting)

- Where possible, use the same expenditures to achieve a broader development objective, for example, by increasing productivity (via agricultural input-based programs), building physical assets (for example, through public works employment-based-transfers), or increasing human capital (for example, through conditional cash transfers that encourage better education, health, or nutritional outcomes). Some discussion of what such a program might consist of is presented at the end of this report.

332. As shown in Chapter 3, the largest transfer programs in Zambia support not the poor but the relatively well-off. By one estimate, 90 percent of funding for poverty reduction programs is absorbed by the farm inputs programs, of which the vast majority under the FISP benefits less-poor farmers. What is more alarming is that spending on these non-poor transfers has been growing dramatically. Figure 19 below shows spending on true safety net transfers as opposed to spending on the two largest agricultural programs (which generally benefit the non-poor) and relative to the national basic needs and food poverty gaps as estimated from the 2010 LCMS. The amount spent on the FRA and the FISP annually would be enough to completely close the food poverty gap in Zambia.

Figure 19: Spending on Transfer Programs that Benefit the Poor compared to Programs that Benefit the Non-Poor and to the Consumption Gap of the Poor



Source: Author's estimations based on LCMS 2010 and administrative data on spending on safety net expenditures for 2010-2011.

333. Not only is a large amount of money spent on programs that benefit the better off, but also spending on these programs has increased dramatically in recent years. This increase has been driven by rising spending on all four programs that are not poverty-targeted: tertiary bursaries, FRA purchases, the FISP, and pension arrears. Table 39 illustrates this steep increase, from about K.780 billion (US\$213 million) in 2008 to an estimated K.3.6 trillion (US\$718 million) in the current year, to a point where these four programs together account for 18 percent of all domestic revenue. To be fair, the actual outlay by the government is probably less than these gross estimates because some of the FISP expenditure is covered by farmers' contributions to the scheme and some of the FRA costs are recouped when grain is sold. Nonetheless, the order of magnitude of the increase is staggering.

Table 39: Growing Spending on Transfers to the Non-poor (2008-2012)
(Total Spending - Recent Years; Current Kwacha Billions)

Transfer	2008	2009	2010	2011	2012
<i>Tertiary Bursaries</i>	89	114	124	289	386
<i>FISP</i>	185	435	591	635	602
<i>FRA Purchases</i>	80	100	n.a.	1500	2200
<i>Pension Arrears</i>	436	174	147	358	474
Total	790	823	862+	2782	3662
US\$ millions	\$213 m.	\$165 m.	\$ 180 m.+	\$556 m.	\$718 m.
% of Revenue	6%	7%	6%+	14%	18%

Sources: Based on MoF data, except the FRA purchases for 2011 and 2012, which are based on Ministry of Agriculture and Livestock press releases (see FRA, 2011) and World Bank mission estimates. Pension arrears in 2012 appear in Deloitte (2011) as the “public sector pension plan.”

334. The new Patriotic Front government has set itself the specific objective of reaching those who have been left behind by Zambia’s recent prosperity and putting more money in the pockets of the poorest. While these four programs have other objectives and are not explicitly intended to reach the poor, they nonetheless represent very significant transfers from the public purse to Zambian households. It is clear that some re-targeting of transfer spending could free up resources that would more effectively reach the poor. For example, just half of the proposed 2012 FISP budget could finance a monthly cash transfer equal to that delivered by the current Social Cash Transfer Scheme to 348,000 households (about 1.7 million people), or a third of all the extreme poor in Zambia. This is 16 times as many families as are currently reached by the Social Cash Transfer Scheme. It is recognized that such a re-targeting would involve winners and losers, and would require consideration of political trade-offs, but if the objective is to help the poorest, then there would appear to be a strong case for some re-orientation of spending on transfers.

CHAPTER V: Broad Safety Net Policy and Institutional Issues

5.1 Zambia's Current Social Protection Policy

335. The Government of Zambia has made great strides in acknowledging the role played by safety nets in helping the poor and vulnerable. It has demonstrated this by: (i) developing a national Social Protection Strategy in 2005; (ii) incorporating social safety nets explicitly in the National Long-term Vision 2030 and the National Development Plans; (iii) developing a National Food and Nutrition Strategic Plan that recognizes that social safety nets are critical for reducing chronic under-nutrition; and (iv) embarking on the preparation of a comprehensive new Social Protection Policy in 2012.

336. The draft Social Protection Strategy released in 2005 outlined 10 immediate objectives for the period 2006-2010, but the strategy was never formally endorsed by the Cabinet. The strategy recognized the need to provide regular direct assistance to low-income households with no assets, the need to help low-capacity households to increase their knowledge of and access to livelihood opportunities to avoid welfare dependency, and the need to increase the access of these households to health care and education. Although the draft strategy attempted to pull together the range of existing programs into a coherent framework, it did not identify gaps in provision or recommend any new programs and policies that could fill those gaps. While the strategy document set out a goal of “contributing to the security of all Zambians by ensuring that incapacitated and low-capacity households and people have sufficient income security to meet basic needs, and protection from the worst impacts of risks and shocks,”¹⁸⁰ the objectives, coverage targets, and budgets of existing programs were too limited to make it possible to achieve this goal.

¹⁸⁰ SP-SAG (2005) p.17.

337. Some of the objectives of the draft Social Protection strategy were included in the National Development Plans. The Sixth National Development Plan 2011-2015 (SNDP) articulates that states the goal in the area of social protection is to “empower low-capacity households and provide social assistance to incapacitated households and support to vulnerable people to live decent lives.” The SNDP spells out that this goal will be achieved “through [the] provision of skills, financial assistance, agricultural inputs, and access to services to low-capacity and incapacitated households and other vulnerable persons.” These statements are consistent with the National Long-term Vision 2030 (Vision 2030), which envisages a “nation with [the] capacity to promote and provide sustainable security against constant periodic critical levels of deprivation and extreme vulnerability by 2030.”

338. However, these statements have yet to be translated into a coherent social protection policy. This means that there is a lack of clarity about what exactly constitutes the social protection sector and makes it difficult to define the place of the existing social transfers as part of a coherent safety net system. The SNDP uses a narrow and selective definition of the sector. Many of the largest existing programs are not covered by the social protection framework of the SNDP, particularly the Farmers’ Input Support Program (FISP) and the FRA Maize Price Support Scheme (the food reserve), both of which major programs that spend a significant amount of resources on strengthening the livelihoods of agricultural households. These programs consume by far the largest amount of resources compared to all other safety net types of programs and could make a major contribution towards “empowering low-capacity households to have decent lives” if there were more clarity of their objectives, and better targeting. Nor are the social insurance schemes or the various bursary schemes for OVC included as part of the sector

339. Another issue is that the planned annual targets for some of the programs (Table 40) seem very ambitious compared to past history and is not clear how they could be achieved in the absence of a clear strategic plan. For example, the Food Security Pack in 2011 had a target of reaching about 25,000 households, yet it was only able to support about half of

this number (14,000 beneficiaries). Its five-year target is to reach 40,000 households, a 300 percent increase in coverage. The Home Grown School Feeding Program and the Women's Development program suffer from the same over-optimism. Only the PWAS seems to have reached the targeted included in its first year plan, which is mostly explained by the fact that it is a one time, discretionary type of support based on needs identified by social welfare officers.

Table 40: Objectives, Programs, and Annual Targets of the Sixth National Development Plan

Objective	Program/Project	Annual targets				
		2011	2012	2013	2014	2015
Empowerment of low-capacity households	Microcredit to low-capacity households	12,000	13,500	15,000	16,500	18,000
	Community self help	500	600	700	800	1,000
	Food Security Pack	25,000	30,000	35,000	40,000	45,000
	Women's Development	2,500	3,000	3,500	4,000	4,500
	Functional literacy and skills training	30,000	35,000	40,000	45,000	50,000
To provide social assistance to incapacitated households	Public Welfare Assistance Scheme	75,000	100,000	150,000	200,000	250,000
	Social Cash Transfer Scheme	26,500	38,500	54,000	62,200	69,000
	Old Age Pension (Katete)	4,500	10,000	50,000	100,000	300,000
To provide care and support to vulnerable children and youth	Expanding rehabilitation centers	1	2	2	2	2
	School feeding	400,000	550,000	700,000	850,000	1,000,000
To increase access to justice for vulnerable groups	Establish one-stop centers in all provincial headquarters	1	2	2	2	2

Source: Ministry of Finance and National Planning (2011a).

340. Although the annual targets are ambitious, none of the planned interventions has the potential to cover a substantial proportion of the extremely poor, even if perfectly targeted to the poorest 10 percent of the population. Only the Home Grown School Feeding Program has substantial coverage and aims to reach a target of about 1 million children by 2015 but this is only because of a surplus in the purchase of maize, which may not be sustainable over time.

341. The new Patriotic Front government committed in its 2011-2016 Manifesto to adopt a comprehensive Social Protection Policy which will “guarantee all citizens access to basic services and provide additional support to those who face special challenges in meeting their basic needs.” The Manifesto mentions specific measures to be included in the policy, including:

- Helping the poorest families to access education and health care to ensure their children benefit from basic services
- Helping vulnerable families to become self-reliant through the delivery of input packs in rural areas and skills training /micro business development in urban areas.
- Supporting people affected by unforeseen natural disasters or shocks with programs to sustain their immediate survival and to restore and strengthen their livelihoods.
- Developing a package of lifecycle benefits, including age-based grants to address widespread poverty, deprivation, and suffering.

342. The policy formulation process is expected to start in mid-2012, and the MCDMCH will be leading the process with the support of an inter-ministerial technical committee tasked with producing a draft Social Protection Policy proposal and Cabinet Memorandum before the end of 2012. The process involved in preparing national policy documents and Cabinet Memoranda in Zambia is very complex. It involves many key players and a wide consultative process with relevant stakeholders to ensure that all technical issues and points of disagreement are fully considered and resolved before the Cabinet considers and decides on the committee’s recommendations. Some of the government’s development partners are supporting the process by building capacity within the MCDMCH and by supplying the best available evidence to help the government to make informed decisions on the policy.

343. Under these circumstances the formation and approval of this Social Protection Policy will probably take much longer than initially envisaged, and this delay will make it difficult to introduce the substantial changes needed to strengthen the social protection system in the meantime. In the absence of a clear policy, it will be difficult to make the case for scaling up those programs that have been proven successful and/or for reallocating resources from less effective programs. It will be equally difficult to increase coordination among institutions to increase efficiency in the absence of a framework that clearly defines their roles and responsibilities.

344. The government has recently developed a new National Food and Nutrition Strategic Plan (NFNSP) for 2011-2015 that recognizes the need to solve the problem of stunting, which has remained persistently high (59 percent) in children under the age of 2 (according to data from the 2007 DHS).¹⁸¹ On the basis of local and international food and nutrition research, this strategy advocates well-proven, effective, and low-cost food and nutrition interventions. It also proposes multi-sector, synergetic efforts to strengthen and expand interventions related to the first 1,000 days in a child's life from the beginning of the pregnancy to two years of age. These include ensuring nutritionally adequate meals and a diverse diet for pregnant women as well as strengthening and expanding services related to growth monitoring and providing new mothers with appropriate counseling on optimal infant and child feeding practices (NFNSP, 2011).

345. All of these efforts towards the formulation of a Social Protection Policy are proof of the government's growing realization that social protection is a powerful way to fight poverty and promote growth. The country is in a good position to develop a social protection policy on the foundation of solid evidence and lessons from the implementation of some successful policy innovations such as the Kalomo cash transfer pilots. The challenge

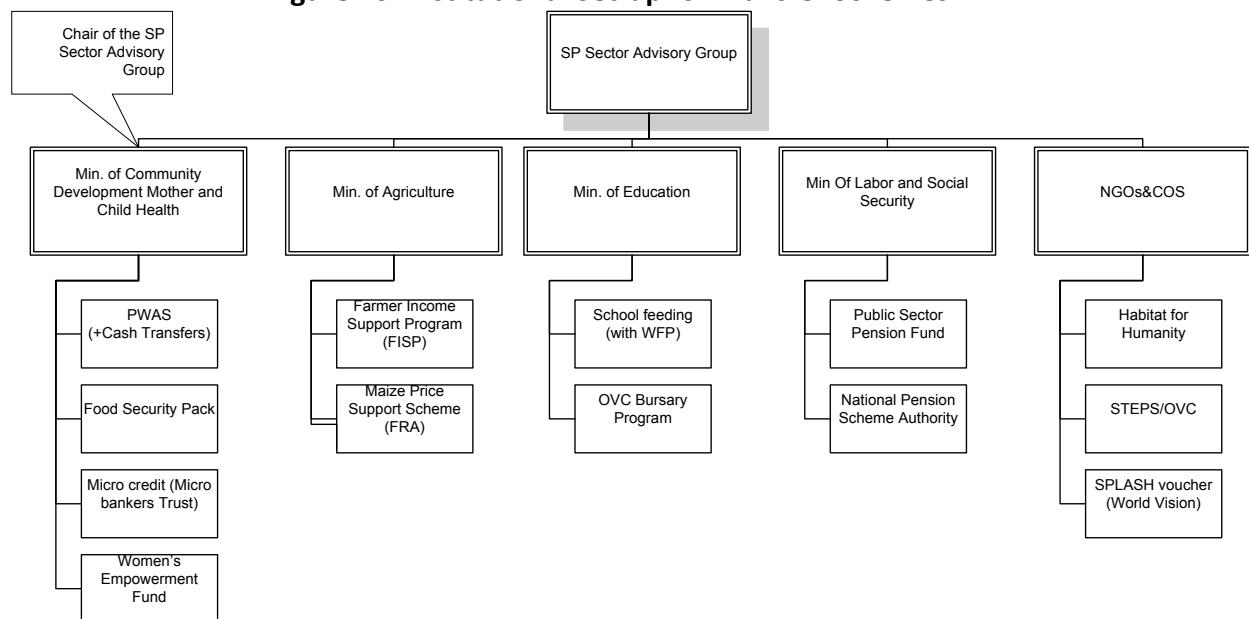
¹⁸¹ CSO (2011c).

for the government is to ensure that a wide range of stakeholders is consulted to facilitate the widest possible ownership of the final Social Protection Policy.

