

Review of Public Spending to Agriculture

A joint DFID / World Bank study

Main Study

&

Country Case-Studies

**Stephen Akroyd
Prof. Lawrence Smith**



Oxford
Policy
Management

FINAL DRAFT

January 2007

Funded by a joint DFID/World Bank programme - How Can Government Promote Pro-Poor Agricultural Growth. The programme aims to understand and share international best practice on how governments can better target public spending to maximize agriculture's contribution to wider economic growth and poverty reduction.

CONTENTS

1. INTRODUCTION	1
2. LEVELS AND TRENDS IN PUBLIC EXPENDITURE ON AGRICULTURE.	2
2.1 Introduction	2
2.2 Expenditure at the regional level	2
2.3 Country case studies of public expenditure on agriculture	5
3. AGRICULTURE AND THE BUDGET PROCESS	11
3.1 Introduction	11
3.2 Policy reforms and their impact on agricultural expenditure	11
3.3 Government political economy and attitudes to agricultural expenditure	13
3.4 Public expenditure management reforms	16
4. SUMMARY AND RECOMMENDATIONS FOR FURTHER STUDY	19
Annexes	
GHANA	26
KENYA	34
UGANDA	43
ZAMBIA	51
VIETNAM	63
ARGENTINA	67

List of Acronyms

ABB	Activity-based budgeting
CAADP	Comprehensive Africa Agricultural Development Programme
CCS	Commitment Control System
CFAA	Country Financial Accountability Assessment
GDP	Gross Domestic Product
HIPC	Highly Indebted Poor Countries Initiative
IDA	International Development Association
IFMIS	Integrated Financial Management and Information System
IMF	International Monetary Fund
IFPRI	International Food Policy Research Institute
LAC	Latin America and Caribbean countries
MAAIF	Uganda Ministry of Agriculture, Animal Industries and Fisheries
MDRI	Multilateral Debt Relief Initiative
MoFA	Ghana Ministry of Food and Agriculture
MTEF	Medium Term Economic Framework
NAADS	Uganda National Agricultural Advisory Services
NGO	Non-governmental organisation
PEMFA	Public Expenditure Management and Financial Accounting
PMA	Uganda Plan for Modernisation of Agriculture
PRGF	Poverty Reduction and Growth Facility
PRS	Poverty Reduction Strategy
PRSP	Poverty Reduction Strategy Paper
R&D	Research and development
SAL	Structural Adjustment Loan
SOE	State-owned enterprise
SSA	Sub-Saharan Africa

Review of Public Spending to Agriculture

1. Introduction

The joint DFID / World Bank programme, *How Can Government Promote Pro-Poor Agricultural Growth* is an attempt to create and disseminate evidence on what levels and patterns of government interventions stimulate pro-poor market-driven agricultural growth, and to support Government departments and donor institutions in identifying and implementing public policy interventions to support this objective. The goal of the programme is enhance the future contribution of agriculture to pro-poor economic growth and poverty reduction. This will be achieved through the project development objective: to share international best practice on how governments can better target public spending to maximise agriculture's contribution to wider economic growth and poverty reduction.

The overall programme comprises three modules. This study forms part of Module One which reviews public investments in agriculture to achieve growth and poverty reduction. Module One consists of four components:

1. Review of public spending to agriculture in developing countries;
2. Growth and poverty impacts of agriculture related public expenditures;
3. Tools for monitoring public spending and for improving the effectiveness of public interventions in agriculture, and;
4. Dissemination of Module One results.

This paper addresses the first of these four components.

Following this introductory section, Section 2 provides evidence of trends in public agricultural expenditure at regional level and at a national level in 6 case study countries: Argentina, Ghana, Kenya, Uganda, Vietnam and Zambia. Within the limits of data availability, this examination of overall trends is followed by a breakdown of expenditure by economic and functional classifications. Section 3 examines the impact of budgetary processes on agricultural expenditure, focusing on: donor-induced economic policy reforms and their impact on spending on agriculture; government attitudes to agriculture expenditure, and; public expenditure management reforms. Section 4 provides a summary of the report's findings and recommendations for further study in Module 2 of the research programme.

