
FOOD SECURITY RESEARCH PROJECT

**RAISING THE PRODUCTIVITY OF PUBLIC
INVESTMENTS IN ZAMBIA'S
AGRICULTURAL SECTOR**

By

J. Govereh, J.J. Shawa, E. Malawo, and T.S. Jayne

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EXECUTIVE SUMMARY

Agriculture provides the main support for Zambia's rural economy, and because of this, growth in the agricultural sector is the clearest avenue through which poverty reduction can be achieved in Zambia. Yet despite widespread recognition of the strong connection between agricultural development and poverty reduction, there is continuing under-provision of public goods investments for over a decade. Zambia's primary policy objective of achieving accelerated growth and competitiveness in the agricultural sector cannot be achieved unless adequate public resources are committed towards catalyzing the desired growth. Strong evidence from southern Africa as well as throughout the world indicates that long-term public investment in research and development, extension services, rural infrastructure, and food safety and quality systems have high pay-offs and are among the most important drivers of agricultural growth and competitiveness.

Agricultural-led development has been identified by African Heads of State and Governments as key to restoration of food security and rural development on our continent. Under the African Union's Comprehensive Africa Agricultural Development Program (CAADP) framework, Zambia, like many other members of the union, has targeted to achieve a minimum of 6% annual agricultural growth by making available 10% of the national budget towards the sector. In Zambia, it is important not only to increase the resource allocation to the sector in accordance with the CAADP target of 10%, but to allocate these resources productively so as to make the maximum contribution to sustainable growth within the shortest possible time.

This paper examines trends in Zambia's public budgeting for agriculture and the composition of the budget. This report does not cover tax expenditures by the government, private sector expenditures, and support from donors. Support from development partners channeled through government programs is included in the report. The report covers approved budget allocations and compares approved expenditures with actual expenditures.

The period between 1981 and 1992 was characterized by a high proportion of the national budget being spent on agriculture. This was because of the large treasury outlays for state food and input marketing operations. After the Movement for Multiparty Democracy (MMD) took over the government in 1991, the real national budget size declined by about 50% in years that followed. But agriculture took a disproportionate share of the reduction in the public budget. In 1991, the share of the budget to agriculture was 26%, but this declined to 4.4% by 1999. With this decline, Zambia's agricultural sector witnessed deterioration of research, extension, and other institutional support services from the government. The 2006-2008 expenditure framework shows that agriculture's share of public resources in the immediate future will remain at 4%, and Zambia will fail to achieve the CAADP target of 10% by 2008. Given this low level of public investment in the sector, rapid agricultural growth will remain elusive, and the country is unlikely to achieve its Millennium Development Goal (MDG) number one.

The composition of the sector's public budget matters as much as the total amount spent. The sector's budget is comprised of six major budget items. These include personnel emoluments, recurrent departmental charges (operational expenditure), poverty reduction programs, capital expenditure, agricultural development programs, agricultural infrastructure spending allocated through other ministries, and other public payments to the sector. Over the past six years, poverty reduction programs had the largest share of 48%, followed by

agricultural development programs at 18%, followed by personnel emoluments, agricultural infrastructure and social relief, recurrent departmental charges, and capital expenditure in that order.

Poverty Reduction Programs (PRP) funding supports out-grower schemes, farm block and land development, livestock restocking and disease control, the Fertilizer Support Program (FSP), the operating costs of the Food Reserve Agency (FRA), agricultural research, and extension projects. Since 2004, allocations for PRPs in general have increased, but 80% or more of the funding is for only two programs, the FSP and the FRA. These programs promote maize production despite the stated policy to support crop diversification. Furthermore, the manner of conducting these programs sometimes conflicts with government goals of stimulating private sector investment in the sector.

Agricultural development programs are funded by donor grants and loans. The volume of expenditure has grown in real terms. The program activities include capacity building of smallholder farmers and MACO staff, infrastructure rehabilitation, e.g., feeder roads, camp and farmer training center facilities, and some elements of agricultural finance. The majority of these programs have a short life span. Challenges in managing these donor projects lead to unsustainability, poor monitoring and evaluation, overlapping interests, diversion of public sector officials' time away from core government activities, and a lack of effective coordination. The effectiveness of these projects depends on the synergy and continuity among them and their integration with national strategies.

Since 2001, allocations for personnel emoluments have grown in real terms. Evidence at hand does not show whether this increase is due to growth in the size of the public agricultural workforce or increases in real wages and benefits.

Part of the sector's public budget is channeled through other ministries including Finance and National Planning, Energy and Water, Works and Supply, Community Development and Social Services, and Ministry of Lands. Allocations through these other ministries pay for relief services and the provision of infrastructure services in farm blocks, including electrification, construction of roads, dams, and land development. Expenditures on agricultural infrastructure have trended downwards and fluctuated over the years. In spite of stated policy emphasis on irrigation development, actual spending remains negligible.

Allocations to recurrent departmental operations have declined in real terms. This decline has crippled technical public agricultural institutions as staff operate with increasingly few resources. The efficiency of public agricultural employees has been negatively affected. A number of research programs have been abandoned due to inadequate resources.

Capital expenditures for the agricultural sector by the government have been squeezed over the years. The inability to rehabilitate existing equipment and supporting infrastructure has further reduced the effectiveness of employees. In a number of locations, public agricultural institutions are non-existent. Poorly functioning equipment and facilities at agricultural institutions have made it difficult for officers to carry out their duties. Public agricultural research and extension in Zambia has virtually collapsed.

Although MACO submits its expenditure plans to MOFNP, the latter only approves a fraction of what the former requests. On average, over 70% of what is requested is approved. Such a pattern of funding approval means that a number of planned activities are not carried out.

The size of the budget approved for the sector is important, but the resources that will be released as the budget gets implemented does not necessarily match with the resources approved. Partial release of funds means that program development is not coordinated with resources made available for these programs. The discipline to match releases with the amounts approved has improved under the MMD's New Deal Government. Since 2002, more than 90% of the resources have been released.

The level of allocation of resources does not give the full picture of the amount of resources that will be made available for spending. For example, the FSP, involving the distribution of subsidized fertilizer to small farmers, has received more resources than approved at the expense of other budget items such as recurrent departmental charges. The significant disparity between budget authorizations and actual releases suggests that the budget itself offers only a notional guide of the actual spending priorities.

In summary, an important challenge facing Zambian policy makers is to focus on improving the effectiveness of fiscal spending on agriculture. While higher levels of investment are needed, merely spending more on agriculture may not effectively contribute to national policy objectives unless the funds are spent in productive ways and complemented by a supportive policy environment. It is especially important that future efforts evaluate the returns to alternative public and linked private investments, as there can be very positive (or negative) linkages between these, depending on the nature of the investments made by the public sector and their effect on incentives and the risk environment for encouraging private investments.

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LIST OF ACRONYMS

ADB	African Development Bank
ADF	Agricultural Development Foundation
ADFSP	Agricultural Diversification and Food Security Project
ADSP	Agricultural Development Support Program
AFC	Agricultural Consultative Forum
ARV	Anti-Retro-Viral
ASIP	Agricultural Sector Investment Program
ASP	Agricultural Support Program
AU	African Union
BFP	Budget Framework Paper
CAADP	Comprehensive African Agricultural Development Framework
CSO	Central Statistical Office
DFID	Department for International Development
EU	European Union
FAO	Food and Agricultural Organization
FNDP	Five-year National Development Plan
FRA	Food Reserve Agency
FSP	Fertilizer Support Program
FSRP	Food Security Research Project
GDP	Gross Domestic Product
GEF	Global Environmental Fund
GRZ	Government of the Republic of Zambia
HIPC	Highly Indebted Poor Country
IDA	International Development Agency
IFAD	International Fund for International Development
IFPRI	International Food and Policy Research Institute
ISTA	International Seed Testing Association
JICA	Japan International Cooperation Agency
LAPP	Luapula Agribusiness Promotion Project
MACO	Ministry of Agriculture and Cooperatives
MCG	MTEF Consultative Groups
MMD	Movement for Multiparty Democracy
MOFNP	Ministry of Finance and National Planning
MPSA	Ministries, Provinces, and Spending Agencies
MSU	Michigan State University
MTEF	Medium Term Expenditure Framework
NCZ	Nitrogen Chemicals of Zambia
NEPAD	New Economic Partnership for African Development
NGO	Non-governmental Organization
OVP	Office of the Vice President
PE	Personnel Emoluments
PRP	Poverty Reduction Programs
PRSP	Poverty Reduction Strategy Paper
RDC	Recurrent Departmental Charges
SADC	Southern Africa Development Community
SHEMP	Small Holder Enterprise and Marketing Project
SIDA	Swedish International Development Agency
SIP	Small-scale Irrigation Project