5.2 Institutional Set-up and Responsibilities

346. Because the approach to social protection in the past was piecemeal and fragmented, this has resulted in a proliferation of social transfer programs run by several different ministries and many non-government agencies (see Figure 19). Of these agencies, the MCDMCH is the leading agency in charge of providing safety nets to the destitute and to labor-constrained households, being in charge of several programs including the PWAS, the Social Cash Transfer Scheme, the Food Security Pack, microcredit schemes, and women's empowerment. The Ministry of Education is responsible for the School Feeding Program, one of the largest programs in terms of coverage, and the Ministry of Agriculture and Livestock is responsible for some of the largest transfer programs in terms of resources, including the Farmers' Input Support Program.

Figure 20: Institutional Set-up for Transfer Schemes



Note: PWAS = Public Welfare Assistance Scheme, FISP = Farmers' Input Support Program, FRA = Food Reserve Agency, OVC = Orphans and Vulnerable Children, SPLASH = Sustainable Program for Livelihoods and Solutions for Hunger

347. Because there is no central agency responsible for coordinating public policy on social protection or for programming and budgeting, all agencies design and implement their programs in a vacuum. Therefore, no agency considers how its programs may overlap with or complement other programs implemented by other agencies. Another problem is that there is no consistent voice giving advice to the Ministry of Finance and Planning on expenditure choices and trade-offs on social protection. A study of the drivers of change for a national social protection scheme in Zambia has shown that the MCDMCH has been slow to assume leadership of social protection, stemming from its lack of institutional and policymaking capacity.¹⁸²

348. The absence of policy and institutional coordination has resulted in overlap and duplication between programs. Some households receive benefits from multiple programs, while others that are equally poor or poorer receive none. Similarly, programs overlap in some areas while in other areas there are no social protection initiatives at all.¹⁸³

349. Many of the largest programs such as the FISP effectively fall outside the safety net despite the existence of notional coordinating arrangements. There is no framework to facilitate dialogue and cooperation between the MCDMCH and other key ministries that operate some the largest transfer programs such as the Ministry of Agriculture and Livestock and the Ministry of Education. Nor is there a structure to coordinate government programs with the various initiatives funded by NGOs.

350. Recognizing the importance of coordination within the social protection sector, the government created a Social Protection Sector Advisory Group (SP-SAG) in 2005. The SAG is chaired by the Permanent Secretary of the MCDMCH and is comprised of members from a range of ministries, as well as civil society, NGOs, and Zambia's development partners. Though the main responsibility of SP-SAG is coordination between social protection

¹⁸² Barrientos et al (2005).

¹⁸³ Petrauskis (2007).

programs at the national level, in practice it plays more of an advisory role that is limited to reviewing the implementation bottlenecks of individual programs. It does not have any power to make decisions or recommendations for increasing the coherence of the social protection system. Nor does it review the modalities for achieving each program's objectives and outcomes.

5.3 Implementation and Capacity Constraints

351. Some capacity for implementing safety nets has existed since before independence. The Public Welfare Assistance Scheme (PWAS) run by the MCDMCH has a good structure in place. The PWAS has been the national welfare assistance program since before independence (serving war veterans and distressed miners). It helps destitute households that are experiencing aggravating shocks such as the death of a breadwinner, a disability, or homelessness. The PWAS structure is very elaborate. At the district level, it operates District Social Welfare Offices. It also relies on committees of volunteers at the community, ward, and district levels to implement welfare assistance programs, from targeting and enrollment to the payment of benefits. With support from the EU, UNICEF, the DfID, the Danish Embassy, GIZ, and other partners, the PWAS has been strengthened and has emerged as a participatory community-based program, targeting the most destitute and vulnerable of the population with one-off in-kind grants.

352. Even with its elaborate structure, the PWAS is severely underfunded, and its overreliance on volunteers poses a serious challenge as its programs are scaled up. A recent assessment of the administrative capacity of the PWAS¹⁸⁴ found that it is understaffed and that there are too few incentives for the volunteer members of the community committees, particularly because other government-supported programs give some compensation to members of their community-based committees. Therefore, few people volunteer to assist

¹⁸⁴ Kaputo Kiwele (2010).

with PWAS activities in those areas where other programs operate that pay their volunteers. This is exacerbated by the fact that community-based committees are to a large degree being run by the same people who move from one committee to the other. These activities restrict the time they have available to spend on their own livelihood activities.

353. If it is decided to use volunteers in any future safety net that covers substantially more beneficiaries than existing programs, then it will be necessary to keep building their capacity and maintaining a sustained partnership between the program staff and the community to ensure that the program is sustainable and to prevent interruptions to the delivery of benefits. A recent assessment of the sustainability of voluntarism in a theoretical nationwide cash transfer concluded that it would be sustainable if careful criteria were used to select volunteers, if tasks to be performed by volunteers were clearly defined so as to minimize the amount of program monitoring required by these volunteers, if they were given incentives to make their work less burdensome, and if there was constant interaction between the CWACs and the program office.¹⁸⁵

354. As Zambia moves towards expanding its safety net system, the government needs to invest in building capacity both in human resources and building systems to avoid excessive reliance on donors and any unnecessary interruptions to the delivery of benefits. The MCDMCH has the potential to target more beneficiaries and deliver more assistance than at present, but its institutional and human resource capacity needs to be strengthened, particularly as it relates to the targeting of beneficiaries, development of an integrated management information system and of a registry of beneficiaries.

¹⁸⁵ MCDMCH (2008) p. 10.

5.4 Targeting

355. Targeting is one of the key operational area that has a major impact on the administrative cost of the programs and, potentially, on their effectiveness in reducing poverty. Targeting is difficult in a country like Zambia, where:

- A large share of the population is poor, and there are few obvious differences between the conditions of the ultra-poor and the poor.
- Income levels are not known, and income proxies such as assets or dwelling characteristics are indistinguishable between poor households.
- Administrative capacity at the local level is limited, making it difficult to operate complex targeting systems.

356. The challenge is to find targeting mechanisms that can work within these constraints and that will do so at a reasonable cost.

357. The current social transfer programs in Zambia use different targeting methods to identify their beneficiaries, the most common of these being community-based targeting and categorical targeting (Table 41). The tendency to opt for these methods is explained by the fact that they are easy to administer and because many programs have defined a very narrow population group as their intended beneficiaries (for example, households headed by an elderly person caring for orphans, or households with a disabled member). In some programs (for example, the SCTS and the FISP), a combination of methods is used, the most common of which being categorical or geographic combined with community targeting.

Table 41: Different Poverty Targeting Methods

Targeting Method	Categorical	Geographical	Community Targeting	Self-targeting	Proxy Means Testing	Means test
Description	Based on, for example, age or orphanhood	All people who live in a designated areas are eligible	Community committee decides who should benefit	Open to everyone but benefits induce participation only by the poor	Score based on easily observed characteristic	Based on verified household income
Attractions	Administratively simple -Carries appeal of universality	-Administratively simple -No stigma	-Relies on local knowledge -Less costly	Administratively simple; -Politically supportable if they put people to work	-Is objective -Does not discourage work -less info required than means test	Extremely accurate
Drawbacks	Cannot distinguish between poor and non-poor	-Depends on accuracy of poverty/deprivation maps -Political lobby to include areas	-Local actors may have other incentives -May exacerbate exclusion	Stigmatization Administering public works not always simple	-Requires trained staff and information technology -Inherent inaccuracy in the formula	- Administratively demanding; -Requires a high level of literacy and documentation of transactions
Programs using these methods in Zambia	-Cash Transfers -Food Security Pack -STEPS OVC	-School feeding -SPLASH -PUSH -Cash transfers	-Cash transfers -STEPS /OVC -FISP	None	-Cash transfers -FISP -PUSH	None

358. It is not easy to rank targeting methods based on their performance. Coady et al (2004) assessed which method delivers the best results in relation to errors of inclusion. In the sample of programs that they reviewed, 80 percent of the variability in targeting performance as measured by errors of inclusion was due to differences *within* targeting methods and only 20 percent was due to differences *between* methods. Interventions that used means testing, geographic targeting, and self-selection based on a work requirement all succeeded in delivering more benefits to those in the bottom two quintiles than interventions that used self-selection based on consumption.

359. The success of any targeting method depends greatly on the implementation of a series of key steps. These steps include ensuring adequate dissemination of information about the program, registering households, verifying their information, determining their eligibility, enrolling them in the program, and recertifying or moving them out of the program. Ensuring the effective implementation of each step increases the likelihood of the method being effective. Deciding which method to use in any case depends not only on the technical strengths and weaknesses of each method but also on available data, budget constraints, implementation capacity, and political preferences. In Zambia, the absence of adequate data on the poverty status of those being covered by existing programs means that it is not possible to say definitively how well the various targeting instruments have performed.

360. It appears that *community targeting* (using the CWACs to identify beneficiaries of the cash transfers or of PWAS) has had some success in Zambia. A study by Kimetrica¹⁸⁶ of alternative methods of targeting found community-based targeting to be highly accurate in some locations but not so in others where it was no better than random selection. The study showed that this targeting approach is highly sensitive to the objectivity of the community members charged with its implementation.

¹⁸⁶ Kimetrica (2008)

361. The advantage of community-based targeting is that it relies on local people's knowledge of each other's individual circumstances, which may be more reliable and less costly to collect than other methods. The drawback is that it cannot operate successfully in urban areas as community members tend to know less about each other's poverty levels than is usually the case in rural areas.

362. The challenge with community targeting is to ensure fairness and to minimize manipulation and bias against potential beneficiaries. Although in the cash grant schemes, members of the CWACs cannot be selected as beneficiaries, it appears that there have been cases of manipulation that are impossible to measure. Beneficiaries with a grievance against may feel that reporting malpractice may result in them being removed from the register of beneficiaries, losing the opportunity to receive benefits in the future.¹⁸⁷

363. Some Sub-Saharan African countries have taken steps to combat the targeting errors that can arise when using community-based targeting. In Malawi, the social cash transfer program does not allow village heads to be on the community social protection committees that are in charge of targeting. It has also recently added a verification round to its targeting process, and extension workers, usually from outside the community, are now involved in verifying targeting decisions.¹⁸⁸ Zambia allows the village headman to be involved in selecting beneficiaries but has taken steps to create a confidential appeals process to ensure that targeting is as fair as possible. Other countries combine community targeting with other methods. For example, Kenya's cash transfer for OVC uses community-based targeting combined with categorical and proxy means testing.

364. *Categorical targeting* seems a rational approach in the Zambia context, especially for some very specific groups (such as grandparent-headed households, the elderly, or the disabled living on their own). It can be used in conjunction with community targeting in

¹⁸⁷ Harland (2011), p.9.

¹⁸⁸ Garcia and Moore (2012).

some cases to identify which of the elderly or disabled are destitute within a village, as opposed to those who live with families who can look after them.

365. In Zambia, the elderly, the disabled, and orphans seem to be the favorite categories for targeting in safety net programs. The current cash transfers schemes in Zambia target families with children under the age of 5, the elderly, and households headed by women or the elderly that also have orphans. OVC programs also use categorical targeted to provide assistance to orphans, even though the analysis in Chapter 2 has shown that these types of households do not have significantly higher rates of extreme poverty than the national average.

366. A simulation of the inclusion and exclusion errors that would result from targeting elderly or female-headed households containing orphans or households containing people with disabilities in Zambia shows large inclusion and exclusion errors. Under this categorical targeting approach about 56 percent of the non-extreme poor would be deemed to be eligible while 38 percent of the extreme poor would be excluded (Table 42).