2. Levels and trends in public expenditure on agriculture.

2.1 Introduction

For many developing countries, agriculture is the largest sector in terms of its share in GDP and employment. More importantly, the majority of the world's poor live in rural areas and depend upon agriculture for their livelihood. Agriculture is therefore critical both for economic development and poverty reduction. It follows that in developing countries spending to agriculture is one of the most important government instruments for promoting economic growth and alleviating poverty in rural areas (Fan and Saurkar, 2006).

There have been many studies of the relationship between government expenditure and economic growth. Some of these studies have looked specifically at the link between government spending and agricultural growth and poverty reduction (Elias 1985; Fan, Hazell, and Thorat 2000; Fan, Zhang, and Zhang 2000). These studies show positive growth and poverty reduction effects from public spending in agriculture. Yet, in the majority of developing countries aid and public expenditure to agriculture is stagnant or declining.

2.2 Expenditure at the regional level

Fan and Saurkar (2006) have extended previous work by Fan and Rao (2003) to examine trends in public expenditure in 44 developing countries over the period 1980 to 2002 (Table 1). Their evidence shows that, in real terms, public expenditure to agriculture has increased over the last twenty-five years. However expenditure to agriculture as a share of agricultural GDP indicates a fall from 1980 to 1990 followed by a recovery to 2002, whilst agricultural expenditure as a proportion of total government spending has shown a declining trend (Table 2).

Table 1: Public expenditure in agriculture 1980-2002

Region	Constant 2000 \$ (bn)				Percentage of agricultural GDP			
	1980	1990	2000	2002	1980	1990	2000	2002
Africa (17)	7.3	7.9	9.9	12.6	7.4	5.4	5.7	6.7
Asia (11)	74.0	106.5	162.8	191.8	9.4	8.5	9.5	10.6
L. America and Caribbean (16)	30.5	11.5	18.2	21.2	19.5	6.8	11.1	11.6
Total Developing Countries	111.8	125.9	190.9	225.6	10.8	8.0	9.3	10.3

Source: Fan and Saurkar (2006) Table 2.3. Calculated using data from International Monetary Fund's Government Financial Statistics Yearbook (various issues).

Real agriculture expenditures

The increase in real expenditures on agriculture is most apparent for the Asian countries in the study, which experienced a near tripling of real sector expenditures and a trend annual growth rate of 4.4 percent; the highest growth amongst the three regions. The African countries experienced a more modest increase in real expenditure on agriculture at an annual rate of 2.5 percent, and with much of the increase coming since 2000. For the Latin America and Caribbean (LAC) countries, real expenditure on agriculture declined sharply between 1980 and 1990, recovering somewhat since then but remaining significantly below the 1980 level. LAC is the only region that has reduced its real spending in agriculture, with an annual reduction

of 1.6 percent. Six out of the 16 Latin American countries included in the Fan and Saurkar study reduced their government expenditures in agriculture over this period.

Agricultural expenditure as a proportion of agricultural GDP

In developing countries agricultural spending as a percentage of agricultural GDP has averaged 10 percent or less over the period 1980 to 2002 (Table 1). In Africa, agriculture expenditure as a percentage of agricultural GDP remained at relatively similar levels (5.4 - 7.4 percent) throughout the study period. About half of African countries decreased agriculture expenditure relative to agricultural GDP. In Asia, expenditure as a percentage of agricultural GDP was much higher (8.5 - 10.5 percent) than in Africa. For Latin America, agricultural spending as a percentage of agricultural GDP decreased from 19.5 percent in 1980 to 11.5 percent in 2002.

The weighted averages used in Table 1 mask significant variations between countries in the relative levels of public spending allocated to agriculture. This is most noticeable in Africa, where public expenditure on agriculture in 2002 ranged from 73 percent of agricultural GDP in Botswana, to just 0.8 percent in Cameroon and 0.7 percent in Ghana (Fan and Saurkar, 2006).