USAID	U.S. Agency for International Development
WB	World Bank
ZAMPIP	Zambia Agricultural Market Processing and Infrastructure Project
ZCF	Zambia Cooperative Federation
ZKW	Zambia Kwacha
ZNFU	Zambia National Farmers Union

1. INTRODUCTION

Agriculture is the backbone of Zambia's economy. The agricultural sector accounts for 67% of total employment, 25% of total exports, and 23% of GDP. Agriculture is particularly important in rural areas where it is the major source of gainful employment and income. Furthermore, through its impact on food prices, the agro-food linkages greatly influence the cost and standard of living in urban areas, particular among poor households where food accounts for 25% or more of household incomes. For these reasons, agricultural growth is critical for achieving poverty reduction in Zambia. Yet despite widespread recognition of the strong connection between agricultural development and poverty reduction, there remains a chronic under provision of public goods investments to catalyze agricultural growth in Zambia.

Agricultural policy in Zambia has the primary objective of achieving accelerated growth and competitiveness in the sector (GRZ 2006). Zambia has identified income growth, poverty reduction, crop diversification, and improved food security as key policy goals. To achieve these goals, the government's official strategy is to support private sector-led development while the government itself focuses on investing in infrastructural development and support services to support agricultural productivity. The Ministry of Agriculture and Cooperatives (MACO) plays a crucial role in this process, through its expenditures and programs. International experience has shown that expenditures on public goods, such as agronomic research, seed breeding, adaptive research, and seed development, extension services, education, rural infrastructure, and food safety and quality systems are the most important drivers of agricultural growth and competitiveness (Zorya 2006; Fan, Zhang, and Rao 2004). In Zambia, irrigation development is another long-term investment option that is believed to provide high payoffs.

In 2003, African Heads of State and Governments committed themselves to adopting sound agricultural policies and allocating at least 10% of national budgetary resources to their agricultural sectors by 2008 (AU/NEPAD 2006). This commitment—referred to as the “Maputo Declaration”—was strongly endorsed by farmers, agribusiness, NGOs, and development partners.

This paper examines trends in Zambia's public budgeting for agriculture, and the country's progress in moving toward its Maputo Declaration commitments. Given that the contribution of public investments to agricultural development and poverty reduction depend crucially on how they are allocated, we also examine the composition of public investments and their likely impacts on national policy objectives. While acknowledging the important role that private sector investment plays in the agricultural sector, this paper focuses only on public investments, recognizing that they fundamentally influence the level and composition of private sector investment. The government spending covered in this report is that which is reflected in annual budgets, which includes budget support from donors. Tax expenditures and direct donor activities in the agricultural sector are not covered in this report. Future studies should endeavor to capture such sources of funding and show the impacts of such spending.

The paper is structured as follows. The next section presents trends in the size and share of public budget allocated to agriculture between 1981 and 2006. In Section 3, the composition of the agricultural budget, based on the recognition that it is the composition, not only the amount, of resources devoted to agriculture that determine productivity growth. This section

reveals the level of priority that government places on poverty reduction through agricultural development. Section 4 examines the differences between allocations and actual budget release. Focusing on allocation alone is inadequate. Section 5 presents the paper's summary and conclusions.

2. TRENDS IN ALLOCATING PUBLIC SPENDING FOR AGRICULTURE

The amounts of public resources approved for spending in the agricultural sector each year since 1981 are shown in Table 1. The allocations cover all expenditure by the Ministry of Agriculture and agricultural sector programs implemented through other ministries.

Nominal values cannot inform whether the size of the budget increased or decreased between 1981 and 2006, so the prices are deflated by the GDP deflator, which is normalized in terms of 2006 kwacha. Trends in these real values of total expenditure and allocation to agriculture are plotted in Figure 1.

The period between 1981 and 1991 was characterized by relatively large expenditures to the agricultural sector. These expenditures inevitably attracted large budget deficits (Figure 1). The largest agricultural budget was in 1986 when expenditure levels reached 22.9 trillion in real 2006 terms. In the same year, annual budget deficits also reached their peak level of 21.4% of GDP (Hill and McPherson 2004). This period coincided with the period of considerable state involvement in agricultural marketing. During this period there was expansion of state crop buying operations in smallholder areas; direct state control over grain supplies and pricing; heavy subsidization of fertilizer to encourage its use by small farmers; and efforts to stabilize and subsidize urban consumer prices.

In 1992, with the incoming Chiluba government facing severe budget deficits inherited from the First Republic, the real size of the agricultural budget declined by nearly 50%. This was consistent with MMD's desire to sharply curtail the role of government in the economy and reduce the fiscal deficits that fueled money supply expansion and hyperinflation in the late 1980s. Government expenditures throughout the 1990s and the new millennium were a mere fraction of expenditures made during the First Republic. The trend of real public resources allocated to agriculture shows high levels in the 1980s followed by compression of allocations throughout the reform period. In real terms, public budget allocations to agriculture in 2006 was only 20% of the allocation made in 1986.

Table 1 shows the proportion, in percentage terms, of the national budget that was allocated to the sector between 1981 and 2006. Figure 2 plots these percentages. Between 1981 and 1994, the share of public resources allocated to agriculture was above 14%. The highest share of 30% was in 1992, mainly because the size of the total national budget shrank considerably starting in 1992. However, throughout the 1990s, the budget allocation to agriculture shrank much more so than the overall decline in the national budget. For example, while the overall budget declined by 31.2% between the 1981-1991 and 1992-2006 periods, the budget to agriculture declined by 62.6%. Therefore, agriculture has taken a disproportionate share of the reduction in total public spending.

Table 1. Amounts (ZMK million) of Public Resources Approved for Spending in the Agricultural Sector in Real and Nominal Prices, Zambia, 1981-2006