**Table 42: Inclusion and Exclusion Errors using Categorical Targeting Criteria
(age, orphanhood, gender, and disability)**

Poverty status	Eligibility status		Total
	Eligible	Non-eligible	
Extreme Poor	44%	38%	39%
Non-extreme Poor	56%	62%	61%
Total	100%	100%	100%

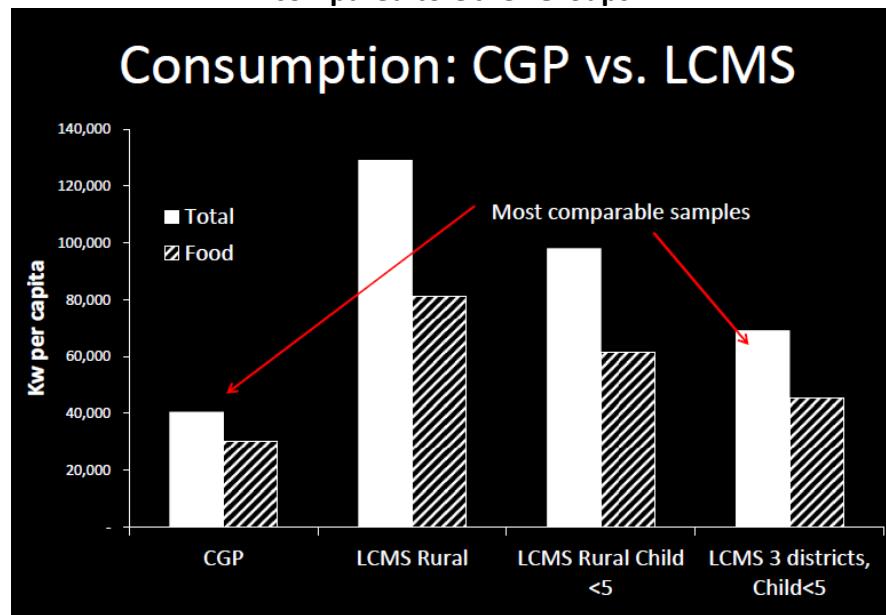
Source: World Bank estimations based on 2010 LCMS.

367. The Kimetrica study found that categorical targeting using one or two basic indicators (such as the gender or age of the head of household or the number of family members) is not much better than random targeting.¹⁸⁹

¹⁸⁹ Kimetrica (2008).

368. However, when categorical targeting is combined with other methods, such as geographic targeting as is the case in the Child Grant Program, it can yield better targeting outcomes. Recent estimates of the targeting accuracy of the Child Grant Program¹⁹⁰ have shown that the per capita consumption of beneficiary families is significantly less than the consumption of rural households in general and of households in the three districts where the program was implemented (Figure 21). This result is due to the fact that within districts the program has prioritized those communities with the worst malnutrition and infant mortality indicators.

Figure 21: Per Capita Consumption of Beneficiaries in the Child Grant Program compared to Other Groups



Source: Seidenfeld and Handa (2011b)

Notes: CGP = Child Grant Program, LCMS = Living Conditions Measurement Survey

369. *Geographic targeting* appears to make some sense given that it is administratively simple and is unlikely to stigmatize the poor as the non-poor in the selected areas would also receive benefits. However, it needs to be based on small area estimation of poverty or multiple kinds of deprivation. The drawback with geographical targeting is that politicians in

¹⁹⁰ Seidenfeld and Handa (2011b).

each constituency are likely to lobby to have their districts included. This may mean that fixed number of districts within each province may benefit rather than the poorest districts.

370. In Zambia, geographical targeting based on the district level alone will yield large inclusion and exclusion errors. As shown in Chapter 2, provincial and district-wide poverty rates often mask extreme heterogeneity at lower levels. For example, there can be large differences in poverty between constituencies within districts and between wards within the same constituency. It is possible that small area estimates of poverty can identify pockets of high incidence of extreme poverty. Priority should be given to developing a poverty map using the 2010 Census and LCMS. An updated poverty map would programs to target only some areas of the country or to allocate spaces in the program among constituencies, or prioritize the poorest areas as part of the rollout of a national safety net system.

371. *Proxy means testing* would appear to have limited potential, because of the very small variation in easy observable characteristics between households in the bottom 60 percent of the population – especially in rural areas. This model might be more suitable for urban areas as long as household information can be verified for all applicants or at least for a sample to discourage misreporting.

372. *Self-targeting* would appear to be an attractive option in a country like Zambia where it is difficult to distinguish the able-bodied poor at the village level. One useful way to use self-targeting is in public works programs where wages are set at a level lower than the minimum wage so as to ensure that only the poor apply. The problem with this in the Zambian context where a high percentage of the population is poor is that these programs can attract too many people so some sort of pre-screening at individual level might also be required. For self-targeting to function well, the payment level would need to be very low and it would require only administrative capacity to organize the program.

373. The decision on the appropriate targeting mechanism will depend on numerous factors including the type of program, how much institutional capacity is available, the economic cost of applying a particular method, and the political feasibility of adopting it. For an integrated national safety net system, the government might consider combining several methods as follows: (i) geographical targeting to enroll all households in those constituencies/wards with very high extreme poverty prevalence and severity; (ii) community-based targeting in constituencies with moderate poverty prevalence and severity; and (iii) a verified proxy means test in constituencies with low prevalence of poverty but high density, including in those in urban areas.

374. Regardless of which the targeting methods are used, it is important to harmonize the targeting mechanisms used in similar programs that target the extreme poor to ensure that eligibility rules are very clearly defined for both beneficiaries and program implementers. It is equally important to put in place a complaints and appeals mechanism to re-assess a beneficiary's eligibility to reduce inclusion and exclusion errors. Also, establishing only one registry of beneficiaries for all programs would help programs to identify potential beneficiaries, would make it easier to scale up programs, and would reduce overlap and duplication.

5.5 A Single Registry of Beneficiaries and an Integrated Management Information System

375. Zambia may consider as one of the key areas for strengthening institutional capacity to administer safety net programs the establishment of a single registry of beneficiaries. A single registry could consolidate key information on potential programs beneficiaries into a single common database. This would: (i) help to identify the poor and vulnerable and make it possible for programs to identify their target population quickly; (ii) provide consolidated information on program beneficiaries to policymakers; (ii) enable cross-checking of beneficiary lists to reduce the possibility of double dipping between programs; (iii)

strengthen the cross-check verification of beneficiaries' identities by linking the single registry with other administrative databases including the central civil registration system; and (iv) act as a foundation for creating other common delivery systems, including payment systems, which would reduce the costs associated with delivering benefits.

376. The key steps in developing a single registry include: (i) identification of the population potentially eligible for various safety net programs and determination of the information to be collected; (ii) outreach and communication of information about programs features and objectives, benefits, registration, eligibility rules; and (iii) collection of information from potential beneficiaries and registration; (iv) system development to capture, verify information, and transfer data between the registry and individual programs; and (v) data management and maintenance. Being included in the registry does not automatically guarantee program enrollment. Each program could use its own criteria to screen potential eligible beneficiaries. Good practice has shown that a registry must be inclusive so that all individuals who consider themselves as poor could register. The lack of proper identification (ID card, tax number, birth certificate, or drivers' license) should not preclude potential beneficiaries from registering. Rather the registry could facilitate poor people obtaining identification. The key element is for the registry to provide each family with a unique identification code (registry ID) that would allow data integration among different systems and databases.

377. Several countries have developed this sort of registry to identify beneficiaries of safety net programs including Brazil, Colombia, the Dominican Republic, El Salvador, and Costa Rica. In Brazil, the Ministry of Social Development and the NGO Fight against Hunger administers the *Cadastro Unico* (CADÚNICO), a central registry aimed at identifying all poor and vulnerable families to facilitate the distribution of federal social assistance programs. In 2011 CADÚNICO registered about 20 million families (one-third of Brazilian population), of whom 13 million families are beneficiaries of the *Bolsa Familia* cash transfer program, 4 million families are beneficiaries of *Prestacao Continuada*, a social pension, and another 8

million are benefitting from other social assistance programs (Box 7). The Government of Zambia might wish to consider building a registry that integrates the beneficiary databases of the existing PWAS, FSP, and OVC systems with an expanded version of the SCTS.

Box 7: Building the National Registry in Brazil (CADÚNICO)

CADÚNICO was created in 2001 for the *Bolsa Escola*, a scholarship program. In 2003, the CADÚNICO - with 5.5 million families enrolled in 5,190 municipalities - became the backbone for the establishment of the *Bolsa Família* conditional cash transfers program that unified the main four social assistance programs in Brazil. In 2005, the government started the process of transforming the CADÚNICO from a database of *Bolsa Família* applicants to a database of the poor and vulnerable population in Brazil. In 2007, the government adopted the CADÚNICO law that defined its goals, processes, and operational rules and reaffirmed its role as a single entry point for all federal social assistance programs.

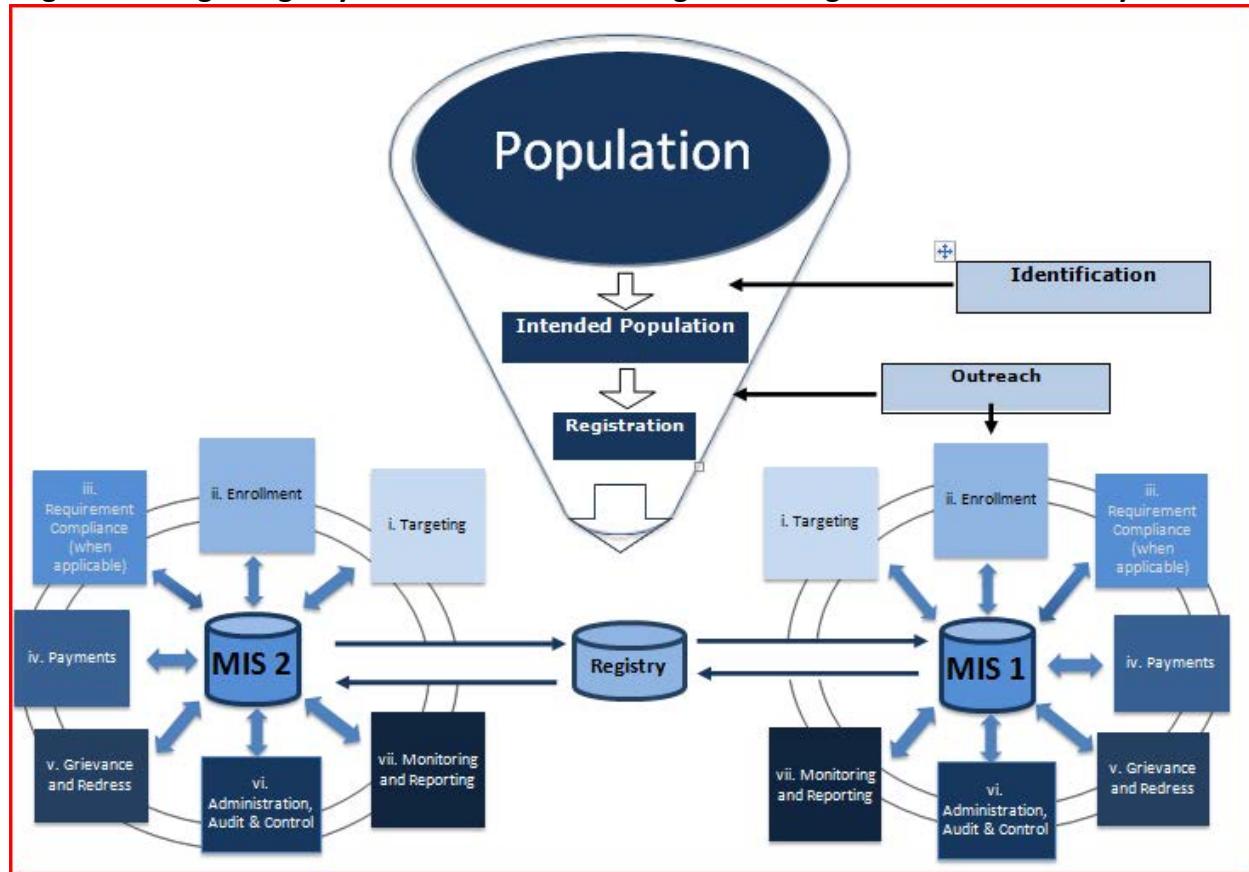
The current CADÚNICO can provide timely and updated information about potential beneficiaries for social assistance programs (families are recertified every 24 month). In 2011, the CADÚNICO MIS became an online tool with pre-defined security levels for data entry and maintenance to avoid data manipulation. The registry allows:

1. Consultation about families in the national database at the municipality level through Query Modules.
2. Inclusion, updating, or removal of individuals and families in the national database of the single registry through the Maintenance Module.
3. Cross-check verification to identify inconsistencies or missing information for the applicants.
4. Interviewers' verification that provides timely information about the interviewer or data entry clerk for program supervisors.
5. Identification of potential beneficiaries by the agencies implementing social assistance programs.
6. Obtaining family history providing information about families and payments received from government programs over time.
7. Generating monthly reports and descriptive statistics about the population in the CADÚNICO.

378. Another building block for strengthening institutional capacity in the MCDMCH and other agencies implementing safety net programs is the development of an integrated management information system (MIS) at the program level or for several programs under the same ministry. Each safety net program has to process a series of routine transactions including the targeting and enrollment of beneficiaries, the calculation of benefits, payments and reconciliations, appeals and grievances, family history updates, and monitoring and reporting. All of these processes can be done efficiently and in real time with the support of an integrated MIS.

379. Once both the registry and programs MIS become fully operational, they should be able to communicate and exchange information regarding household updates in real time as shown in Figure 22.

Figure 22: Single Registry of Beneficiaries and Program Management Information System



Source: Leite et al (2012).

Note: MIS = Management Information System.