Agricultural expenditure as a proportion of total government expenditure

The Fan and Saurkar study shows that the share of public spending allocated to agriculture declined from over 11 percent in 1980 to under 7 percent in 2002 (Table 2). This is a faster rate of decline than that shown by the share of agriculture in GDP, when fell from 15.1 to 11.3 percent for all developing countries over the same period (Earth Trends, World Resources Institute¹). For sub-Saharan Africa over the same period, agriculture's share of GDP fell from 18.8 to 16.7 percent and agriculture's share of total government spending fell from 6.4 percent to 4.5 percent of spending. This is in contrast to the Maputo Declaration (July 2003) when the heads of state of the Assembly of the African Union committed their support to the Comprehensive Africa Agriculture Development Programme (CAADP) and pledged to raise spending on agriculture to 10 percent of the budget within the next five years (i.e. by 2008).

Table 2: Shares of total government spending by major sectors, 1980- 2002

Sector	Agriculture			Education			Health		
	1980	1990	2002	1980	1990	2002	1980	1990	2002
Africa	6.4	5.2	4.5	12.3	14.6	14.0	3.8	4.6	8.3
Asia	14.8	12.2	8.6	13.7	17.3	15.2	5.3	4.3	4.4
L. America & Caribbean	8.0	2.0	2.5	10.0	7.7	14.1	5.9	6.1	7.6
Total	11.3	7.9	6.7	n/a	n/a	n/a	n/a	n/a	n/a

Source: Fan and Saurkar (2006) Table 2.2

In Asia, agriculture's share of government expenditure declined from 15 percent to 9 percent over the 1980 to 2002 period while agriculture's contribution to GDP fell from 8.4 to 6.2 percent. LAC experienced the most rapid decline in spending to agriculture with a fall from 8 percent to less than 3 percent of total government expenditures over the period. Meanwhile, agriculture's contribution to GDP fell from 9.6 to 5.3 percent in Central America and the Caribbean, and from 9.7 to 8.9 percent in South America.

¹ http://earthtrends.wri.org/searchable_db/index.php?action=select_countries&theme=5&variable_ID=214

The decline in relative allocations to agriculture is also in contrast to health and education, which (with the exception of health in Asia) experienced strong growth in all regions (Table 2). It is important to note however, that the quality of spending to agriculture is more important than the overall level of spending; a fact often neglected by prescriptive approaches to spending (Akroyd, 2004).

Regional agricultural R&D expenditure

Pardey et al (2006) state that, of all types of agricultural expenditure, spending on agricultural research and development is the most crucial to growth in agriculture. However, they show that there has been no measurable growth in agricultural research intensity² in the developing world since 1981. In 2000, on average, developing countries spent 0.5 percent of agricultural GDP on R&D. In the same year developed countries as a group spent 2.4 percent of agricultural GDP on research; a sizable increase over the 1.4 percent that developed countries spent two decades earlier.

Table 3: Public agricultural research expenditure, 1981-2000

Region/ country	Agricultural R&D spending Constant 2000 \$ (bn)			Share of world total (percent)		
	1981	1991	2000	1981	1991	2000
Asia-Pacific (28), of which:	3.0	4.8	7.5	20.0	24.2	32.7
<i>China</i>	1.0	1.7	3.2	6.9	8.7	13.7
<i>India</i>	0.5	1.0	1.9	3.5	5.0	8.1
LAC (27) of which:	1.9	2.1	2.5	12.5	10.5	10.7
<i>Brazil</i>	0.7	1.0	1.0	4.5	5.0	4.4
S-Saharan Africa (44)	1.2	1.4	1.5	7.9	6.8	6.3
Middle East & North Africa (18)	0.8	1.1	1.4	5.0	5.7	6.0
Developing country total (117)	6.9	9.5	12.8	45.4	47.3	55.7
World total (139)	15.2	20.0	23.0	100.0	100.0	100.0

Source: Pardey et al. (2006) Table 2.