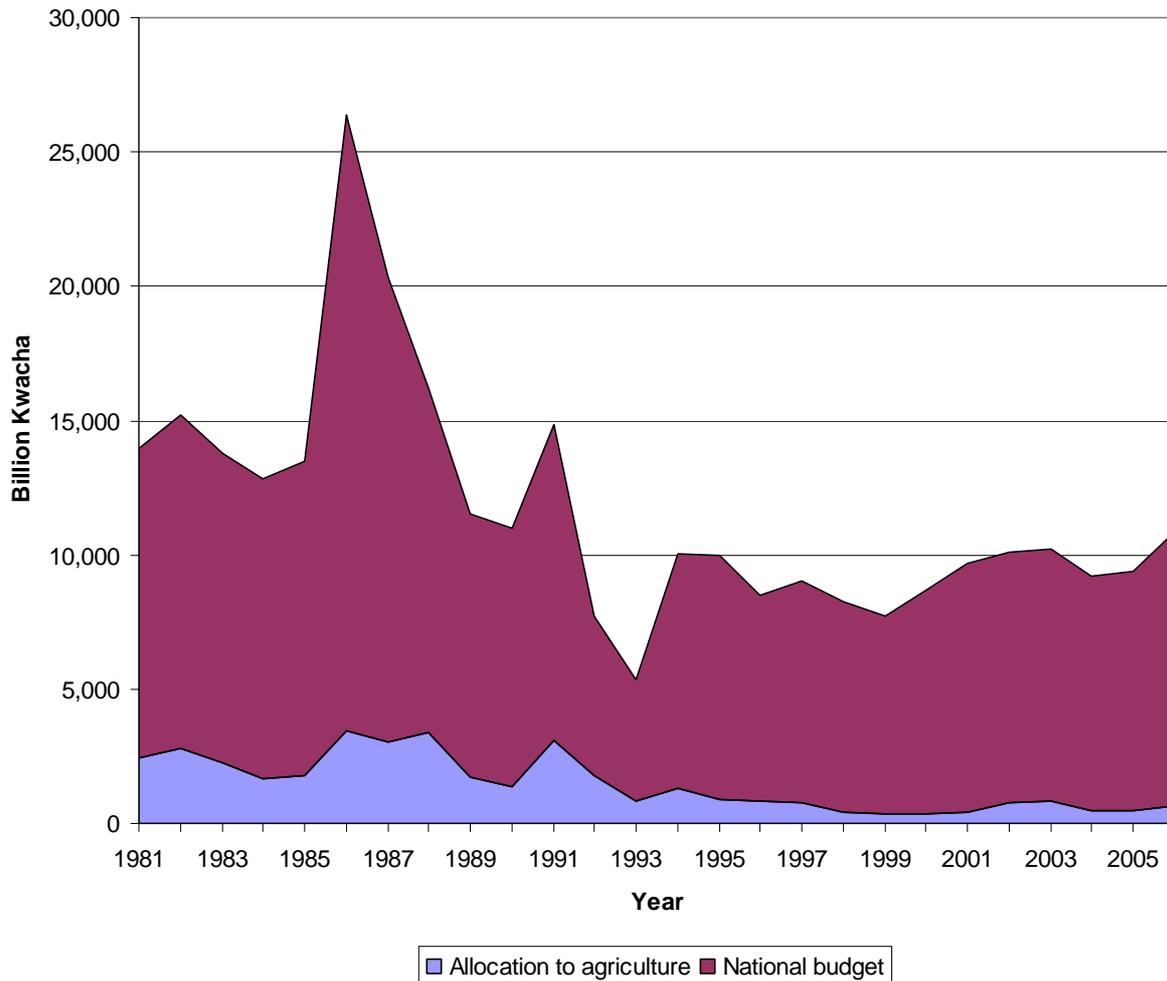
Year	Total Nominal National Budget (-----million kwacha-----)	Agriculture's Nominal Allocation	Total Real ^a National Budget (-----billion kwacha----	Agriculture's Real ^a Allocation	Agriculture's Share of Budget (%)
1981	967	204	11,516	2,432	21.1
1982	1,169	265	12,386	2,810	22.7
1983	1,301	257	11,522	2,279	19.8
1984	1,508	228	11,126	1,679	15.1
1985	2,182	333	11,714	1,785	15.2
1986	6,577	987	22,928	3,442	15.0
1987	7,229	1,256	17,304	3,007	17.4
1988	8,303	2,191	12,851	3,390	26.4
1989	14,437	2,571	9,768	1,740	17.8
1990	29,925	4,264	9,596	1,367	14.2
1991	70,421	18,619	11,724	3,100	26.4
1992	106,400	31,936	5,956	1,788	30.0
1993	231,900	42,604	4,492	825	18.4
1994	686,800	102,435	8,735	1,303	14.9
1995	964,569	92,798	9,094	875	9.6
1996	1,161,600	129,129	7,654	851	11.1
1997	1,563,000	145,432	8,277	770	9.3
1998	1,842,000	98,734	7,838	420	5.4
1999	2,195,000	97,445	7,367	327	4.4
2000	3,122,000	141,140	8,314	376	4.5
2001	4,212,000	189,617	9,240	416	4.5
2002	5,172,000	440,182	9,282	790	8.5
2003	6,338,000	561,885	9,369	831	8.9
2004	6,999,000	367,532	8,770	461	5.3
2005	8,360,850	465,000	8,903	495	5.6
2006	10,236,579	650,000	10,236	650	6.3

^a Prices are normalized using the GDP deflator, 2006 = 100

Source: GRZ 2002

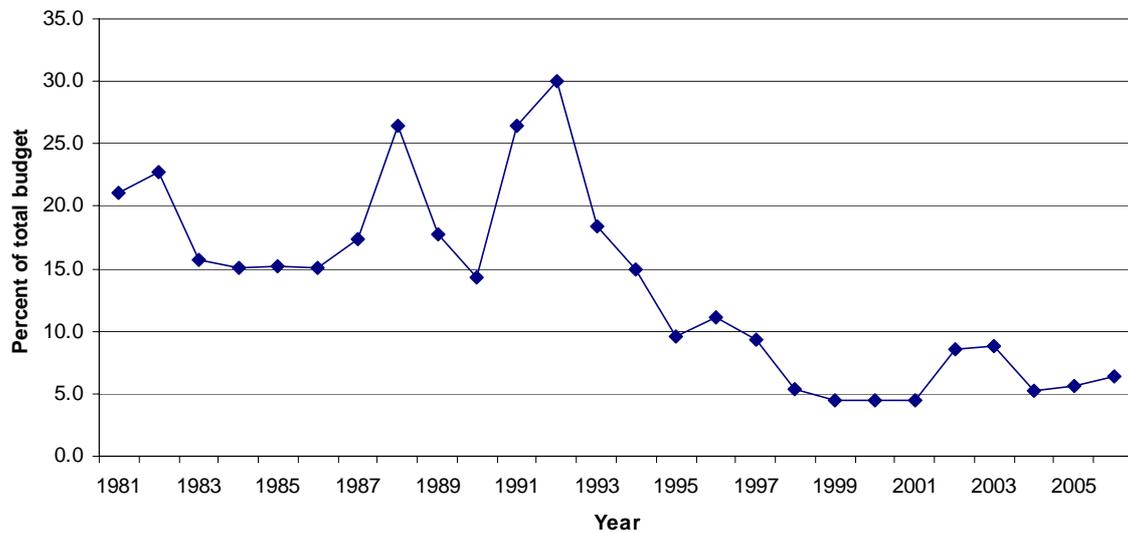
The high share of national resources allocated to agriculture in the 1980s was inevitable in the state controlled marketing systems of the 1980s, which suppressed the private sector from playing a role in service provision and value addition, and forced government marketing agencies to provide all the major services to farmers. The treasury costs of state fertilizer and maize marketing operations were so large that they contributed to macroeconomic instability and hyperinflation (Jansen and Muir 1994). Zambia's National Agricultural Marketing Board's operating losses were roughly 17% of total government budgets in the late 1980s (Howard and Mungoma 1996).

Figure 1. Trends in Size of National Budget and Allocations to the Agricultural Sector, 1981-2006, Zambia



The share of the budget allocated to agriculture declined from 26% in 1991 to 4.4% in 1999. Agricultural policy reforms changed the government’s role and focused it towards support for private sector led market development. The provision of public goods and establishment of legal, administrative, and regulatory systems remained a core responsibility of government. While the private sector has emerged, its ability to extend its services beyond the line of rail has been curtailed by lack of basic infrastructure outside the line of rail. On the other hand, demand for commercial agricultural services outside the line of rail is limited due to low public investments in basic infrastructure, human resource development, and weak agricultural institutions.