CHAPTER VI: Key Strategic Options for Consideration

380. This study set out to address three questions:

- What role could spending on transfer programs play in Zambia's national development strategy over the next decade or so?
- Which aspects of poverty does it make the most sense to address using transfer programs as opposed to other public policy instruments?
- Which programs represent the most cost-effective choices for reducing poverty?

381. The objective is not to be prescriptive but to lay out options and choices. The government currently faces a number of expenditure choices, including proposals to expand cash transfers, school feeding, agricultural input support, and a possible old age pension. It is hoped that this analysis will help to inform that debate as well as the forthcoming formulation of a National Social Protection Policy.

382. The report presents two sets of findings: the first has to do with a vision and options for a national safety net system to reduce extreme poverty more rapidly in the coming 10 to 20 years. The second addresses short- to medium-term steps that could be taken within the next year or two to get onto the path towards a national system and to increase the effectiveness of existing programs.

6.1 The Strategic Role of Safety Nets in Reducing Poverty

383. The fundamental solution to poverty in the long run in Zambia lies in increasing returns to the poor's labor – both off and on the farm. This in turn requires better integration of markets, the transformation of agriculture, and the expansion of employment opportunities. It will also require that the poor have the human and physical capital needed

to take advantage of opportunities as they arise. It is therefore rational for Zambia's development strategy to continue to focus primarily on raising productivity, encouraging investment, and building infrastructure and human capital.

384. However there are two fundamental problems. First, this process of transformation is not taking place quickly enough to benefit a large number of Zambians. As a result, about 40 percent of the population still does not have enough to eat regularly. Second, no matter what trajectory of growth is pursued, there will remain – as in all societies – a core of destitute people who cannot fend for themselves, and Zambia has now reached the point at which it can afford to support this group more systematically than it has in the past.

385. Inequality remains extremely high. Amid Zambia's relative prosperity, about 5 million people are currently living on less than US\$0.50 a day. In addition, almost 48 percent of children under the age of 5 are chronically malnourished or stunted, a situation that has not changed much since the early 1990s. Significantly increasing expenditure on productive safety net programs will have an immediate impact on reducing extreme poverty rates, while also raising the long-term incomes of the poor. It needs to be emphasized that this approach is proposed *as well as*, not *instead of*, the other measures required to increase the productivity of the poor. Nevertheless, it would not cost very much and would have a more rapid impact than the other interventions.

386. In terms of Zambia's national development strategy, the logical role for larger-scale transfers would be to *reduce inequality* by supporting the destitute and by introducing a systematic program of productive transfers to the poorest who have been left behind by growth – the large number of Zambians who have no assets or skills and/or who live in resource-poor and remote areas that have not yet been integrated into the wider economy.

387. High and persistent inequality in Zambia provides a strong underlying conceptual rationale for spending more money on safety net transfers. There are two good arguments

for this. The first is that a relatively small amount taken from the top of the income distribution can result in a relatively large consumption increase for the poorest. The second is that persistent high inequality provides the strongest evidence that growth is not reaching the poorest and needs to be supplemented with other approaches, of which productive safety net transfers are among the most promising.

388. The poor lack the assets and capabilities to take advantage of the opportunities created by growth. Well-designed safety net programs can help to overcome these obstacles, for example, by providing the extreme poor with the small amounts of cash necessary to become engaged in the cash economy, enabling them to build the household and business assets on which their livelihoods are based, and/or linking transfers to investments in human capital – education, skills, and better health and nutrition.

389. There may be a time element to how we think of large-scale spending on safety net transfers to reduce food poverty in Zambia. If the hypothesis is correct that Zambia is poised on the edge of a decline in extreme poverty over the coming decades, then policymakers might see a substantial part of the need to invest in safety nets as *transitional* in the interval before this decline occurs. This might justify larger spending than otherwise on transfers in the medium term as a transitional strategy while Zambia awaits the positive effects of agricultural transformation, market integration, higher education levels, and the spread of the recent robust growth through the economy.

390. At the household level, this might mean providing bridging support to many of the potentially productive poor until the returns to their labor increase. However, for bridging of this sort to work, the safety net support provided would have to be *productive*, in the sense that it would somehow increase the returns to the poor's labor in the long run. Some examples of productive safety net interventions would be providing fertilizer packs to increase recipients' agricultural productivity, encouraging the acquisition of education and skills, or improving community infrastructure by means of public works programs.

391. It should be emphasized that Zambia will still need a permanent program of safety nets for the poor and destitute. However, if the wider-scale program of productive transfers – linked to improved education, health, and nutrition outcomes, as in Latin America – is adopted, the need for critical coverage of the population who do not have enough to eat should decline over time.

What Aspects of Poverty to Address with Transfers?

392. Based on the analysis in Chapter 2, there are several attributes of poverty that it might make sense to target with transfers:

- *Addressing the low productivity of labor* among the poor by providing complementary inputs (such as cash for working capital or agricultural inputs), using underemployed labor (for example, in public works), or investing in human capital.
- *Helping families to escape the intergenerational poverty trap*, especially with regard to malnutrition and HIV/AIDS, by mitigating the long-term productivity effects of early childhood malnutrition or by supporting poor HIV-affected households until children have been educated.
- *Mitigating seasonal impoverishment*. Seasonality is a significant part of food poverty in Zambia and should almost certainly be the focus of some safety net interventions.
- *Helping families to cope with one-off covariate shocks*, particularly drought and food price increases, which will continue to be experienced in Zambia. The implication is that some elements of a national safety net system should be capable of being scaled up in response to these large-scale shocks and then scaled back down after they are over.

393. These objectives are not mutually exclusive. A national strategy could address all of them to varying degrees, but it would probably make sense to concentrate on one or two overarching objectives. The forthcoming formulation of a National Social Protection Policy provides an opportunity to debate the most appropriate mix between them.

Who Should Benefit from Transfers?

394. Clearly it is not possible, nor desirable, to provide all 7.9 million poor Zambians with transfers. To do so would be expensive (around US\$350 to 400 million per annum) and would distort incentives and undermine broader development efforts. Therefore, the crucial question is which groups among the poor it might make the most sense to target.

395. Potential beneficiaries tend to fall into one of three categories: (i) the intrinsically destitute (such as the disabled, the abandoned elderly, and orphan-headed households) who will need support no matter what; (ii) households in inherently low-consumption situations such as those stuck in very-low productivity areas of the country or with very small landholdings or very few assets; and (iii) the seasonally poor whose consumption from subsistence agriculture may be sufficient during much of the year but who fall into extreme poverty annually during the fallow season.

396. The first two groups constitute a large part of the extreme poor and probably account for anything between 10 and 20 percent of the population. Given fiscal constraints, these are the people whom it might make sense to target first with a national safety net system. It is a potentially manageable level of coverage and constitutes the group who are so far below the food poverty line that their consumption is inadequate without some form of supplementary support.¹⁹¹ The third group (those who are short of food during the lean

¹⁹¹ Of course what constitutes extreme poverty requires further debate as the strategy is developed. In Zambia, there is a big difference – in scale – between selecting the bottom 10 percent (1.3 million people) and all those below the food poverty line (about 5.1 million people).

season) can be supported using a more focused transfer of cash or food for just four months of the year.

397. An argument could be made for extending the coverage of a national safety net strategy more widely to cover the transitionally poor as well. These are households living just below the food poverty line now but who can expect their standards of living to rise within the next decade as a result of rural economic growth and better integration with markets. This would cost more in safety net spending in the medium term. However, not only would it be possible to scale this expenditure down over time, but it would also result in lifting a substantial proportion of the population out of extreme poverty more quickly. Furthermore, at the end of this transition, Zambia would probably be in a stronger fiscal position and might be able to afford more permanent universal programs – such as a universal old age pension or universal school feeding – which do not appear to be cost-effective ways of addressing extreme poverty at the moment.

6.2 Possible Scale and Shape of a Long-term National Safety Net System

398. It would make sense to move towards an integrated social safety net system for Zambia instead of the current patchwork of independent and uncoordinated programs. The system could have three parts: (i) expanding cash transfers for the most vulnerable; (ii) employing the able-bodied poor on a larger scale on routine maintenance and environmental public works; and (iii) building in more productive and promotive aspects to transfer programs so that they can have a more permanent impact in terms of raising incomes. The balance between program instruments depends on how widely safety nets are to be used to reduce poverty and on which groups within the population are to be targeted.

399. *Cash Transfers.* Zambia already has a solid base of cash transfer programs, which could be expanded at a faster rate and on a larger scale than at present. There is no other

way of easily supporting the destitute as cash transfers are the cheapest form of intervention to deliver and require the least administrative and logistical capacity. They also directly inject resources into the lowest level of the economy where they have an immediate positive multiplier effect at the village level. The problem of course is how best to target these transfers given the large number of extreme poor, the lack of noticeable distinctions between them, and the fact that everyone at the village level would benefit from having additional cash.

400. *Public Works Program.* Employment-based transfers represent a potentially promising method for increasing transfers to the able-bodied poor that is not being fully exploited in Zambia. A public works program has several major advantages. It can be scaled up and down in response to need. Over time it can be expanded to provide significant numbers of the poor with periodic transfers (500,000 people employed annually is not unrealistic over the medium term). If well-designed, public works programs have the additional benefit of raising incomes in the longer term through such activities as reforestation, tree-planting, and improved maintenance of rural and urban roads.

401. *Increasing the Promotive Aspects of Transfers.* All transfers are productive. Evidence worldwide and from Zambia's SCTS has shown that households use even small unconditional cash transfers to send their children to school, to attend health clinics, and to finance small businesses or agricultural production. However, their developmental impact can be much greater with the right choice of program design, for example, by: (i) making receipt of transfers conditional on participating in programs to reduce child malnutrition; (ii) requiring beneficiaries to take other actions that build the human capital of their families in return for receiving the transfers such as –ensuring that pregnant women and children get regular health checks, ensuring their children are vaccinated, attending HIV prevention training, or keeping their children in school; (iii) directly increasing agricultural productivity by linking recipients of transfers to extension support or revolving agricultural credit; and (iv) ensuring that public works schemes that employ the poorest have a transformational

impact on the areas in which they live through better soil management, irrigation, and reforestation (as in programs in India and Ethiopia). Making safety net programs more explicitly productive prevents these transfers as being seen as handouts, avoids the stigmatization of beneficiaries, increases social and political support for programs, and builds human capital and thus breaks the cycle of intergenerational poverty.

402. These three components – cash transfers, public works, and more promotive use of transfers – could be combined to form the core of a unified national safety net system with whatever scale of coverage and program mix that the government feels is appropriate. The following are three illustrative models for Zambia.

403. *Model A – The Bottom 5-10 percent.* If the government wishes to pursue a limited approach to using safety net programs, then it is probably best, and simplest, to *categorically* target cash grants to households in various specific groups (child- and grand-parent-headed households, OVCs, the elderly, and the severely disabled who do not live in households that can look after them.). It is not known with certainty what proportion of the population falls into these categories, but rough estimates suggest it is in the order of 5 to 10 percent.

404. This approach has several attractions. It is likely to be readily socially and politically acceptable, the beneficiary category is easy to understand, and the target group can be fairly easily identified using community-based targeting (because people in a village know who the destitute are and who falls into clearly defined categorical groups). It is also relatively cheap and easy to deliver.

405. Such a program would be nationwide in coverage. Targeting could be done using the model that has already been developed and used successfully by the Social Cash Transfer Scheme that uses Community Welfare Assistance Committees. The drawback is that it will be more difficult to use community targeting as coverage spreads into larger areas (where

people do not know the status of their neighbors). However, fortunately Zambia has a relatively well-developed nationwide network of social welfare officers.

406. Spreading the coverage wider than the categorical groups in Model A starts to present real targeting challenges. It would probably require the use of some elements of geographical targeting and a stronger link with productive aspect of transfers.

407. *Model B – The Bottom 15 to 20 percent.* If the government wanted to use safety net transfers to more rapidly reduce extreme poverty, then it might decide to target the poorest 15 to 20 percent of the population, who – as shown in Chapter 2 – have much lower consumption levels than the poor in general.

408. The simplest version of this approach would be to use Model A, above, for the bottom 5 to 10 percent of the population and then expand coverage to wider categorical groups in selected very poor rural areas of the country. This could involve giving transfers universally to, say, all households with children or all elderly persons in those districts with the highest proportions of people living below the food poverty line. (This is essentially the model being followed in the recent expansion of the Social Cash Transfer Scheme.)

409. The rationale for using universal categorical groups in poor areas is that: (i) it is much easier to target on this basis than trying to identify the poorest by their consumption levels and (ii) it is easier to gain political and social acceptance for a scheme that benefits clearly defined groups. It is also flexible enough to enable policymakers to cap expenditure on and coverage of the program by adjusting the number of districts covered.

410. With an expansion to a larger coverage, it will be important to increase the use of co-responsibilities and of promotive aspects for those beneficiaries who are not completely destitute. Also, as the level of coverage expands beyond the truly destitute, it is likely that benefits will only need to be provided for the four to six month lean season to some

proportion of households that have able-bodied adults and thus do not fall under the Model A part of the program.¹⁹²

411. Challenges with this approach include uncertainty about how well geographical targeting will correspond to the distribution of the extreme poor throughout Zambia and the potential political difficulties involved in selecting some districts while excluding others. As discussed below (Section 6.3), a priority should be to carry out small-area poverty mapping using the 2010 LCMS data to determine how effective geographic targeting would be. The political issue could be solved by applying part of the program (Model A) nationwide and adjusting the intensity of support between districts for the expanded coverage of the able-bodied poor.