Note: the number of countries included in the regional totals is shown in parentheses. Regional totals were scaled up from national spending estimates for countries that represented 79 percent of the reported sub-Saharan African total, 89 percent of the Asia-Pacific total, 86 percent of the Latin American and Caribbean total, 57 percent of the Middle East and North Africa total and 84 percent of the high income countries. These estimates exclude Eastern Europe and the former Soviet Union countries.

In 2000 agricultural research spending as a percentage of agriculture GDP was between 0.5 - 0.9 percent in Africa and Asia and just under 1 percent in Latin America. However, only 10 of the 26 sub-Saharan countries in the Pardey (2006) study had higher intensity ratios in 2000 than in 1981, although most countries in Asia and Latin America (9 of 11 Asian countries and 7 of 11 Latin American countries) increased their intensity ratios over the period 1991 - 2000.

² Agricultural research and development (R&D) expenditures as a percentage of agricultural GDP.

2.3 Country case studies of public expenditure on agriculture

Overall trends

Five of the six countries selected as case studies for this study are also included in Fan and Saurkar's (2006) study³ (Vietnam is excluded as historical data is difficult to obtain). These five country case studies paint a rather dismal picture. Only in Uganda is real public expenditure⁴ on agriculture in 2002 higher than it was two decades earlier in 1980. In Ghana, Zambia and Argentina there have been marked falls in real agriculture expenditures over this period. However, in Zambia and Argentina real expenditures on agriculture have increased over the last decade.

In nearly all case study countries agricultural expenditure as a share of GDP has fallen markedly or dramatically since 1980. Indeed, Uganda is the only country where agricultural expenditure as a percentage of agricultural GDP is higher in 2002 than in 1980, and even here it has only risen to just over 4 percent. While these trends come as no surprise, the low share of spending currently allocated to agriculture is of concern in these countries where agriculture and poverty are so closely interlinked.

It is worth noting that in Kenya and Uganda the share of spending to agriculture is projected to rise by 2008 (to 5.2 percent and 5.6 percent respectively), but much of this increase is driven by ambitious projections of donor financing that may not in fact materialise.

Table 4: Public expenditure in agriculture in five case study countries, 1980-2002

Country	Constant 2000 \$ (bn)			Percentage of agric. GDP			Percentage of total exp.		
	1980	1990	2002	1980	1990	2002	1980	1990	2002
Ghana	0.27	0.14	0.11 ^a	2.3	1.2	0.7	12.2	4.1	1.0
Kenya	0.43	0.50	0.38	7.7	6.6	4.0	8.4	6.0	4.6
Uganda	0.07	0.07	0.41	2.8	0.9	4.2	32.6	3.9	4.2
Zambia	0.54	0.06	0.13 ^a	60.9	4.4	7.7	23.0	2.9	5.9
Africa av.				7.4	5.4	6.7	6.4	5.2	4.5
Argentina	4.49	0.24	0.78	23.1	1.0	2.0	7.9	0.8	0.7
LAC av.				19.5	6.8	11.6	8.0	2.0	2.5

Source: Fan and Saurkar (2006) Tables 2.2, 2.3 and Appendix Table 2.4

Note: For Ghana and Zambia, 2002 values are extrapolated.

In all five countries the share of total expenditure allocated to agriculture has fallen dramatically over the past two decades (Table 4). Zambia is the only country allocating more than 5 percent of total expenditure to agriculture in 2002. However, as is discussed later, the 'quality' of much of Zambia's current expenditure is questionable. Ghana's share of expenditure to agriculture, at 1 percent in 2002, is well below the average for Africa of 4.5 percent. Similarly, Argentina at 0.7 percent of total spending allocated to agriculture is substantially below the Latin American

³ Some of Fan and Saurkar's data appears to be at variance with that collected in the individual country case studies contained in the Annex. The main reasons for this are discussed later in this Section.