Figure 2. Trends in the Share of the National Budget Allocated to the Agricultural Sector, 1981-2006, Zambia



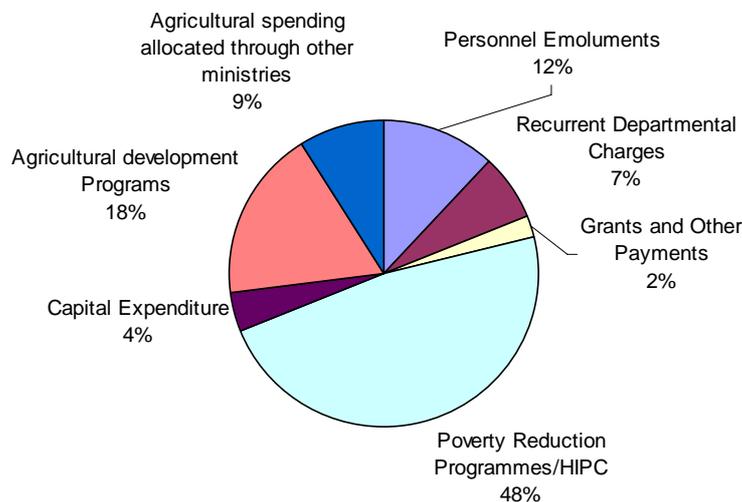
Given the prominent role agriculture plays in poverty reduction, concern about declining public spending on agriculture is justified. Going by what has been planned under the Medium Term Expenditure Framework (MTEF), the allocation to agriculture in 2008—the target year for CAADP—will decline to 4% of the total budget (GRZ 2006). Birner and Palaniswamy (2006) identified the political challenges that make it difficult to increase public spending on agriculture, which include: a lack of voice of small farmers and the rural poor in the political decision making process; challenges for parliamentarians who represent the rural poor to influence the budgetary process; fiscal constraints; a low image of agriculture as a “backward sector;” a lack of knowledge about the potential role of agriculture as an engine of pro-poor growth; negative experience with past investments in agriculture that were ineffective due to governance problems; a short time horizon for policy makers; and demands from other sectors which are perceived to be more urgent. This list is quite relevant for Zambia’s circumstances. It remains to be seen whether Zambia can increase its share of public resources spent on the sector to 10% even after the CAADP deadline expires.

3. COMPOSITION OF THE AGRICULTURE SECTOR BUDGET

Figure 3 shows the six major public agricultural sector budget items. These include personnel emoluments (PE), recurrent departmental charges (RDC) (operational expenditure), poverty reduction programs (PRP), capital expenditure, agricultural development programs, agricultural infrastructure spending allocated through other ministries, and other public payments to the sector.

PE covers salaries, wages, and pension contributions to all filled positions. RDCs are expenditures which support the operations of MACO staff covering fuel, spare parts, stationery, field allowances, and supplies. PRPs support farmers in crop and livestock production and marketing.

Figure 3. Average Share Allocated to Agriculture Budget Items in Real Prices, 2001-2006



Capital expenditures support civil works and purchase of movable and immovable assets. Agricultural development programs are investments to the sector through loans and grants. Finally, agricultural infrastructure and agricultural social relief services are channeled through other ministries.

Over the past six years, PRPs had the largest share of 48%, followed by agricultural development programs at 18% (Figure 3). PE, agricultural infrastructure and social relief, RDC, and capital expenditure follow in that order. Table 2 shows the trends in the nominal allocation of public resources for each of the six major items between 2001 and 2006.

Table 2. Government Budget Allocation within the Agricultural Sector (Nominal Values in billions Kwacha), Zambia, 2001-2006

Ministry of Agriculture and Cooperatives	2001	2002	2003	2004	2005	2006
Personnel Emoluments	15	29	26	71	75	84
Recurrent Departmental Charges	19	20	25	18	44	39
Grants and Other Payments	2	2	10	9	4	3
Poverty Reduction Programs/HIPC ^a	65	78	347	142	221	270
Capital Expenditure	38	18	1	0	0	1
Agricultural Show	0	0	0	0	1	2
Donor Funded Programs	22	37	61	62	49	211
Agric. Infrastructure and Social Relief Services	33	21	21	34	62	32
Allocation to Provinces and Districts	0	0	8	7	7	7
TOTAL ALLOCATION TO SECTOR	194	205	499	343	464	650
% of Agric Spending in National Budget	4.5	8.5	8.2	5.3	5.6	6.3
NATIONAL BUDGET	4,212	5,172	6,338	6,999	8,360	10,237

^a Fertilizer Support Program and Food Reserve Agency are included under these programs

Source: GRZ Various years

3.1. Personnel Emoluments

In real terms, allocations for PE have grown from ZKW33 billion in 2001 to over 80 billion in 2006 (Table 3). Trends showed consistent increases between 2001 and 2004. It is not clear whether this growth is due to growth in the size of public agricultural work force or increases in real wages and benefits. Since 2004, the allocations have declined due to the freezing of wage increases and new appointments. Having attained the HIPC completion point, all public service positions are expected to be filled and salaries increased. Therefore, the amounts allocated to PE are expected to increase. Whether these improved remuneration and incentive packages prove attractive enough to retain key staff remains unknown.

3.2. Recurrent Departmental Charges

RDCs support the operations of officers in MACO. RDCs are allocated to pay field allowances for Ministry staff, purchase goods and services, purchase drugs, train staff and pay for other contingencies. Between 2001 and 2006, the share of RDCs in the total agricultural budget has averaged 7% (Figure 3). Allocations declined in real terms from ZMK42 billion in 2001 to ZMK23 billion in 2004. This has undoubtedly crippled the public agricultural technical system.

Government has to pay salaries in order to retain its technical staff. However, the impact of such public spending on the ground risks being mitigated by inadequate funding for operational activities. Scientists and specialist staff of MACO can neither carry out experiments without supplies, nor go into field to conduct trials and demonstrations without transport and requisite equipment. Operational funds are the main driver of productivity change through knowledge generation and sharing with all stakeholders. The ratio of RDCs to wages has fallen, from 1.28 in 2001 to 0.26 in 2004 and 0.47 in 2006. The implication is that public agricultural employees have fewer resources at their disposal. Therefore,

Table 3. Government Budget Allocation within the Agricultural Sector (Real January 2006 billion Kwacha values), Zambia, 2001-2006

Ministry of Agriculture and Cooperatives	2001	2002	2003	2004	2005	2006
Personnel Emoluments	33	52	39	89	80	84
Recurrent Departmental Charges	42	36	37	23	47	39
Grants and Other Payments	5	4	15	11	4	3
Poverty Reduction Programs/HIPC	142	140	513	178	236	270
Capital Expenditure	84	32	1	0	0	1
Agricultural Show	0	0	0	0	1	2
Donor Funded Programs	47	66	90	78	53	211
Agric. Infrastructure and Social Relief Services	72	38	31	43	66	32
Allocation to Provinces and Districts	0	0	11	8	8	7
TOTAL ALLOCATION TO SECTOR	426	367	737	430	494	650
NATIONAL BUDGET	11,000	10,188	10,246	10,437	9,388	10,237

Source: GRZ Various years

efficiency of the workforce has declined during this period. Fan, Zhang, and Rao (2004) reported that in Uganda, government spending on agricultural research and extension improved agricultural productivity substantially and had the largest assessed impact on poverty reduction.

3.3. Capital Expenditures

Capital expenditure supports civil works and purchase of movable and immovable assets. Civil works include the erection and maintenance of office buildings, staff accommodation, water wells/boreholes, dip-tanks, and storage rooms. Movable assets include plant and equipment, vehicles, cycles, tools, furniture, and special equipment. Capital expenditures for MACO have been squeezed over the years. Between 2004 and 2005, no funding was budgeted for capital expenditure. A paltry ZKW1.0 billion was allocated in 2003 and 2006. It is no surprise, therefore, that effectiveness of employees is limited given that equipment and buildings are run down and are not being replaced. In real terms, the allocation to capital expenditure in 2001 was ZKW83 billion. The dilapidation of research and training institutions is a result of cuts in government funding for capital expenditures. Supportive infrastructure, such as office space, laboratories, institutional, and camp housing at service delivery centers and points, is non-existent in a number of locations. This has led to some stations being understaffed. Where staff accommodation exists, it is in a deplorable state. Even though the government may not purchase new assets every year, it should nonetheless allocate enough resources each year to cover depreciation of existing capital assets.

Laboratory equipment in research stations is obsolete and in most cases non-functioning. Although life-span of capital equipment goes beyond one season, the non-maintenance of the equipment has rendered it non-usable. The non-provision of capital expenditure resources in the last three years means that capital assets have not been replaced. MACO has specialized departments which require adequate operational equipment facilities such as transport and farm machinery. These facilities are what enable MACO to adequately and effectively deliver services. Employees from research stations are employed to research and link with extension to disseminate research results. At present, officers are immobile. Lack of equipment at agricultural institutions has made it difficult for officers to carry out their duties.