412. *Model C – The Bottom 25 percent or More.* If the government were to choose to pursue an aggressive strategy to reduce extreme poverty using productive safety net transfers in the coming decade, then a fundamentally different approach is required. This would put more emphasis on self-targeting and on productive transfers and would probably provide benefits to the middle-extreme-poor in addition to the absolute poorest who would be covered in Models A and B.

413. The approach would be essentially the same as Model B for the poorest 10 to 15 percent of the population but would also provide a program of public works employment and agricultural productivity-enhancing transfer schemes for the additional beneficiaries. To increase political acceptability and contain costs, benefits would only be provided for four to six months of the year to most of the additional beneficiaries.

¹⁹² What proportion of the poorest 20 percent could be adequately supported with only a lean season transfer is not known with certainty. This would have to be tested and monitored during implementation and adjusted as the program expanded.

414. Model C would be more expensive, partly because public works and promotive programs cost more to deliver than do pure cash transfers. However, some of this could be financed from resources that are already being spent on environmental or road maintenance programs. Also, additional benefits would be generated in return for this greater expenditure, including greater agricultural output and the rural and urban infrastructure built or maintained under the PWP.

415. Table 43 shows what a national safety net system with these components might cost depending on how many of the poor were targeted.

Table 43: Possible Costs of the National Safety Net System

	Beneficiaries Individuals	Beneficiaries Households	Approximate Annual Cost ^{a/} Kwacha billions	Approximate Annual Cost ^{a/} US\$ millions
Low Variant (Model A - Bottom 5-10% of the population) ^{b/}				
<i>Social Cash Transfer Component (Destitute)</i>	980,000	196,000	183	36.8
Total	980,000	196,000	183	36.8
Medium Variant (Model B - Bottom 15-20%) ^{c/}				
<i>Social Cash Transfer Component (Destitute)</i>	980,000	196,000	192	38.4
<i>SCTS Component (Categorical Groups in Poor Areas)</i>	1,310,000	262,000	174	34.7
Total	2,293,000	458,000	366	73.2
High Variant (Model C - Bottom 25%) ^{d/}				
<i>Social Cash Transfer Component (Destitute)</i>	980,000	196,000	192	38.4
<i>SCTS Component (Categorical Groups in Poor Areas)</i>	1,310,000	262,000	174	34.7
<i>Public Works/Agricultural Component</i>	985,000	196,000	179	35.8
Total	3,275,000	654,000	545	109

Notes: a/ Based very roughly on a transfer of 50 percent of the average gap below the food poverty line (K.18,000 per adult equivalent per month; or K.75,600 per household per month), achieving 47 percent of the public works transfer in the form of wages, and overhead delivery costs of 15 percent for cash transfers. Households are estimated to consist of 4.2 adult equivalents. Illustrative coverage and cost calculations are based on b/ 7.5 percent of the population; c/ 17.5 percent; and d/ 25 percent of the population. Benefits provided 12 months of the year for destitute (Model A), and 50 percent of marginal additional population covered in Model B; and only five months of the year for the other 50 percent of the marginal population covered under Model B, and for households covered under the public works option.

416. The total cost of such a program could range between US\$37 to \$102 million per year (or K.183 to 506 billion) to cover between 7.5 to 25 percent of the poorest population. This would be the equivalent of 0.4 to 0.9 percent of GDP. The actual costs of reaching this level of coverage could be higher if the program were not well-targeted, but conversely they could be lower if economies of scale could be achieved in the cash transfer component and/or if the public works component cold be more labor-intensive, both of which would reduce the overhead costs involved in delivering transfers.

417. These approaches are not mutually exclusive. Two measures make sense no matter what approach is adopted for a national system – ensuring that transfers lead to better childhood nutrition outcomes and making greater use of public employment for the able-bodied to speed poverty reduction.

418. *Linking Transfers to Nutrition.* Given the high levels of child malnutrition in Zambia, it makes sense to develop synergies between the national safety net system and the National Nutrition Program. The government is already in the process of developing this multi-sectoral program as part of the National Food and Nutrition Strategic Plan targeted to all children during their critical first 1,000 days of life.

419. The MCDMCH is well positioned to take the lead in implementing a range of community-based nutrition activities using platforms already created by its Social Cash Transfer Scheme. The kind of nutrition interventions that it would be suitable to deliver through such a community-based platform include growth monitoring and promotion (GMP), including referral services to treat children with severe acute malnutrition, the promotion of exclusive breastfeeding and appropriate complementary feeding, the early identification of pregnant women to provide them with ante-natal care services and dietary counseling, and the provision of education on reproductive health, hygiene, and sanitation to adolescent girls. All of these services are preventive and critical for preventing chronic under-nutrition.

420. *Greater Employment of the Poor on Public Works.* Even if safety nets are to be used only to support the most destitute (in Models A or B), it still makes sense to add some version of expanded public employment for the able-bodied poor in Zambia using existing resources but with more pro-poor implementation/labor arrangements. One advantage of this approach is that it may be possible to finance a large share of the program using existing expenditures (for example, by using maintenance budgets to employ the seasonally poor on roads near their villages). As discussed in Chapter 3, there are very high economic

returns to maintaining and improving the existing road network, and the money that would be spent anyway on maintaining village-level and urban roads could employ very large numbers of the able-bodied poor in temporary jobs. Self-targeting induced by offering a wage rate below the market level is essential because there is no other effective way of distinguishing the able-bodied poor from the non-poor in Zambia.

421. The key would be to focus on large-scale routine, repetitive works (rather than individual capital projects) to sustain the flow of employment transfers to households and communities over time and to avoid having to build up and manage a large stock of complex capital projects. This would also mean that existing institutional capacity (such as district and provincial works and maintenance management systems) could be used to manage these operations rather than having to create new systems. It might also be possible to use the existing PUSH framework to employ more of the urban and peri-urban poor. As noted in Chapter 3, further discussion will be needed about how best to ensure that the employment is provided during the fallow agricultural season and about whether to provide recipients with vouchers and cash or food (in the event of food shortages).

6.3 Short to Medium-term Measures

422. Based on the analysis of existing programs in Chapter 3, this section provides suggestions on measures that the government might consider taking in the coming one or two years that would move towards a more unified national safety net system in Zambia and increase the effectiveness of existing programs.

The Main Programs

423. *Social Cash Transfer Scheme.* The available evidence suggests that the existing SCTS has been an effective way of making transfers to the poorest, and it has the additional benefit of having established a sound institutional framework and delivery system. It makes

sense to continue the phased expansion of the program in the coming years while focusing more on: (i) building a monitoring and evaluation capacity; (ii) developing a single beneficiary registry that can be used for multiple programs; (iii) paying transfers electronically; (iv) examining ways of reducing overhead costs relative to the value of benefits delivered over time; and (v) refining the targeting model for the nationwide roll-out the scheme based on the ongoing evaluation of its targeting methods (expected in July 2013).

424. It would make sense to link the program more proactively with nutrition interventions (see discussion above). It would also make sense to slowly begin to use the same targeting methods, beneficiary registry, and payment system that the SCTS uses for all other programs that support the destitute (such as the PWAS, the FSP, the OVC program, and any successor to SPLASH).

425. *Home Grown School Feeding Program.* It is not clear what the costs and cost-effectiveness of the vastly expanded school feeding program are going to be or whether the financial resources (about US\$20 million per annum) will be available to sustain it. Therefore, there is a need to carefully assess the coverage, cost, and targeting options for the further expansion of school feeding. School feeding has undeniable educational benefits, but providing a targeted cash transfer to the same households may be a more effective way of reducing extreme poverty with lower delivery costs. If the government decides to continue with the expansion, then it continues to make sense to target it first to those districts with the deepest poverty, greatest food insecurity, and highest school dropout rates. It might be prudent to make any further expansion contingent on a more rigorous assessment of the program's educational impact and to postpone it until more financial resources become available.

426. *Food Security Pack and the FISP.* There are good arguments for continuing to use agricultural productivity support (including the selective use of free or subsidized inputs) as

one element of transfers for the poorest. First, many of them are subsistence farmers, second, there is considerable multiplier potential, and third, there is a lack of credit markets for poor farmers. However, it would be better if agricultural transfers were more effective in raising household output and consumption than they appear to have been so far as well as being more accurately targeted.

427. There is not enough evidence to assess whether the Food Security Pack has been a cost-effective way of addressing poverty to date. The FSP has clearly suffered from implementation difficulties. It would be advisable to conduct a rigorous and independent evaluation of the program's impact on the food consumption and crop production of beneficiary households before making any decision about expanding it. If the government decides to go ahead with the expansion, it may wish to consider strengthening the program by tying it more closely to the provision of agricultural extension services. Finally, the program design is complex, and significant investments are likely to be needed to increase implementation capacity if it is to succeed.

428. *Farmers' Input Support Program*. The government might consider combining a slimmed down and more poverty-targeted version of the FISP with the FSP into a single program with one component that is explicitly targeted to very low-income farmers. Given the fact that most of the benefits of the FISP go to the non-poor (Chapter 3), it would seem to make sense to significantly reduce the scale of coverage, focusing only on lower-income farmers, and shifting to giving vouchers instead of inputs.

429. *SPLASH/Vulnerable Group Feeding*. The program appears to have been successful but suffered from the problem of extreme donor dependency. If a version of this program is extended, it might make sense to merge it with the National Nutrition Program (above) and the proposed expanded SCTS as part of a more unified system of transfers. If an ART/HIV component is to be retained, it should include a poverty filter – along the lines of the SCTS's community-based targeting model – to identify only those in very poor households.

430. *Public Works and PUSH.* No rigorous evaluation of PUSH has been done. It appears to have been successful in employing the poor, although its scale is small relative to need and its overheads are relatively high. A review of PUSH operations and capacity should be combined with an assessment of options for gearing up a national-scale employment-based scheme, including a review of the experience of public works programs for the poor in other countries, to assess what role PUSH might play in its implementation.

431. *OVC and PLWH Support Programs.* These programs provide critical social-psychological and community support, but the material and consumption support elements could be more effective if they were integrated into the single national cash transfer program suggested above. It may also be appropriate to extend the OVC program's registration system and beneficiary database to cover the whole integrated program of transfers for the most vulnerable.

432. *OVC Bursary Scheme.* It might make sense to consider integrating the various different OVC bursary programs provided by the government and NGOs into a single scheme using the same targeting mechanism. The government might also consider linking it to the SCTS since, in the districts where the cash transfer program operates, many of these children are likely to come from households that are also eligible for cash transfers.

Other Transfers

433. *Tertiary Bursary Scheme.* We suggest shifting to a true student loan scheme for better-off students (who constitute the majority) and making greater use of free bursaries for promising students from low-income households or areas.

434. *Food Reserve Agency.* FRA spending could become more equitable if the scale of FRA buying was reduced and the price support was lowered to a level closer to the commercial price. If large reserves are to be maintained, the government might wish to consider how to

dispose of FRA surpluses in a way that helps the poorest. One option might be to release surpluses onto the market in the fallow season to hold down market price rises. Other possibilities might be to sell maize at subsidized prices to the poorest or to use maize as the in-kind benefit offered in public works or food-based safety net programs.

435. *Universal Old Age Pension.* Since a universal old age pension is not a particularly cost-effective way of reaching the poorest, the government may wish to defer making a decision on whether to introduce one until it is clear how much money will be available after financing these core transfer programs.

6.4 Design, Institutional, Political Economy, and Financial Issues

Program Design Issues

436. There are a number of cross-cutting design considerations that are relevant whatever national safety net system is adopted.

- Transfers need to be adequate, sustained, and predictable to have an impact on poverty levels and on the behavior and expectations of beneficiaries.
- At the aggregate level, the system needs to be capable of being scaled up or scaled down in response to the level of need, including seasonality, and in response to the availability of fiscal resources.
- Many programs have suffered from unpredictable financing and rapid expansion and contraction and/or been short-lived because of their dependence on external assistance. Moving to a unified national system with a single source of financing would help to avoid this problem.

437. *Graduation.* Wherever possible, safety net programs should aim to enable their beneficiaries to graduate from the program. However three notes of caution are in order. First, given the depth of household poverty in Zambia, many beneficiaries, even among the productive poor, will not be able to graduate quickly, so support will have to be sustained over a period of years before the permanent income effects are achieved. Second, the process of graduation has proven difficult in many countries, and ensuring that transfer recipients can also benefit from the necessary complementary programs (such as agricultural support or micro-finance) is often not easy. Third, it is not realistic to expect some of the most destitute categorical groups to graduate. While some beneficiaries will graduate and the pool of beneficiaries will change over time, there will always be a group of destitute people needing support, reinforcing the need for a continuous national safety net system.