⁴ Nominal values deflated by each country's implicit GDP deflator to 2000 prices and converted using 2000 purchasing power parity exchange rates (World Bank Indicators, 2006).

and Caribbean average. In 2002, Vietnam's share of total expenditure allocated to agriculture was 5.5 percent compared to an Asian country average of 8.6 percent.

It is instructive to compare the level and trends in total expenditure allocated to agriculture with the contribution of agriculture to GDP (Table 5). In Vietnam and the four African case study countries agriculture still accounts for over 20 per cent of GDP, while in Argentina it accounts for over 10 percent. As would be expected normally, in most countries the contribution of agriculture to GDP has been falling over time, but this is not the case in Zambia (due to difficulties in the mining sector) and Argentina (where exchange rate devaluation has favoured agriculture).

Generally, agriculture's share of total expenditure has fallen at a faster rate than its contribution to GDP. However, this does not hold for Uganda where the share of total expenditure allocated to agriculture has risen over the past decade while agriculture as a percentage of GDP has fallen. In Zambia, the share of total expenditure allocated to agriculture and agriculture's share of GDP have both risen over the past decade.

Table 5: Agriculture as a percentage of GDP in case study countries, 1980 - 2002

Country	Percentage of GDP		
	1980	1990	2002
Ghana	57.9	44.8	36.0
Kenya	32.6	29.5	28.3
Uganda	72.0	56.6	31.0
Zambia	15.1	20.6	22.2
Argentina	6.4	8.1	10.8
Vietnam	n.a	38.7	23.0

Source: World Development Indicators online

Case study data limitations

Defining 'agriculture'. Access to detailed agriculture sector expenditure data is problematic. In Zambia, data on budget allocations is more readily available than information on actual expenditure and there are frequently large discrepancies between the two. There is also a problem relating to how agriculture is defined⁵ - what is included and what is not - and the diversity of spending agencies involved in the sector. This is most evident in Uganda where a narrow interpretation of the agriculture sector, as defined by spending through the three core agencies shows that agriculture currently receives around 4 percent of total public spending. However a wider interpretation of agriculture, as defined by the seven pillars of the Uganda Plan for Modernisation of Agriculture (PMA) which involves expenditure through a dozen agencies indicates that the sector more broadly defined receives up to 11 percent of total spending.

The broader 'PMA' definition of agriculture includes investments usually excluded from agriculture spending data but which account for a major share of spending to rural areas and show strong positive returns in terms of their agriculture productivity improving and poverty reducing effects (e.g. spending on rural infrastructure including roads).

⁵ The IMF Government Finance Statistics (GFS) Yearbook includes forestry, fishing and hunting in the agricultural sector.

With the exception of Uganda, which includes an analysis of PMA spending, the scope of the case-studies is restricted to the assessment of spending to agriculture in terms of a narrow definition of agriculture - i.e. spending to the sector through core sector institutions and, sometimes, only through the Ministry of Agriculture.

Fiscal decentralisation. In both Argentina and Vietnam, agricultural expenditure is increasingly funded by local government and it is difficult to capture the totality of expenditure to agriculture except through detailed surveys.

In Vietnam, the agriculture ministry is responsible for sector policy but has little control over how resources are spent as around 80 percent of sector spending is through the provinces. This raises important issues in relation to the changing role of the central ministry in the sector. With weakened control over total sector spending, the role of the ministry is gradually shifting away from direct control towards a role focussed upon policy, regulation, and facilitation. However, the impact of these changes upon sector spending remains unclear. While decentralisation provides greater freedom for local authorities to increase spending to agriculture, the extent to which this occurs depends upon the priority given to agriculture. Currently there is no evidence that local governments are increasing the relative share of funds allocated to agriculture.

Donor expenditure. There is a general problem that expenditure data are not well recorded and this is especially true for donor funding which is known to be high in the sector (typically two-thirds of core funding) but for which actual expenditures are not properly recorded, if at all. Despite improved central public finance management systems and an increasing requirement that donor contributions are included within the budget, we suspect that a significant share of donor spending remains off-budget.