3.4. Donor Funded Programs

Agricultural development programs are investments to the sector through loans to the Government of Zambia from multi-lateral agencies and grants from bilateral donors. Approved spending for agricultural development program allocations fluctuated but grew from ZKW47 billion in 2001 to ZKW211 billion in 2006 in real terms (Table 4).

Allocations for 2006 increased dramatically because of the increased number of new projects and increased spending for existing projects. The specific programs are listed in Table 4. Government also co-funds some of these activities, although its overall share is barely above 5%. The program activities include capacity building of smallholder farmers and MACO staff, infrastructure rehabilitation, e.g., feeder roads, camp and farmer training center facilities, and some elements of agricultural finance.

The majority of these programs have a short to medium-term operational span. Among the twenty or so projects in Table 4, only three projects have been running for about five years. These are SHEMP, ASIP/ZAMPIP Eastern Province and Small-scale Irrigation Project (SIP). SHEMP and ASIP/ZAMPIP project objectives are similar and aim to improve smallholder incomes by improving smallholder access to input and output markets and other services from the private sector. SIP's objective is to increase food production and household income in Sinazongwe, Mazabuka, and Chongwe districts. A number of other projects have been running for the past two or more years. Notable among these are the Luapula Agribusiness Promotion Project (LAPP) and Agricultural Support Program (ASP). LAPP's focus is on developing business services in Luapula province in order to link farmers with markets. ASP is developing business services for inputs and outputs (crop and livestock) in several provinces since 2003.

There are a number of new projects being implemented starting in 2006. These include Agricultural Development Support Program (ADSP), Agricultural Diversification and Food Security Project (ADFSP), and the Kwando-Zambezi Tsetse and Trypanosomiasis Eradication Project. ADSP aims at advancing smallholder agricultural commercialization in a number of provinces. ADFSP seeks to improve agricultural diversification in western and northwestern provinces.

Some of the challenges in managing these donor projects relate to lack of sustainability, poor monitoring and evaluation, overlapping interests, diversion of public sector officials' time away from core government activities, and a lack of effective coordination. Other challenges pertain to how project objectives match with national development objectives as espoused in the FNDP. Often donor projects have an agenda that is de-linked from the national development agenda. Projects such as SHEMP and ASP have a scheduled end in 2007. There is no link in focus and scope between the outgoing and incoming projects. In such a scenario, discontinuity is unavoidable. The effectiveness of these projects will be severely limited unless there is synergy and continuity among them and with national strategies.

Table 4. Multi-lateral and Bi-lateral Donor Funded Programs (Real billion Kwacha 2006 = 100), 2001-2006, Zambia

Agricultural Development Programs	2001	2002	2003	2004	2005	2006
<i>Multilateral Programs</i>						
Southern Province Household Food Security Program (IFAD)	0	8	0	0	0	0
Smallholder Enterprise and Marketing Program (IFAD)	0	7	0	20	16	19
ASIP/ZAMPIP Eastern Province (ADB)	36	29	4	17	16	35
Small-scale Irrigation Project (ADB)	10	9	15	16	12	13
Sustainable Land Management (GEF) (IDA-World Bank)	0	0	0	1	5	1
Small and Medium Enterprise Trade and Investment Project (ADF)	0	0	0	0	0	4
Smallholder Agricultural Production and Marketing Support (ADB)	0	0	0	0	0	26
Agriculture Development Support Program (WB)	0	0	0	3	2	17
Agricultural Diversification and Food Security Project (EU)	0	0	0	0	0	12
Smallholder Livestock Improvement Program (IFAD)	0	0	0	0	0	7
Kwando-Zambezi Tsetse and Tryps Eradication Project (ADB)	0	0	0	0	0	12
Economic Diversification (ADB)	0	0	46	0	0	0
<i>Bilateral Programs</i>						
Participatory Approach to Village Dev in Isolated Areas (JICA)	0	0	0	1	1	2
Luapula Agricultural & Rural Development (Finland)	0	0	0	8	0	16
Crop Monitoring (DFID)	0	0	0	0	0	1
Luapula Food Security, Nutrition Action and Communication (Belgian)	0	0	0	0	1	5
Agriculture Support Program (SIDA)	0	0	0	0	0	35
Development Through Empowerment of Rural Communities (JICA)	0	0	0	0	0	2
Agricultural Policy and Monitoring Project (SIDA)	0	0	0	0	0	1
<i>Government of Zambia</i>						
Zambia Cooperative Federation (ZCF)	0	5	0	0	0	0
Smallholder Irrigation and Water Use Program	0	1	0	0	0	1
Animal Husbandry Credit Revolving Fund	0	7	0	0	0	0
Small Scale Farmer Commercialization	0	0	0	13	0	0
TOTAL	46	66	90	78	53	211

Source: GRZ Various years

3.5. Poverty Reduction Programs

There is a strong link between poverty increases in Zambia and a stagnant economy. To reverse these poverty trends, the government has prioritized spending for PE. Government approved spending towards PRP in Zambia has increased in real terms from ZKW142 billion in 2001 to ZKW270 billion in 2006 (Table 5). Over the past five years, PRP funding supported out-grower schemes, farm block and land development, livestock restocking and disease control, the Fertilizer Support Program (FSP), the operating costs of the Food Reserve Agency (FRA), agricultural research, and extension projects (Table 5). In 2003, allocations rose substantially for FRA. This rise is attributed to a ZKW240 billion (nominal) release for maize imports. Since 2004, allocations for PRPs in general have increased, but 80% or more of the funding is for only two programs, the FSP (which provides subsidized fertilizer to small farmers) and the FRA. Although other programs have continued to receive funding, their share of the funds have dwindled drastically. The genetic advances that were a

Table 5. Annual Budget Allocations to Poverty Reduction Programs (Real million Kwacha 2006 = 100), 2001-2006, Zambia

Poverty Reduction Programs (PRP)	2001	2002	2003	2004	2005	2006
Out-grower schemes	0	22	10	2	1	2
Land and farm block development	12 ^a	3	22	18	7	6
Farm institutes and training centers rehab	0	9	4	1	3	2
Livestock restocking and disease control	14	21	10	2	3	3
Fertilizer Support Program	69	53	73	88	149	199
Food Reserve Agency	0	0	364 ^b	59	63	50 ^c
Fisheries development	0	4	5	1	1	1
Rural Investment Fund	44	11	3	2	2	1
Agricultural research	0	4	1	2	2	1
Community extension	0	0	0	1	2	1
Seed multiplication	0	4	2	0	0	0
Other poverty reduction programs ^d	0	8	12	2	4	4
TOTAL	139	138	505	178	237	270

^a This amount was allocated for irrigation development.

^b 72% of this amount was a grant from World Food Program and GRZ contributed the balance for the purpose of emergence maize imports following the 2002/03 agricultural season drought.

^c The disbursed funds exceeded the allocated by over ZKW200 billion.

^d These include irrigation development, provision of ARVs, crop forecasting survey and farmer registration.
Source: GRZ Various years

major factor in maize productivity growth in earlier decades have waned as funding by both donors and government has declined.

Targeting PRP expenditures toward the provision of public goods is crucial for sustainable agricultural growth and poverty reduction. A great deal of research evidence from southern Africa as well as around the world indicates that the greatest contribution that public sector resources can make to sustained agricultural growth and poverty reduction is from sustained investment in crop science, effective extension programs, physical infrastructure, and a stable and supportive policy environment (Mellor 1976; Byerlee and Eicher 1997; Alston et al. 2000; Evenson 2001; Fan, Zhang, and Rao 2004).

3.6. Agriculture Infrastructure and Social Relief Spending through Other Ministries

Part of the sector's public budget is channeled through other ministries. These include the Ministries of Finance and National Planning, Energy and Water, Works and Supply, Community Development and Social Services, and Ministry of Lands. These allocations pay for relief input services, electrification, construction of roads, dams, and land development (Table 6).

The trend in approved spending for agricultural infrastructure has not only been downwards but also unstable. Additional resources towards infrastructure projects are also provided under PRPs (see Table 5).