438. *Targeting.* How best to target the suggested national system will be an important decision for the government to make. The poor are very homogenous and hard to describe, since traditional household characteristics (assets, type of economic activity, education, or the gender of the household head) explain very little of the observed difference in households' consumption. Therefore, it might make sense to use Community Welfare Assistance Committees to identify the neediest households at the local level and to use self-targeting of the able-bodied poor in any public work component. There has already been a lot of good analysis of options in the context of the SCTS, and fortunately a robust framework exists in Zambia for debating these choices. The ongoing evaluation and targeting assessment of the SCTS are both likely to yield a thorough assessment of the targeting methods that are currently being used, and this along with the recent LCMS data should make it possible to reassess the targeting criteria within the coming year.

439. Geographical targeting can also be a good way to identify potential beneficiaries, but it needs to be focused at a fairly low level. If the government decides to use geographical targeting in any future transfer programs, we suggest that there should first be a rigorous

analysis of local-level poverty rates and/or the development of an index of multiple kinds of deprivation on the basis of the 2010 LCMS and Census data using small-area estimation techniques.

440. Categorical targeting has limitations in the Zambian context because, as the analysis in Chapter 2 has shown, using labor-constrained households, those that include elderly members, or those that are headed by females is not an effective way to reach the very poor.¹⁹³ Similarly it is not effective to use orphans or people with HIV/AIDS living alone as proxies for poverty as these groups are spread homogenously across the income deciles. Categorical targeting may thus need to be combined with some form of community selection to identify the truly destitute within these categories and/or combined with geographical targeting of the poorest areas.

441. *Conditional Transfers.* Whether cash transfers should be made conditional or not is a matter of some debate. Experience with more mature cash transfer programs in Latin America has shown that CCTs can have a significant impact on school attendance and use of maternal and child health services by the poor and can increase the amount of pressure that communities put on agencies to provide quality services. Attaching such conditions or co-responsibilities also prevents transfers as being seen as handouts, increases social and political support for programs, and reduces the stigmatization of beneficiaries by making them co-responsible for their own welfare. They also have some disadvantages. For example, it is not desirable to put barriers in the way of households receiving support if they are truly destitute. Also, it only makes sense to attach conditions to transfers if the necessary social services are available and of decent quality, which is often not the case in many of the remote areas where the poorest people live. The most rational approach in Zambia would seem to be to do some analytical work on which kinds of behavior are most conducive to such conditions and to start by experimenting with soft (non-binding)

¹⁹³ Kimetrica (2008).

conditions and only introducing more rigorous requirements as the safety net system is expanded beyond the very poorest 10 to 15 percent of the population.

442. *Cash versus In-kind Transfers.* The question arises whether benefits should be provided in cash or in kind. Policymakers are likely to prefer cash in most cases, as it is cheaper to deliver and gives the poor the flexibility to choose to spend it on what they most need. However, in some cases food will need to be provided because markets do not function effectively or because food is just not available for purchase at any reasonable price due to seasonal pre-harvest shortages. Agricultural input programs will also continue to play an important role in increasing the productivity of the poor, but it may make more sense to provide recipients with vouchers than to have to deal with the logistics of providing fertilizer directly.

Political Economy Considerations

443. In political economy terms, the government may wish to use safety net spending to achieve one or two clear national priorities. Which of these should be selected is a matter for political and policy-level debate, but some logical goals might include addressing chronic under-nutrition, reaching those left behind, or addressing the damage to the social fabric caused by the HIV/AIDS pandemic. Youth unemployment has also been recognized as a growing problem. While these youths are not necessarily in extreme poverty (most of the very poor are subsistence farmers living in rural areas), their numbers are increasing, which is a cause for political and social concern. Urban public works programs could provide young people with temporary employment, thus bridging the gap between school and work.

444. In Zambia, as in many countries, policymakers and the public have a general aversion, both politically and socially, to the idea of handouts. This kind of dependency can be avoided by making transfers conditional, either in the form of a work requirement (under the proposed public works scheme) or of requirements to, for example, participate

in nutrition education, ensure children attend school, or use maternal health services (in the case of cash transfers).

445. Geographical targeting can be politically sensitive, but poverty in Zambia is distributed in such a way that there are some clear areas of deep poverty. Therefore, it probably makes the most sense, both practically and financially, to target these areas first. Thereafter, the program could be rolled out to other areas over time.

446. Any reform of existing programs and possible reallocation of resources will create winners and losers. Because some existing programs may benefit the non-poor, they may nonetheless enjoy support from significant constituencies (the FISP and FRA purchases are good examples). However, every Kwacha that is transferred to the well-off not only has no immediate poverty-reducing impact but also is not available for those who are truly needy.

Institutional Issues

447. The fragmentation of programs and the lack of an agreed overarching framework have hindered efforts by the government and its development partners to have a meaningful impact on reducing poverty levels. The development of a National Social Protection Policy, expected in the coming year, is an opportunity to develop such a framework and move towards a permanent, unified, and stable national safety net system that protects the poorest.

448. One important way forward would be to designate a central agency to take responsibility for broad safety net/transfer programming, planning, coordination, and expenditure decisions. Ideally, it should be an agency with no vested interest in delivering any particular program.

449. Also, developing a uniform national targeting system and common targeting criteria would reduce transaction costs and overlap and duplication between programs. Another crucial tool would be to create an integrated management information system (MIS) to generate the information needed to make decisions and to facilitate accountability.

450. Creating a single registry of beneficiaries is another possibility. Integrating the beneficiary databases of the existing PWAS, FSP, and OVC programs with that of an expanded version of the SCTS would be a good start towards that goal. Such a unified registry of beneficiaries would make it possible for other programs to identify their target population quickly while avoiding duplication and gaps in coverage.

451. Sufficient capacity is needed within the safety net system to determine the eligibility of applicants, to deliver benefits efficiently, to monitor and evaluate operations, to handle complaints, and to ensure transparency and accountability. This capacity is limited both at the field level and at the institutional level among those agencies responsible for delivering programs. This means that it is important, first, to keep the design of programs simple and to avoid making constant changes in systems and processes so that low-level staff can master them and, second, to increase investments in capacity-building. Reducing the number of fragmented programs and moving towards a unified national safety net system would make it easier to focus capacity-building efforts.

452. Almost none of the existing programs rigorously measure what impact they are having on the poverty levels of their beneficiaries, which makes it very difficult for policymakers to assess which of these programs is a cost-effective way to reduce poverty. Many do not even track the characteristics of their recipients so it is impossible to assess how well targeted they are. One solution might be to establish a program of rigorous independent evaluation of existing programs – perhaps operating out of the CSO or the Ministry of Finance and Economic Development. Another would be to include a module in the next household budget survey that would ask respondents to identify the programs

from which they receive benefits, thus allowing analysts to make the link between households' coverage by the safety net and their poverty status.

Financing

453. Zambia probably could be spending more than it currently does on true transfers to the poorest. The government is in the enviable position of having the fiscal space to increase its spending on redistributive transfers in the coming years, though it will of course have to carefully balance spending choices against many competing demands. However, the coverage of social safety net programs could be increased simply by increasing the efficiency of current spending, targeting some currently untargeted transfers to the poor, and consolidating fragmented programs into a unified national system.

454. There is no right amount to spend on transfers. Our rough calculations show that it might cost anywhere between K.183 billion (US\$37 million) annually to support the most destitute to K.1.9 trillion (US\$380 million) annually to reach everyone below the food poverty line, assuming that programs were well-targeted and relatively efficiently implemented.¹⁹⁴

455. These amounts are not huge. They can be compared, for example, to the US\$550 million that Zambia spends annually on health services or the US\$800 million it spends on roads. Very broadly, almost US\$550 million is currently being spent in Zambia on transfers of all kinds. The estimated US\$101 million (K.506 billion) per annum shown in Table 43 that might be needed to reach the bottom 25 percent of the population represents less than 1 percent of GDP and is low relative to average spending on social transfers in most low- to middle-income countries.

¹⁹⁴ Based on a transfer of 25 percent of the food poverty line, which would amount to approximately K.24,000 per month per capita, equivalent to US\$4.80 per month or US\$57.60 per annum per person. With an average 20 percent delivery costs, it would be approximately US\$69 per annum per capita.

456. Funding could be made more predictable and efficient if donor financing were pooled in support of a unified national system. This approach has been tried with great success in Ethiopia, where all donors contribute to a single fund that finances the Productive Safety Net Program. Some funding may be less fungible than others (for example, from the WFP or the Global Fund), but experience elsewhere has shown that it can still be used to support the elements of the agreed national system rather than funding separate discrete donor initiatives.

457. It would be useful to have a national debate at the policy and political level about how much to spend on safety net transfers vis-à-vis other poverty-reducing investments to establish a framework for spending and programming decisions. This report provides some of the material needed for such a debate. The whole envelope of current spending on transfers would need to be considered, including the FISP and FRA spending as these expenditures account for the largest single chunk of money that is being spent to benefit individual households so their distributional impact needs to be taken into consideration. In the same vein, all discussions about funding for transfers need to be coordinated to yield a single integrated set of decisions on where money can best be spent.

458. Finally, the Ministry of Finance faces some immediate choices. There are proposals on the table for expanding the School Feeding program, the Social Cash Transfer Scheme, and the Food Security Pack. There is also a debate about introducing a universal old age pension and a national disability grant and about whether to continue large-scale financing of the FISP and the FRA. While there may be other policy justifications for these moves, three of them – the School Feeding program, a universal old age pension, and the FISP – do not appear to be cost-effective ways of reaching the poorest. Spending on a number of generalized transfer programs (tertiary bursaries, the FISP, and the FRA) is expensive and growing (Chapter 4), but none of these programs reaches the poor, and substantial savings could be made by rationalizing them. Whether or not the savings should be re-allocated to more poverty-targeted safety net transfers is a matter for the government to determine in

its public expenditure planning process. However, to the extent that the policy objective is to provide assistance to those who need it, the argument for re-directing transfers is strong. To illustrate, the K.2.5 trillion spent on all transfers in 2010/11 (Chapter 3) could finance a transfer of about K.36,000 per month to everyone below the food poverty line – exactly equal to the average consumption shortfall below the food poverty line – thus almost completely eliminating extreme poverty in Zambia.

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Annex 1: Tables and Figures

Annex Table 1.1: Monthly Food Requirements and Costs for a Family of Six

Food Item	Units	Cost (2009)
Cooking Oil 2.5 L.	1	
Dried Beans 1 kg.	2	
Dried Bream 1 kg.	1	
Dried Kapenta	2	
Fresh Milk	4	
Onion 1 kg.	4	
Shelled Groundnut 1 kg.	3	
Table Salt 1 kg.	1	
Tomatoes 1 kg.	4	
White Roller (maize) 25 kg.	3.6	
Vegetables 1 kg.	7.5	
Total Cost		435,574
Per Adult Equivalent ^{a/}		96,366 ^{b/}

Source: 2010 LCMS (CSO, 2011a, Annex 1).

Notes: a/ 4.52 adult equivalent per household.

b/ Note that the food poverty line in Table 4 in the main report as calculated by World Bank is slightly different (K.98,505).

Annex Table 1.2: Adult Equivalence Scale

Age Group	Member	Calorie Requirement	Adult Equivalent
0-3	1	1,000	0.36
4-6	1	1,700	0.62
7-9	1	2,100	0.76
10-12	1	2,150	0.78
Adult (13+)	2	2,750	1.00
Total	6		4.52

Source: 2010 LCMS (CSO, 2011a, Table 12.1).

Annex Table 1.3: Current and Proposed FSP Packages

	Current Package		Proposed Package	
	Quantity ^{a/}	Cost ^{b/}	Quantity ^{c/}	Cost ^{d/}
Fertilizer - Compound D	1 x 50kg.	165,000	2 x50kg.	320,000
Fertilizer – Urea	1 x 50kg.	165,000	2 x50kg.	310,00
Maize Seeds	10 kg	130,000	10 kg.	130,000
Legume Seeds	10 kg	25,000	--	--
Groundnuts			5 kg	150,000
Cassava Cuttings	312	25,000		25,000
Masungu Trees			20	25,000
Total		510,000		960,000
(US\$)		\$ 102		\$ 192

Notes: a/ Represents enough maize seed for 2 Lima (0.5 ha), fertilizer for 1 Lima (0.25 ha.), and legumes for ½ Lima (0.125 ha.).

b/ Based on the current retail for fertilizer (K.165,000/ 50kg.) and costs from the extended FSP program proposal p.75 (IMCS Limited, 2010, p.75) for others. Legume seed package is not costed in the documents.

c/ Fertilizer for coverage of 2 lima (0.5 ha.).

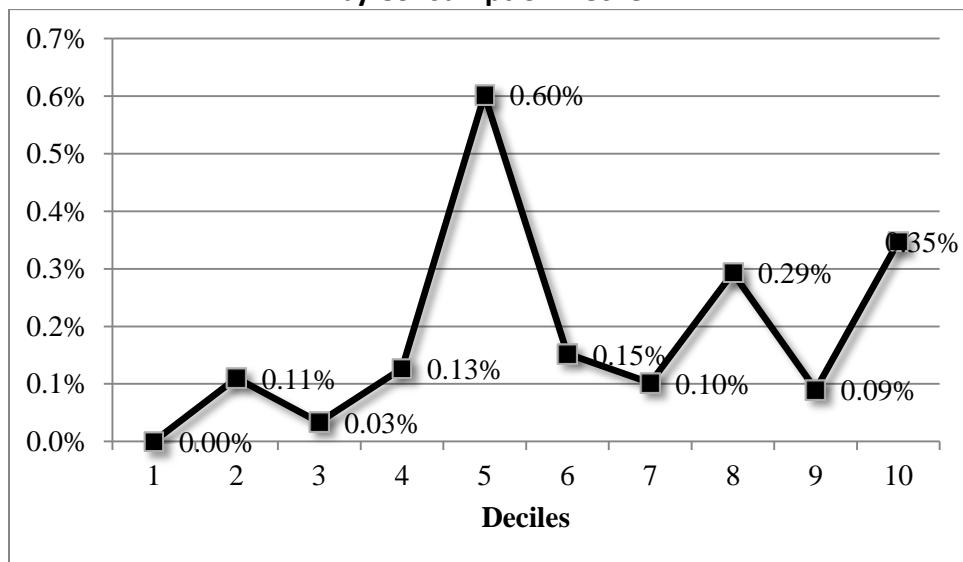
d/ Based on IMCS Limited (2010), p.75.