Functional breakdown of expenditure

Research and extension services. Detailed data on the breakdown of expenditures by function is limited. While concerns have been expressed concerning the low level of funds allocated to agricultural research and extension in Ghana and Zambia, in most other case study countries, research and extension services account for the major share of spending by the core sector agencies. In Uganda, for which relatively good data are available, the share of spending allocated to research is projected to decline from 20 percent of the sector budget in 2003-05 to around 13 percent over 2007-09. Meanwhile the allocation to extension services (mainly through the National Agricultural Advisory Service (NAADS) has increased from 15 percent in 2003 to nearly 25 percent in 2005, and is projected to rise further to 37 percent in 2006. This reflects the priority attached to extension services in the PMA – although this is not yet supported by strong evidence that NAADS extension services are delivering positive impact (or are an improvement over the traditional extension service).

In Vietnam, analysis by IFPRI shows that while agricultural research spending almost tripled between 1996-2002, average spending per researcher and research intensity levels are lower than in neighbouring countries. The share of spending allocated to research (2.5 percent) is low relative to other countries in the region - compared for example to 10 percent in Thailand and 6 percent in China. Meanwhile, much of the extension spending is accounted for by salaries with little allocated to operations. This reflects the approach in Vietnam that extension services should be provided through community organisations with little state funding.

Agricultural subsidies. Overall, relatively few resources appear to be allocated to agriculture subsidy programmes, although it is difficult accurately to assess this without further study. One exception is Zambia, where over the period 2003-04 85 percent of agricultural non-wage spending (including HIPC⁶ funds) was allocated to fertiliser subsidies and maize price support, with the remaining 15 percent shared between research, extension, and rural infrastructure. In 2003, Argentina allocated 30 percent of its already low public expenditure on agriculture to price supports and other incentives to the tobacco industry and a further 7 percent to other private goods. In the other four countries subsidy programmes, or elements thereof, undoubtedly exist but account for a smaller share of sector spending.

State-owned enterprises. In most developing countries the predominance in agriculture of state-owned enterprises (SOEs) has been significantly eroded over the last twenty years. This is true for all our case-study countries, with the notable exception of Vietnam. A recent expenditure review in Vietnam reported 319 SOEs (excluding irrigation management companies and State Forestry Enterprises) active in the sector. Of these, only 28 were assessed to be providing public goods. The remaining SOEs provide services in exchange for user-fees; of these 171 were considered profitable, 43 just managed to cover their costs, and 105 were unprofitable. Unprofitable SOEs are supported by loans from state-owned commercial banks and allocations from the state budget.

Over the four years to 2003, the debts of the agriculture SOEs in Vietnam doubled to a level equivalent to twice the agriculture budget. While some of these enterprises provide critical services, many are engaged in activities, such as agricultural marketing and processing, that otherwise could be provided by the private sector. The expenditure review suggests that a 2.5 percent reduction in the debts of SOEs would free sufficient savings to double spending on research and extension.

Recurrent and development spending

The balance between recorded recurrent and development spending varies considerably between case studies. For example, in Zambia there has been virtually no capital expenditure from government funds in recent years, the only development expenditure coming through donor-financed projects. In Kenya up to 80 percent of spending by the three agricultural ministries is accounted for by recurrent expenditure. By contrast, in Uganda the situation is reversed with 85 percent of the core sector budget accounted for by development spending. It should be noted however, that the distinction between recurrent and development budgets is not always clear-cut and much 'development' spending includes hidden recurrent funds.

Within the recurrent budget wages tend to dominate. This is particularly true for Ghana where 70 percent of MoFA recurrent spending is accounted for by wages. This leaves little for operations and maintenance and generally undermines the overall quality of investments in the sector. In Uganda this problem appears to have been addressed, with wages as a share of recurrent spending declining from 42 percent in 2003 to 27 percent in 2005, and projected to fall further to 17 percent by 2008. However, this decline may be masked by salaries and emoluments increasingly hidden within the development budget. In Zambia, the recurrent spending is dominated by the fertiliser support programme and food reserve operations with wages accounting for less than one-quarter of recurrent budget disbursements in 2004 and 2005.