MACO is thought of as a driver of commercial agricultural activities. As such, safety net, drought recovery, and emergency relief support is channeled through the Ministry of Community Development and Social Services and the Office of the Vice President (OVP). The dominant program under this category is the allocation towards the Food Security Pack

Table 6. Annual Budget Allocations to Agricultural Programs Funded through Other Ministries (Real million Kwacha 2006 = 100), 2001-2006, Zambia

Allocation to Other Ministries	2001	2002	2003	2004	2005	2006
Food Security Pack Program (Community Development)	69	18	15	36	21	15
Electrification of Nasanga Farm Block (Energy and Water Dev)	0	0	6	1	3	0
Rehab and Construction of Earth Dams (Energy and Water Dev)	0	18	10	2	4	4
Land Alienation and Farm Block Development (Lands)	2	2	0	3	2	1
Manshya/Serenje Farm Block Road (Works and Supply)	0	0	0	1	2	3
Drought Emergence Recovery Project	0	0	0	0	20	0
Financial restructuring of NCZ	0	0	0	0	3	6
Post Harvest Survey – CSO	0	0	0	0	2	1
Fish Catch Assessment Survey – CSO	0	0	0	0	0	1
Procurement of food security packs – OVP	0	0	0	0	7	0
Procurement of 2 nd round of vaccines – OVP	0	0	0	0	2	0
Community Dev & Social Services – Farmer Support Program	0	0	0	0	0	1
TOTAL	71	37	31	43	66	32

Source: GRZ Various years

under the Ministry of Community Development and Social Services. The Food Security Pack distributes free seeds for maize and legumes and cuttings for cassava and sweet potatoes. Despite the notable role the program has played in the expansion of cassava and sweet potato production nationwide, support from government has declined in real terms. Other notable allocations were directed at OVP for the Drought Emergence Recovery Project. Under this project, crop inputs and livestock vaccines were procured and given free to farmers.

Nevertheless, there is raging debate on whether these safety net and relief programs deserve to be categorized under the agricultural budget. Inclusion is perceived to give a false impression that the sector is receiving considerable public resources. Over the last six years, more than half of these resources have gone towards procurement of inputs for relief distribution.

3.7. Other Payments

The sector also supports a number of quasi-government/statutory institutions by providing annual grants. The main beneficiary of the grants is the International Red Locust Center whose regional office is hosted in Zambia. These grants are also provided to institutions such as Coffee, Tobacco Boards, and Livestock, Cotton and Research Trusts to enable these carry out their work according to expectations. Other payments are for subscriptions to various international organizations such as IFAD, FAO, ISTA, and SADC. The sector gets scientific information, research funds, and expertise generated by these organizations.

Finally, the budget also supports provincial and district activities. Farmers in each province have their own unique needs. The government supports particular activities in each province. The allocation towards these activities has consistently declined between 2003 and 2006. This probably signifies a deliberate move by government to mainstream its development activities.

4. VARIATION IN AMOUNT REQUESTED, APPROVED, AND RELEASED

In each budget cycle, MACO always gets an opportunity to present a budget that reflects needs. Controllers in MACO have a reasonable idea what size budget they need for their establishment to function effectively and deliver on its mission.

Table 7 shows that MACO did not get all the resources they requested in the years analyzed. The approved resources ranged from 30% to 91% of the resources requested. The average over the period was 72%. This cannot entirely be explained by the adoption of the cash budget system alone. Prior to the implementation of the cash budget system in 1994, resources approved for allocation were less than the amounts requested. Under-funding to MACO implies that planned activities cannot be carried out. Before the end of each budget cycle, the government prepares a supplementary budget. For each year, the total approved spending is the sum of funds initially approved and the supplementary funds approved later.

The size of the budget approved for the sector is important, but this does not correspond with the resources that will be released as the budget gets implemented. This is very crucial because none or partial release of funds means that several programs will not be carried out. Figures in Table 8 show that the actual resources released do not always coincide with the amounts approved.

The release of funds shows a cyclical pattern of highs followed by lows. It is not clear whether highs are characterized as post drought or lean periods, while lows represent the periods after good harvests. Following any grain-deficit season, the government commonly introduces a line item for grain imports within the sector's budget. The seasons of 1991/92, 1994/95, 2002/03, and 2004/05 were characterized by significant drought, and the government responded in the subsequent marketing season by allocating additional resources to import grain. Unfortunately, inclusion of maize imports under the MACO budget bloats the budget and presents an impression that the sector was provided with considerable resources. In 2003, out of the total of ZMK499 billion given to the sector, ZMK240 billion was for maize imports.

Table 7. Variation in Amounts Requested by the Ministry of Agriculture and Amounts Approved by Ministry of Finance, 1992-1999, Zambia (2006 Prices)

Year	Requested	Approved	% Approved
1992	257,516	76,751	30
1993	193,700	134,060	69
1994	483,317	441,358	91
1995	207,416	132,388	64
1996	230,633	192,058	83
1997	349,519	296,530	85
1998	246,803	175,183	71
1999	224,859	143,752	64
2006	745,074	650,000	87
Annual Average	326,538	249,120	72

Source: GRZ 2002

Table 8. Amounts (ZMK million) of Public Resources Approved and Released to the Agricultural Sector in Nominal Prices, Zambia, 1981-2005

Year	Real 2006 Prices		% Released
	Approved	Released	
1981	3,922	3,717	95
1983	14,902	11,468	77
1984	23,362	21,140	90
1985	20,907	19,280	92
1986	14,537	15,270	105
1988	82,394	64,301	78
1991	93,062	23,141	25
1992	76,751	67,178	88
1993	134,060	95,301	71
1994	441,358	168,398	38
1995	132,388	143,183	108
1996	192,058	129,088	67
1997	296,530	164,793	56
1998	175,183	128,155	73
1999	143,752	119,991	83
2000	315,330	173,431	55
2001	425,570	258,852	61
2002	635,294	712,463	112
2003	737,645	876,600	119
2004	429,811	426,052	99
2005	495,151	490,891	99

Source: GRZ 2002

The discipline to match releases with the amounts released has improved under the new Deal Government. According to Table 8, since 2002, more than 90% of the resources have been released. It is not clear whether this pattern of consistency is representative of all other ministries or is unique to MACO. On four occasions, the government disbursed amounts more than was approved. This happens whenever there is unplanned expenditures, such as maize imports, and increased spending on crop purchasing and fertilizer subsidies.

While releases for the sector may be approximate or even exceed allocations, it does not follow that each budget item receives all the approved funding. Adjustments do occur within the sector budget as or when some programs get more funds released than approved. This increase is accounted for by decreased amounts of funds released to other programs. Where releases exceed allocations, such as in 2002 and 2003, the adjustments increased funds in some programs without decreasing funding to other programs. This can only be met through increasing the total funds for the sector.

A line-item breakdown of the match between funds approved and released reveals that a fraction of the funds approved for RDC are released (Table 9). Thus the 50% fall in real level of allocation for research and transport expenditures considerably understates the relative shortage of RDC funds. Capital expenditure had funds approved for 2002 and 2003 but none were released. Between 2002 and 2005, no funds were released for capital expenditure. Thus the level of allocation of resources does not give the full picture of the amount of resources that will be made available for spending.

The sometimes significant disparity between budget authorizations and actual releases suggests that the budget itself offers only a notional guide as to actual spending priorities. In order to track actual budget performance, it is critical to examine actual spending figures, although these only become available after a two-year lag. Even though allocations and releases to agriculture may rise again in the future, the composition of spending to agriculture is an equally important issue.