Annex Table 1.4: Unit Costs of School Feeding Program (US\$/meal)

WFP		Provita		Proposed Expansion Plan	
	Cost				
100g. of HEP	.060	100 g. Provita	0.38	100 g. cereals & pulses	.049
10 g. Vegetable oil	.027		---	10 g. vegetable oil	.010
Transportation & Storage	.010		.02		.030
Administration	.014		.02		.030
Total	\$0.111	(\$ 0.42		\$0.119
Annual Cost per Student	\$19.98		\$75.60		\$21.42

Sources: Author's calculations based on data in the Home Grown School Feeding program proposal (Ministry of Education, 2011 and WFP, 2011b).

Annex Figure 1.1: Proportion of Households Reporting Receiving Pension Income, by Consumption Decile



Source: World Bank calculations using 2010 LCMS data.

Annex Figure 1.2: Relationship between GDP and Gross National Income, 1970-2008



Source: World Bank (2010b)

Annex Table 1.5: Sectoral Contribution to GDP Growth Rate, 2006-2010

Sector	Contribution to Growth Rate
Total Growth Rate	6.4
Agriculture, Forestry, and Fishing	0.5
Industry	2.6
<i>o/w Construction</i>	1.3
<i>Mining</i>	0.8
<i>Manufacturing</i>	0.3
Services	3.3
<i>o/w Real estate</i>	0.3
<i>Trade</i>	0.5
<i>Transport, Storage, and Communication</i>	1.2

Source: CSO (2011a)

Note: Value-added in mining is thought to be under-represented in Zambia's national accounts. A significant part of the construction activity in 2006-2010 was in mining, so growth is even more biased towards mining than the data in this table indicate.

Annex Table 1.6: Headcount Poverty Rates by Broad Employment Status, 2010

	Poverty	Extreme Poverty
Farmers	82.4	62.1
Unpaid Family Workers	67.4	45.0
Self-Employed	42.0	23.5
Unemployed	54.5	30.5
Wage Earners	25.3	12.6

Source: Constructed based on CSO (2011a), Tables 12.22 and 12.23

Annex Table 1.7: Production of Major Crops and Maize Yields, 2007-2011 (Mt)

	<i>Earlier years</i>	2007/08	2008/09	2009/10	2010/11
Maize		1,445,655	1,887,010	2,795,843	3,020,380
<i>Kg per capita</i>		117	148	215	228
Other Food Crops		402,000	628,000	603,000	666,000
Cash Crops^{a/}		112,000	114,000	169,000	207,000

Source: Author's calculations based on CSO Monthly Bulletin, December 2011.

Note: a/ Tobacco and cotton

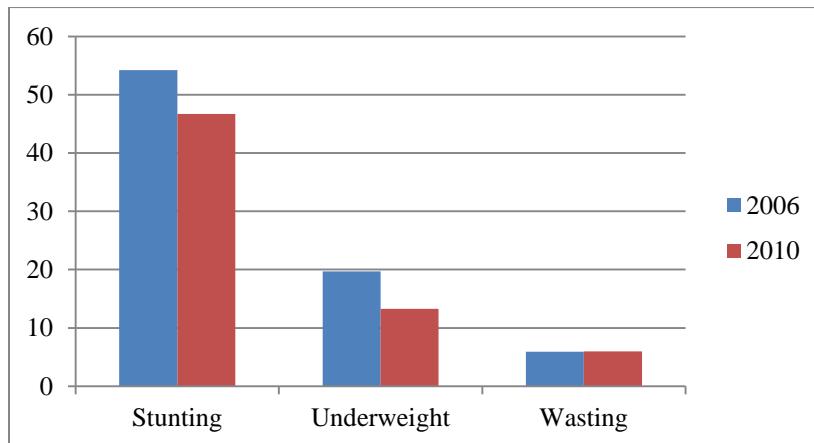
Annex Table 1.8: Land-to-Person Ratio in Selected Countries of Southern and Eastern Africa

	1960-69	1970-79	1980-89	1990-99
Ethiopia	0.508	0.405	0.363	0.252
Kenya	0.459	0.350	0.280	0.229
Zambia	1.367	1.073	0.896	0.779
Rwanda	0.215	0.211	0.197	0.161
Mozambique	0.389	0.367	0.298	0.249

Source: Jayne et al (2003) p.256 and FAO STAT (<http://faostat.fao.org>).

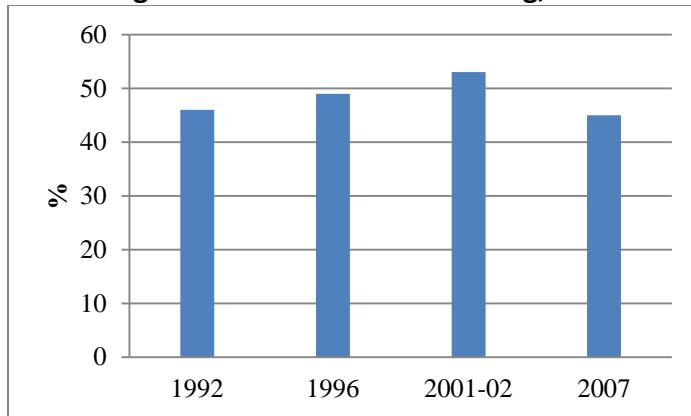
Note: Ratio of land cultivated with annual and permanent crops to the population in agriculture.

Annex Figure 1.3: Incidence of Stunting, Underweight, and Wasting, 2006 and 2010



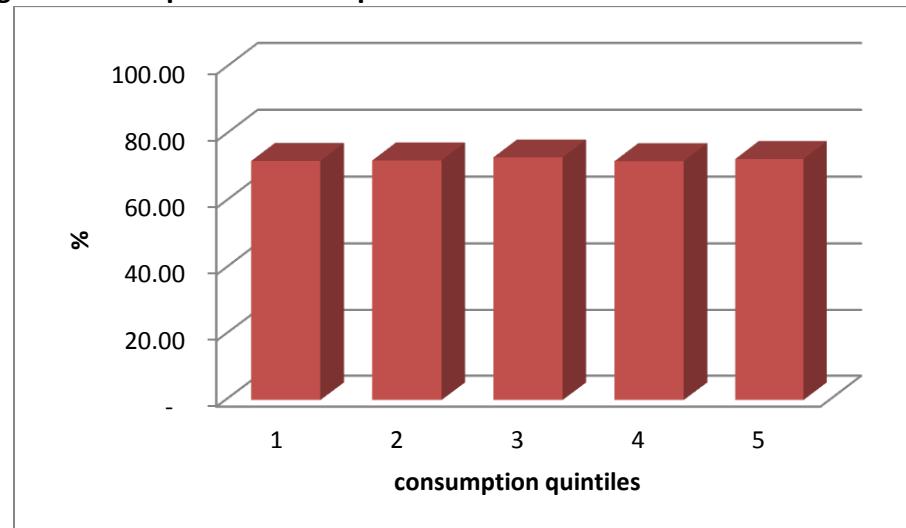
Source: CSO (2011a)

Annex Figure 1.4: Incidence of Stunting, 1992-2007



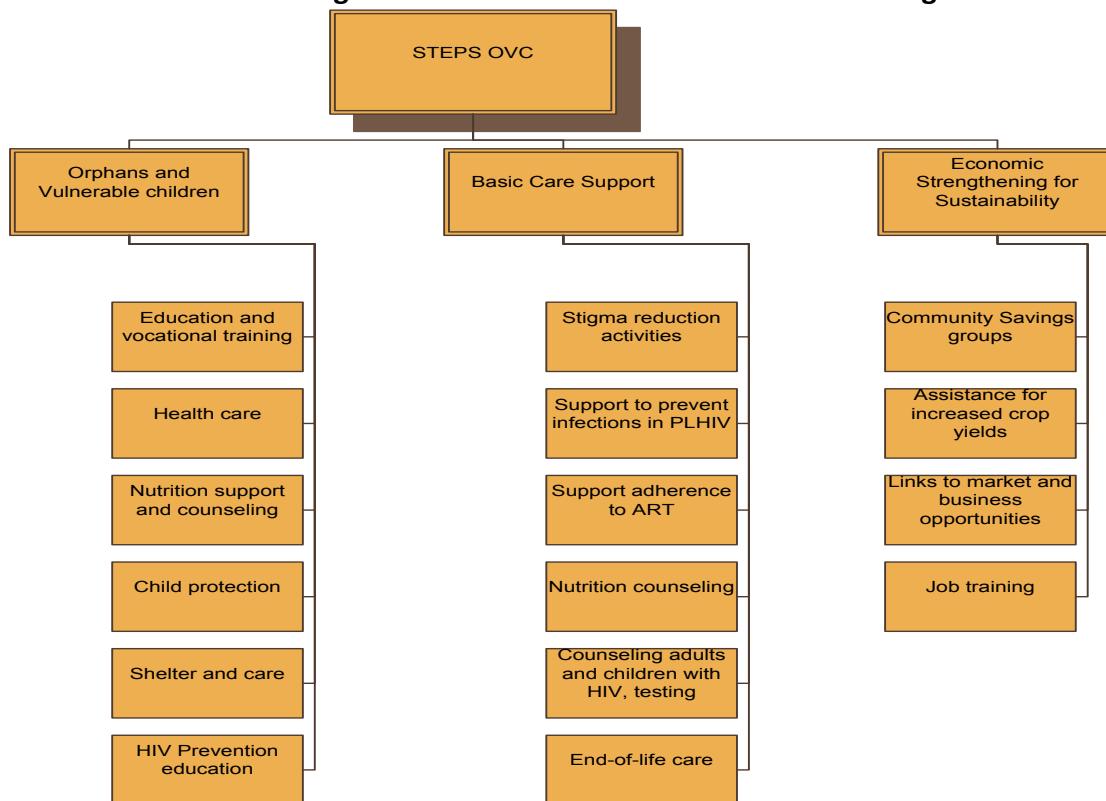
Source: 2007 DHS (CSO, 2011c).

Annex Figure 1.5: Proportion of People who Consulted a Health Provider When Ill, 2010



Source: CSO (2011a)

Annex Figure 1.6: Activities under the STEPS OVC Program



Annex 2: Targeting of the Social Cash Transfer Scheme

Beneficiaries of the Social Cash Transfer Scheme (SCTS) are selected using a variety of targeting mechanisms. Under the transfer scheme targeted to the *10 percent most destitute and incapacitated*, these are the households that are selected. “Destitute” means that the household struggles to survive, adopts negative coping mechanisms, does not have enough food, has inadequate shelter and clothing, has only limited access to education and health, and has no regular source of income and no valuable assets. “Incapacitated” means that the household has either no household members who are of working age and fit for work or that there is a very high dependency ratio (at least three unfit members for every fit member). To target recipients, the CWACs use a multi-stage participatory process that involves the village/section chairperson and the District Welfare Assistance Committee (DWAC).¹⁹⁵ The CWACs develop a list of households who are potential candidates for the scheme in consultation with the local community leadership. All households listed are visited by enumerators to fill in and verify an application form. Based on the application form, the CWAC comes up with a ranking of all applicants and decides which ones fall into the 10 percent most destitute and incapacitated category. Since it is difficult to appreciate who falls under the 10 percent cut-off, most communities will select 10 percent of the households *within that specific community*. A community meeting chaired by the district social welfare officer (DSWO) then discusses the ranking, suggests changes to the lists, and finally approves it. Households who meet the eligibility criteria but who are above the 10 percent cut-off are given one of three priority rankings so that they can be included in the scheme in the right order, provided that in other communities the number of households deemed to be eligible was less than their 10 percent limit. A recertification process is scheduled to take place every five years and is supposed to involve paying a bonus to graduating households equivalent to about 20 percent of the total transfers that they received over the five-year period, but so far none of this has been implemented.