⁶ Highly Indebted Poor Countries Initiative

The case studies confirm that donors continue to provide the majority of agriculture development spending⁷. This can be problematic given the erratic nature of donor funding commitments and low levels of actual disbursements. In Ghana, donors provide nearly all the development budget, including in agriculture. Here, analysis of donor loans and grants shows that agriculture is receiving a declining share of total donor funds available, with increased donor funding going to rural feeder roads and broad-based rural development programmes. By contrast, in Uganda domestic commitments to agriculture are increasing and are now close to parity with levels of donor funding – although it is possible that some of this domestic funding includes donor funds provided through sector programme support.

Many of the problems associated with donor-financed projects are listed in the Zambia case study. These include: lack of sustainability; poor monitoring and evaluation; overlapping interests; diversion of public officials' time away from core government activities, and; lack of effective coordination with other projects or the national development agenda (Govereh et al, 2007). A common problem related to the high share of donor funding in the sector is the failure to provide sufficient recurrent funds to ensure that development spending is adequately serviced in terms of operations and maintenance. There is evidence of this in the country case-studies (although to some extent this problem is mitigated by the inclusion of funds within project budgets to meet certain recurrent costs). For example, in Vietnam capital expenditure accounts for 75 percent of spending, leaving just 25 percent of the budget for salaries, and operations and maintenance. This imbalance between the capital and recurrent budgets arises from a combination of: a dual budget system (separate ministries handle the recurrent and capital sides of the budget); political processes which favour capital investments, and; an expectation that much of recurrent funding needs will be met locally through in-kind contributions and user fees. Under-funding of the recurrent budget has become an increasing problem over recent years and has resulted in capital investments being made without due regard to the recurrent costs required properly to service these investments. This problem is illustrated by the irrigation sub-sector, which accounts for a significant share of sector spending but suffers low utilisation rates (around 60 percent) largely due to insufficient funds being allocated to operations and maintenance.

Returns to investment

In none of the six case-studies is there any formal assessment of returns to sector investments. This is attributed to limited capacity for monitoring and evaluation combined with weak demand within the budget process to link resource allocation decisions to evidence of impact (i.e. weak demand for evidence-based policy analysis).

As noted earlier, in some of the six countries a high proportion of the agricultural sector budget is allocated to research and extension. These functions generally are considered to yield a high return to investment⁸. However, in most cases the anecdotal evidence in the case studies suggests that returns have been disappointing. The principal factors for this, other than low levels of funding *per se*, include:

- Poor linkages between the research and extension services, and incomplete restructuring of both services to meet their new roles and responsibilities;

⁷ To some extent this is a tautology, because in many countries the term 'development expenditure' is synonymous with 'donor-financed expenditure'. However, it is true that donor-financed expenditure currently is a major source of recurrent operating funds for personnel.

⁸ A comprehensive review of the large body of evidence is provided in Alston et al. (2000)

- Weak accountability systems and difficulties in linking specific investments to outputs and outcomes;
- The failure adequately to address the needs of poor farmers, women, or vulnerable groups.

However, there is some evidence of positive returns to investment. For example in Uganda, analysis by IFPRI suggests that spending on agricultural research and extension has improved agricultural productivity substantially (for each marginal shilling invested, 12 shillings is returned) and has the largest impact on poverty reduction, followed by feeder roads (7 shillings) and education (3 shillings) (IFPRI, 2004). More study of this issue is required at an individual country level.