Table 9. Variation in Amounts Approved and Amounts Released for Spending by MACO, 2001-2005, Zambia

	2001		2002		2003		2004		2005	
	Approved	% Released								
MACO Budget										
Personal Emoluments	15	205	29	134	26	204	68	84	75	99
Recurrent Departmental Charges	19	55	20	63	25	63	19	53	44	89
Grants and Other Payments	2	25	2	52	10	267	9	67	4	100
Poverty Reduction Programs/HIPC	33	5	48	23	57	81	141	115	221	100
Fertilizer Support Program							70	137	140	101
Strategic Food Reserves							47	100	59	100
Other PRPs							24	75	22	95
Capital Expenditure	38	41	18	0	1	0	0		0	
TOTAL	107	55	117	55	119	119	239	99	344	99

5. SUMMARY AND CONCLUSIONS

Budget allocations to agriculture provide a statement of the government's intent. Since 2000, allocations for agriculture have ranged between 4.5% and 9% of the total government spending. Over the past three years, they have hovered in the range of 5% to 6%. If Zambia is to meet the 10% CAADP target as specified in the Maputo Declaration of 2003, public investment in agriculture will need to increase significantly over the coming years.

The composition of public spending matters as much as the total amount spent. In some instances, government spending arguably operates at cross-purposes to stated agricultural policy. Despite a stated policy of promoting crop diversification, budget allocations indicate an overwhelming focus on promoting maize production. Maize price supports and fertilizer subsidies through the operations of the FRA and the FSP currently take up 80% of the government's allocation to PRP. Moreover, the subsidies currently administered by the FRA sometimes conflict with government goals of stimulating private trade. In spite of a stated policy emphasis on irrigation development, actual investment allocations remain small. Growth in PE expenditures has not been matched by expenditures for RDCs. This imbalance has left agricultural researchers, extension agents, and other specialist service providers with increasingly little resources on which to operate. There are a number of research programs, such as food crop and legumes research, fiber crops research and soil survey analysis, which are no longer being carried out at research institutions due to the lack of adequate resources and trained personnel. The genetic advances that were a major factor in maize productivity growth in earlier decades have waned as funding by both donors and government has declined. Effectively, public sector agricultural research and extension has come to a standstill in Zambia. Yet a great deal of research evidence from southern Africa as well as around the world indicates that the greatest contribution that public sector resources can make to sustained agricultural growth and poverty reduction is from sustained investment in crop science, effective extension programs, physical infrastructure, and a stable and supportive policy environment (Mellor 1976; Byerlee and Eicher 1997; Alston et al. 2000; Evenson 2001).

The agriculture sector plays a crucial role in Zambia's overall economy. As such, agricultural growth and increased competitiveness will remain the main avenues for poverty reduction and increased rural incomes. There is no doubt that public agricultural investments are associated with growth in per capita agricultural GDP. Therefore, expenditure management is one instrument the government can use to achieve the required growth in this important sector. Given the fluctuations between approved and actual expenditures, policy analysis should dwell more on the latter expenditures.

Analysis of actual budget disbursement reveals that allocations offer only a rough guide as to actual government spending priorities. Since 2000, actual spending on agriculture has ranged from 55% to 119% of amounts authorized. And spending, above and below authorizations, vary significantly by line item. While the FSP and the FRA spending has tended to exceed authorized levels, RDCs tend to fall consistently below authorized levels. These disparities suggest that the budget authorization process is only a small part of the decision making machinery affecting resource flows. Improved transparency and accountability in government budgeting require increased focus on decisions affecting the release of authorized funds.

Zambian policy makers should be focused on improving the effectiveness and nature of fiscal spending on agriculture. With a properly functioning agricultural fiscal system, limited

resources are expected to be allocated efficiently among competing needs. Merely spending more on agriculture without improving the policy environment would be economically inefficient and fiscally expensive.

5.1. Future Research Needs

Additional analytical work is needed to assess the role of tax expenditures. The government has provided considerable incentives to encourage production of export crops, including the incentive to claim any value added tax paid for inputs and supplies used in export crop production. These incentives provide real resources toward farmers and processors of export crops. Little is known about how much these incentives amount to in revenue terms. The government continues to provide these incentives and a focus on budget expenditures alone gives an inadequate picture of the resources the government is devoting towards agriculture.

Furthermore, there is no study that has been able to analyze the level of annual private investment into the sector. Several commercial banks have agricultural lending portfolios. Knowledge of the trends in level and type of investments commercial banks provide to farmers and agribusinesses is important in understanding how public and private investments can complement each other. Development partner funding to agriculture outside the budget needs to be studied in order to assess fully the level, quality, and impact of donor funds to the sector.

Additional work is needed to evaluate returns to alternative public and private investments. It is not enough to characterize public investments as having low returns without identifying the high-return investments. Different types of investments have differential effects on growth and poverty reduction, and studies should measure the individual impacts. Assessing the regional differences in returns to investments will not only help the government allocate resources across competing needs but across locations.

Finally, serious effort is needed to internalize monitoring and evaluation systems to enable MACO to monitor and evaluate the impacts of various public expenditures and to set future investment priorities to achieve policy objectives. Such a system contributes to accountability, efficiency, and decision making.

APPENDIX. BUDGET PROCESS AND DECISION MAKING

The government introduced a cash budget system in 1993. This meant that government expenditure could only be made if it was supported by actual available resources. The adoption of this system signaled government determination to maintain fiscal discipline and to do away with unplanned expenditure overruns. The challenge for a cash budget system is that disbursements are not complete, consistent, and timely. There are discrepancies between releases and budget allocations. Allocations, therefore, are an unrealistic indicator of the amount of public resources that may be spent for the sector.

Currently, the budget process in Zambia evolves around the MTEF, which is a three-year rolling framework within which available resources (both government and donor) are divided between sectors on the basis of achieving government objectives. The objectives of the MTEF process are to ensure efficient allocation and management, development, and maintenance of fiscal discipline in planning and management of public resources. It also ensures commitment to budget priorities at the national and sector levels, and to improvement of accountability and predictability of resources.

The MTEF links the annual programs and budgets. It prioritizes programs and expenditures in relation to the periodic plans, goals, and objectives. It also adjusts the expenditure programs envisaged in the national development plans to a level consistent with resource availability.

As regards resource allocation, the MTEF approach involves a top down and bottom up process of estimating total resource available for a three-year period and dividing these resources between Ministries, Provinces, and Spending Agencies (MPSA) based on government priorities. This process is influenced by broad expenditure policies including appropriate levels of staffing and structure of the civil service, wage policies, any planned salary increases and recurrent costs, capital expenditures, and policies on levels of donor flows.

At the national level, once the total resources are estimated, the next stage is to provide for constitutional expenditures for which the government has a legal obligation. These include debt payments, pensions, transfers to local government, earmarked revenues for special funds such as fuel levy, contractual commitments for payment of personnel (retirement and pension entitlements), domestic arrears (debt servicing and amortization) and in some cases, contracts for the delivery of goods and services that extend between budget periods and Agreements and Accords with bilateral and multilateral agencies for the counterpart financing for projects and programs.

On allocation between MPSAs, the decision about how to allocate resources between these is based on a combination of factors such as government objectives. For instance, the Poverty Reduction Strategy Paper (PRSP) states that government priorities are based on economic growth and poverty reduction. In this regard, funds should be allocated in line with achieving these objectives. An analysis of the issues within a sector and the constraints to achieving planned outcomes should guide resource allocations. Sectoral linkages must be clearly defined, such as the need for roads in the agriculture and other sectors so as to define the requirements for roads expenditures and the role of government in the sector—whether government is a provider of services and infrastructure, a facilitator of private sector development, or a regulator of private sector activity.

Though the process of allocating resources between MPSAs is often considered a technical process based on the costs of achieving government objectives in each sector, the way in which government sets out to achieve these objectives, i.e., its policy choices, are political and not technical. Thus resource allocation choices are made by the Cabinet because the budget is a reflection of a set of policies by the government in power. The Cabinet is held accountable for delivery of macroeconomic performance and service delivery to the population through the democratic process and is therefore responsible for allocating resources. Though these choices are political, the Cabinet will always rely on technocrats to provide the necessary technical details on policy costs and options.

The Green Paper and Call Circular that include inputs from MCGs are consolidated with Macroeconomic and Fiscal Framework into proposals for MPSA ceilings for the MTEF period. This is presented to the Cabinet in a draft Green Paper for discussion and approval. The Green Paper is then presented to the Parliamentary Committee and Civil Society for comments after which Budget Guidelines are sent to MPSAs to guide preparation of the MTEF budget. The budget is set within a three-year framework. Projections are made for all types of expenditure, both statutory and discretionary, within the framework.