Under the Child Grant scheme, one of the four cash schemes, all households with children under the age of 5 in a poor district are eligible for the program as long as they enter the program when the child is less than 36 months old. The age range of zero to 36 months has been chosen because this is the critical stage for childhood growth. Households receive the grant until their youngest child turns 5 years old. Households with children with disabilities are eligible to enter the program when their child is any age up to 14 years old, provided that they possess a disability card issued by the Zambia Agency for Persons with Disability. Targeting is done in two stages. First, geographic targeting is used to select the districts with the highest incidences of extreme poverty and of under-5 mortality rates. Then, in the second stage, the CWAC in collaboration with the local health center identifies and registers

¹⁹⁵ The 10 percent limit is based on several research findings, among them the results of the National Household Survey carried out by the PWAS in September/October 2003, which concluded that 10.5 percent of Zambian households were in urgent need of social assistance given that they were very poor and could not participate in productive activities (MCDMCH, 2011a).

all potential beneficiary households in the community. Households fill in same application form as in the 10 percent model and need to provide proof that their child is under 5 – usually by producing a health card or birth certificate. The information is cross-checked with the village register to verify their residence in the village. Registration is on-demand, and mothers can fill in an application at the clinic when they give birth or when they bring their child in for its first checkup.

Under the *multi-categorical scheme*, the following households are targeted: female-headed households that contain orphans, households with a disabled member, elderly-headed households (65 years and above) that contain orphans, and special cases that are critically vulnerable but do not fall into any of the above categories (such as households comprised of only two very elderly people who are unable to look after themselves or very poor households whose head is chronically ill).¹⁹⁶ After a community information session, the CWAC lists all potential eligible households who are then visited by enumerators who help them to fill in an application form. In consultation with a DWAC, the district social welfare officer indicates on the application form that he/she recommends the approval or disapproval of the application.

Under the Old Age grant scheme, which is implemented in only one district, all elderly people over the age of 60 are eligible to receive the grant, and the recipient is the elderly person. There can be more than one recipient in each household.

¹⁹⁶ The categories were arrived at based on a vulnerability assessment in the three districts where the pilot has been implemented using the data from the 2006 LCMS (MCDMCH, 2011a).

Annex 3: Impact Evaluation of Zambia's Social Cash Transfer Scheme in the Monze District

An impact evaluation was carried out in 2010 of the outcomes of the Social Cash Transfer Scheme (SCTS) in the Monze district of Zambia. The evaluation estimated the scheme's effects over a three-year period on a range of outcomes including nutrition, health, education, labor, and agricultural activity.¹⁹⁷ In addition to these primary outcomes, the program's impact on individuals' expectations of the future, on discount rates, and on self-assessed quality of life was examined.

Primary Outcomes

- The program had a significant impact on livestock ownership, particularly goats and chicken, and pig ownership among smaller households. Program households were more likely to purchase fertilizer and to produce a greater quantity of cash crops. There also appeared to be a shift away from growing maize for direct consumption and towards growing more cash crops (such as groundnuts and sweet potatoes) for sale.
- The program had a strong impact on school enrollment, in a similar range to other programs (7 percentage points), and a very strong impact on the enrollment of younger children (20 percentage points).
- No impact on food expenditures or food composition was found. Evaluators believe that this was because the expenditure module was not sensitive enough to capture changes in food expenditure. Additionally, the delays in payments to beneficiaries, especially in the months prior to the follow-up data collection, probably reduced their spending in the month prior to the data collection, which was the expenditure period assessed in the follow-up survey.
- There was no statistically significant impact on health outcomes such as having an under-5 card, attending checkups, or receiving curative care for either young children (aged 5 and under) or school-age children, which is consistent with findings from the Kenya CT-OVC evaluation. For young children, the sample size was extremely small (720), and the study therefore lacks sufficient power to detect any effects among this group even if they were to exist.

Secondary Results

- There was a strong impact on beneficiaries' expectations about their future quality of life, with recipients being up to 9 percentage points more likely to believe that the future would be better than non-beneficiaries (21 versus 30).

¹⁹⁷ Seidenfeld and Handa (2011a).

- Beneficiaries consistently reported a willingness to delay gratification at a higher rate than the comparison group. On average, treatment households were as much as 10 percentage points more likely to wait for future money (in other words, money that may become available in one or more months) than households not receiving the cash transfers. These results suggest that the cash transfer program makes people feel more secure and less desperate and affects their discount rate and willingness to save.

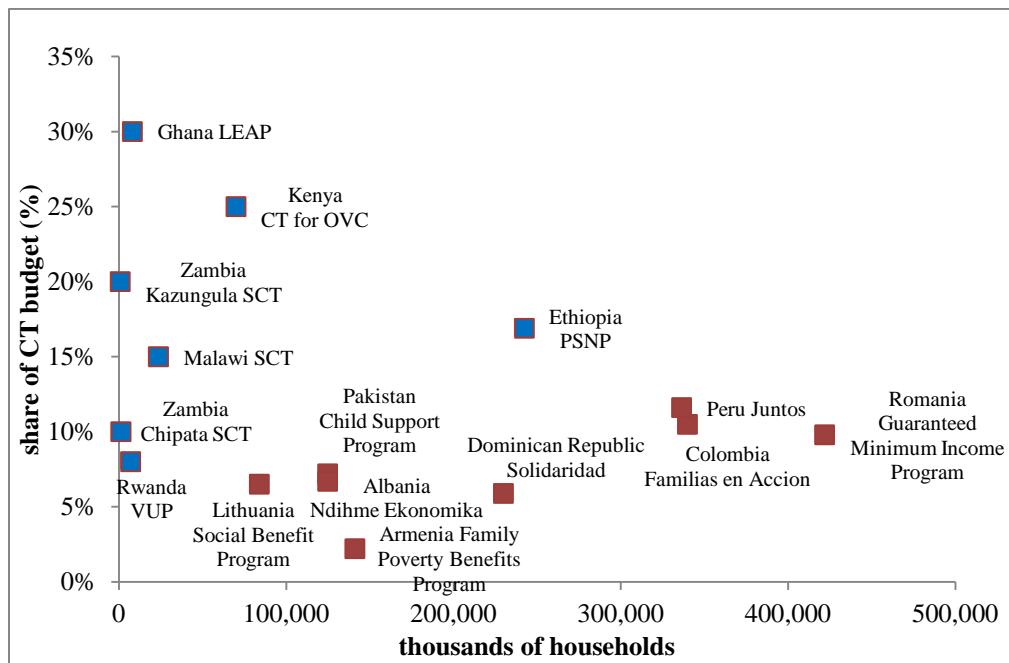
Annex 4: Administrative Costs of Cash Transfers

The MCDMCH has estimated the administrative costs of delivering the transfers in all four schemes to be equivalent to about 17 percent of the cost of the transfers provided by all four schemes. However, this must be considered a lower bound given that it does not include the cost of the time of teachers and nurses who act as pay point managers, nor the time of community volunteers who select the beneficiaries. If the PWAS were to increase the number of its staff in order to expand the program, then administrative costs might increase. However, the administrative costs might then constitute a smaller percentage of the total cost of the program as the total amount of transfers would increase as the number of beneficiaries grew.

Also, administrative costs as a percentage of a program's overall budget tend to be higher during a program's first few years and to decline thereafter. During the first seven years of Mexico's PROGRESA program, for example, administrative costs fell from 51 percent of the total budget to 6 percent. This was because of large up-front expenditures (for example, the purchase of equipment, the design of systems, and the impact evaluation) that yielded benefits for multiple years, coupled with the gradual roll-out of the program with successively larger numbers of beneficiaries (Lindert et al, 2006). Large-scale, mature programs tend to have administrative costs in the range of 5 to 12 percent of total costs.¹⁹⁸ A recent review by Garcia and Moore (2012) revealed that cash transfer programs in Africa tend to have proportionately higher administrative costs than programs in other regions because their scale is small as shown in Annex Figure 4.1.

¹⁹⁸ Grosh et al (2008).

Annex Figure 4.1: Administrative Costs of Cash Transfer Programs



Source: Garcia and Moore (2012).

Annex 5: Integrated Cash Transfers in Brazil

Prior to 2003, Brazil's central government operated four different cash transfer programs, all with separate administrative structures and procedures. This created inefficiencies, resulted in considerable gaps and duplications in coverage, and missed important synergies from jointly promoting education and health.

In late 2003, Brazil launched the *Bolsa Família* Program (BFP) by merging these four programs in an effort to increase the efficiency and coherence of the social safety net and to scale up assistance to the poor. Also, the BFP was expanded rapidly to cover 100 percent of the poor. Coverage increased to 25 percent of the total population (13 million families or 54 million people in 2012), making it the largest program of this type in the world. The BFP has better than average targeting accuracy and has had a significant impact on poverty and inequality. This has been achieved by geographic targeting and means-testing with a unified registry of beneficiary families – the *Cadastro Único*. Over 70 percent of the transfers go to the poorest quintile and fully 94 percent to the poorest two quintiles. The program accounted for a significant share (20 to 25 percent) of Brazil's recent (and impressive) reductions in income inequality and 16 percent of the recent fall in extreme poverty.

The central government established a new ministry to manage the BFP, although many aspects of the BFP's implementation are carried out by Brazil's 5,564 municipalities. The new ministry established minimum service standards and provided both incentives for achievement and remedial help for local governments with low capacity. The BFP acted as a unifying force for social policy in Brazil, both vertically (unifying transfer programs across levels of government) and horizontally (linking the BFP with complementary actions and services at all levels of government).

Annex Table 5.1: Bolsa Escola Key Characteristics

Program Name	Objective	Target group	Benefit
Bolsa Escola- cash transfer conditional on education	Increase educational attainment and reduce poverty in the long run; reduce short-term poverty through direct income transfer	School-aged children	US\$7 per month per child up to a maximum of 3 children
Bolsa Alimentacao- cash transfer conditional health	Reduce nutritional deficiencies and infant mortality	Pregnant & lactating mothers and infants	US\$7 per month per child up to a maximum of 3 children
Auxilio Gas- Unconditional cash transfer	Compensate households for the phasing out of the cooking gas subsidy	Poor households	US\$3.5 per month
Cartao alimentacao- unconditional cash transfer	Promote food consumption	Poor households	US\$25 per month per family

Annex 6: Strengthening the Nutrition Impact of the Peru CCT Program

Peru's CCT program, *Juntos*, began in 2005 and serves nearly half a million households.¹⁹⁹ The program targets poor rural households with children under the age of 14 years old and transfers approximately US\$33 to the mother of each beneficiary household per month, which represents 15 percent of total household consumption. The conditions attached to receiving the payment include regular health visits for pregnant women and children under the age of 5 and school attendance of at least 85 percent of school-aged children who have not yet completed elementary education.

As of 2008, some positive results had been seen but far below the program's potential. There was a reduction in poverty, beneficiaries were spending more on nutritious food, and there was a significant increase in the use of health services (mainly check-ups and vaccinations). However, there was no increase in the use of other key services such as prenatal check-ups, and no impact on final outcomes (malnutrition). Meanwhile, the rate of chronic malnutrition (stunting) in Peru remained at 31 percent, far higher than could be expected given its per capita income. In 2007, the government placed nutrition at the forefront of its social policy, committing to reducing chronic malnutrition in children under the age of 5 by 9 percentage points in five years. *Juntos* is at the core of the government's strategy to reduce under-nutrition, and since no nutrition impact was observed, it needed to be strengthened. As part of the Government of Peru's overarching commitment to improving nutrition assisted by non-lending technical assistance from the World Bank, it made an effort to identify key bottlenecks in the program and to create a plan to strengthen it in order to improve its functioning and achieve better nutrition outcomes. Highlighted results of this analysis are summarized in Annex Table 6.1.

¹⁹⁹ Vargas (2011).

Annex Table 6.1: Results of the Analysis of the *Juntos* Program

Bottleneck	Line of readjustment
Under-coverage of target population (< 2yrs old)	Improvement of targeting (priority children aged 0-2)
Transfer scheme inappropriate for desired incentives	Adjustment of the incentive scheme (amount, co-responsibilities, and frequency)
Cash transfers to households without information about the compliance and/or without compliance of co-responsibilities	New process of cash transfers delivery; Compliance verification through Health and Education sectors
Limited supply capacity of health and education services	Guarantee the supply of health and education services through the standardization of basic packages (i.e. nutrition interventions such as community nutrition strategy, Sprinkles, etc.)
No managerial monitoring system	Establish a monitoring system that includes the supply of service
Inadequate institutional structure	Establish an adequate and professionalized structure

Source: Vargas (2011).

An important and innovative aspect to the modification of *Juntos* is that the changes were pilot-tested in one district of Peru (San Jerónimo, Apurímac Region) to validate the functioning of the revamped program and to fine-tune aspects before scaling it up to the national level. This involved the establishment of a multi-sectoral inter-agency working group (known as the *Grupo Apurímac*) that turned out to be critical to the program's success. The group is an important instrument for coordination across the different sectors, particularly between *Juntos* and the Ministry of Health. Its goal is to coordinate the delivery of transfers and demand incentives to targeted households by providing a basic package of interventions in health and nutrition.

Map IBRD 33514



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Abstract

Despite robust annual growth of 5.7 percent in the recent past, poverty in Zambia remains stubbornly high. The poverty headcount rate is 60 percent (as of 2010), and 39 percent of the population live in extreme poverty, with insufficient consumption to meet their daily minimum food requirements. Chronic malnutrition remains very high, with 47 percent of children under the age of 5 being stunted in 2010, close to the high levels of the early 1990s. The report recommends a unified National Safety Net Program comprising cash transfers and public works to reach the poorest 20% of the population. The estimated cost is about US\$100 million per year. This is less than 2% of public spending and around 15% of the current subsidies programs benefiting the non-poor.

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