MPSAs develop comprehensive plans focused on achieving agreed objectives and outputs (targets). The strategic plans are a basis of the budget. The strategic plan sets out the MPSA's objectives, outputs, and activities from which an activity based budget is prepared. The MPSAs are required to prioritize their activities and related costs to fit within the ceilings provided from the top due to limited resources.

Regarding resource allocation within a MPSA, the factors that guide the allocation of resources within a MPSA are the same as those at the national level. These include programs that achieve government objectives with the least cost and within the resources (both financial and human) available to the organization. The role of government for the particular program, i.e., if government is the main provider of a service, then the expenditure requirements would be higher than when the government is mainly facilitating private sector growth and whether there are options for involving the private sector and/or NGOs and communities in the delivery of services, as well as other options such as charging for services.

In view of the foregoing, MACO Headquarters allocates ceilings to all cost centers within the ceiling provided by Ministry of Finance and National Planning (MOFNP) in the Call Circular, reflecting the priorities of government as it is stipulated in the Green Paper.

The Budget Development Unit of Policy and Planning Department in MACO conducts training for all officers that are involved in the budget preparation exercise. The officers are drawn from all departments, provincial headquarters, and training institutions. The objective of the training is to ensure that all officers involved in the exercise have the capacity to prepare realistic activity based budgets that reflect the priorities of government.

The cost centers, i.e., departments, provinces, districts, research stations, and training institutions, will then prepare their budgets according to the allocated ceilings. It is worthwhile to note that cost centers are given a block ceiling from which they prepare their budgets, which will reflect their priorities and that of the government. Budgets from every cost center are then aggregated into districts, provinces, research stations, training centers, and departments after which they are consolidated into the MACO budget.

After the MACO budget has been consolidated, a Budget Framework Paper (BFP) that defines sector goals and outcomes to which the Ministry's policy framework, objectives, programs, outputs, and activities are linked is prepared. Budget hearings are held to discuss BFP with MOFNP.

After the budget hearings, MOFNP updates the macroeconomic framework and consolidates MPSA's Budget Framework Papers into the MTEF budget, based on the outcome of budget hearings and Green Paper comments from the Estimates Committee and Civil Society. The MTEF document is then discussed and approved by the Cabinet along with final ceilings for the budget and MTEF period.

After the Cabinet approval of the MTEF document, the MPSAs will finalize their budgets and forward estimates based on final ceilings approved by the Cabinet. Thereafter MOFNP finalizes the MTEF document and the budget estimates for final approval by the Cabinet and presentation to Parliament.

Once the budget has been approved by Parliament, MACO prepares quarterly funding profiles that reflect MACO's funding preference during that quarter. All departments and cost centers indicate when they require resources for particular activities or programs. Once this is consolidated, the profile is submitted to the Budget Office for funding. Ideally, the funding profile should form the basis for funding in that quarter, but due to resource constraints, the Ministry does not usually receive funding as requested.

The Budget Office releases funds activity based to MACO Headquarters. MACO Headquarters will then disburse the funds to cost centers as reflected on the funding advice slip from the Budget Office. This implies that funds have to be varied from one expenditure item to the other and approval is given by Parliament through a supplementary budget before the end of the year. This also happens when there is an emergency such as the animal disease outbreak which was not adequately budgeted. Such expenditures are usually normalized through a supplementary budget.

Under the MTEF, the government has made its intentions clear about the budget ceilings for the sector up to 2008. This framework provides an opportunity to controlling officers to submit a prioritized list of their needs. This ideally ensures that the final budget for a given sector reflects the priorities and plans that the Ministry would like to encourage. After submitting their needs, experts in the Budget Office analyze what is suitable and make allocations according to the size of the total budget.

The controlling officer in MACO has expressed concern that the final budget does not reflect what was submitted by the Ministry. The decisions on the amount of resources to allocate to a particular sector and within the sector are well outside the reach of controlling officers. Although other stakeholders such as ZNFU are consulted on the revenue issues, they too have no direct influence over the final decisions on tax issues. Such decisions are left to a team of financial experts in the Budget Office under the Ministry of Finance.

Furthermore, stakeholders in agriculture do not participate in tracking the actual disbursements of the funds to monitor how allocations and priorities change. When it comes to disbursements, the Ministry of Finance has leeway on what to fund and what to cut. This action is not transparent and it takes power out of controlling officers. The power the Secretary to the Treasury has over these budget matters is highly centralized.

Ideally, the role of allocation to different sectors should be left to a committee of controlling officers with an equal stake. The power of allocation within a given sector should be left to the relevant Ministry to decide so that their needs and priorities are reflected. The role of the Budget Office will be strictly to disburse the funds. These changes can only be made if legislation is introduced with the sole purpose of reforming the current system. Participation of other stakeholders in the decisions over public resource allocation across and within sectors is an important governance issue.

REFERENCES

- Alston, J.M., C. Chan-Kang, M.C. Marra, P.G. Pardey, and T.J. Wyatt. 2000. *A Meta-analysis of Rates of Return to Agricultural R&D*. IFPRI Research Report No. 113. Washington, D.C.: International Food Policy Research Institute.
- AU/NEPAD. 2006. Agricultural Expenditure Tracking System in African Countries. Paper presented at the International Conference on Championing Agricultural Successes for Africa's Future: A Parliamentarian's Dialogue on NEPAD, May, Somerset West, South Africa.
- Birner, R., and N. Palaniswamy. 2006. The Political Challenges of Increasing Public Spending for Agricultural Development in Africa. Paper presented at the International Conference on Championing Agricultural Successes for Africa's Future: A Parliamentarian's Dialogue on NEPAD, May, Somerset West, South Africa.
- Byerlee, D., and C.K. Eicher, eds. 1997. *Africa's Emerging Maize Revolution*. Boulder, CO: Lynne Rienner.
- Evenson, R.E. 2001. Economic Impacts of Agricultural Research and Extension. In *Handbook of Agricultural Economics*, eds. B.L. Gardner and G.C. Rausser. Amsterdam: North Holland/Elsevier.
- Fan, S., X. Zhang, and N. Rao. 2004. *Public Expenditure, Growth and Poverty Reduction in Rural Uganda*. Development Strategy and Governance Division (DSGD) Working Paper No. 4. Washington, D.C.: IFPRI.
- GRZ. Various years. Yellow Books. Lusaka: Ministry of Finance and National Planning.
- GRZ. 2002. Ministry of Agriculture, Food and Fisheries, Agricultural Statistical Bulletin. Database Management and Early Warning Unit. Lusaka: Ministry of Agriculture, Food and Fisheries.
- GRZ. 2004. *Ministry of Agriculture and Cooperatives Budget Framework Paper (2005–2007)*. Lusaka: Ministry of Agriculture and Cooperatives.
- GRZ. 2006. From Sacrifice to Equitable Wealth Creation. 2006 Budget Address by the Minister of Finance and National Planning Hon. Ng'andu P. Magande, MP, February.
- Hill, C.B., and M.F. McPherson. 2004. *Promoting and Sustaining Economic Reform in Zambia*. J.F. Kennedy School of Government. Cambridge, MA: Harvard University Press.
- Howard, J.A., and C. Mungoma. 1996. *Zambia's Stop-and-Go Revolution: The Impact of Policies and Organizations on the Development and Spread of Maize Technology*. MSU International Development Working Paper No. 61. East Lansing: Michigan State University.
- Jansen, D., and K. Muir. 1994. Trade, Exchange Rate Policy and Agriculture in the 1980s. In *Zimbabwe's Agricultural Revolution*, ed. M. Rukuni and C. Eicher. Harare: University of Zimbabwe Press.

Mellor, J. 1976. *The New Economics of Growth: A Strategy for India and the Developing World*. Ithaca, NY: Cornell University Press.

Zorya, S. 2006. *Improving Agricultural Fiscal Policy in Ukraine*. Environmentally and Socially Sustainable Development (ECSSD) Working Paper No. 44. Washington, D.C.: World Bank.