Major findings

The case-studies suggest that the contraction of funding to agriculture over the past two decades is derived from a combination of factors. These include:

- An ideological shift away from state intervention in the economy - structural adjustment, the liberalisation of agricultural parastatals, the adoption of market-led approaches and the reduction in subsidies has reduced the 'space' for public sector expenditures on agriculture;
- An increasing focus by the state (and donors) upon spending to the social sectors (primarily health and education), largely driven through PRS and MDG processes;
- Changes in aid modalities involving a trend towards budget support (the budget process does not favour agriculture – see below), and an increasing perception that the problems in agriculture can be addressed through other sectors (transport, infrastructure etc);
- Where donors continue to engage in agriculture, donor funds typically account for a major share of the sector budget, but disbursement rates can be below expectations and unpredictable; and
- Strengthened central public finance management systems, but a high level of political interference in how agriculture budgets are determined with weak agriculture sector institutions that struggle to make effective claims upon limited resources (discussed in the following section).

3. Agriculture and the budget process

3.1 Introduction

Despite numerous studies showing positive growth and poverty reduction effects from public spending in agriculture, the picture painted in Section 2 is a generally dismal one regarding the level and trends of public expenditure on agriculture in the case study countries and in developing countries in general. Several inter-related factors are responsible for this situation and some of the main factors are discussed in this Section⁹.

Policy reforms. The decline in agriculture's share of expenditure has occurred during an era of attempted policy reforms in all of the case study countries where there has been considerable emphasis, mainly donor-driven, on improved fiscal discipline, liberalising the economy and redefining the role of the state. More latterly, the emphasis has been on poverty reduction as a key policy objective. The historical sequencing and outcome of these attempted reforms in terms of spending to agriculture is discussed in Section 3.2.

National politics. In recent years it has been increasingly recognised that donor initiatives have not fully appreciated the importance of the nature of the state and national politics when attempting policy reforms and this is a major, but by no means the sole, reason for the less than satisfactory outcome (Cammack, 2006, Booth, 2005, Smith et al., 2004). Although this recognition of the importance of the nature of the state has been mainly developed in relation to African countries, much of the analysis appears equally applicable to Vietnam and Argentina. These issues are examined in Section 3.3.

Public expenditure management reforms. In addition to the policy reforms to be discussed in Section 3.2, the donor community has attached considerable importance to governance reforms. In the context of this study, attempted reforms to the budget process and their implications for agricultural sector expenditure are discussed in Section 3.4.

3.2 Policy reforms and their impact on agricultural expenditure

Policy reforms, stimulated and/or supported by donor initiatives, that have had direct or indirect implications for public expenditure on agriculture have been ongoing for many years.

In countries where agriculture played a major role, the main concerns have been: the terms of trade between the agricultural and non-agricultural sectors; the supply response, and; efficiency (Johnson, 1989). 'Expenditure-switching' dealt mainly with the first two concerns through exchange rate devaluations and liberalisation of price controls intended to stimulate the production of tradables (especially export commodities) at the expense of non-tradables. Meanwhile 'expenditure-reducing' policies, required to help to reduce substantial budget deficits, were linked with 'efficiency' measures in the form of attempts to reduce input and food subsidies, divestiture of government involvement in marketing and productive activities, reorganisation of publicly-provided services and retrenchment of staff in government agencies and parastatals, etc. Faced with the need to control public expenditure,

⁹ There are, of course, many factors affecting public expenditure to agriculture but the three factors selected here appear to the authors to be the key to understanding the situation and to improving it.

governments found it easier to reduce capital and operational expenditures rather than wages and salaries, leading to inefficiencies in service delivery.

Structural Adjustment Loans (SALs) were used to promote reforms in the agricultural sector in many countries (e.g. Ghana, Kenya, Uganda). These were mainly aimed at reducing the role of the public sector in agricultural marketing, removing agricultural input and food subsidies, and downsizing agricultural sector agencies. As a result, the overall effect in most countries of IMF and World Bank initiatives during the 1980s and most of the 1990s was that government expenditure on agriculture as a share of GDP and as a percentage of total government expenditure fell (Table 4). In some countries, real government expenditure to agriculture also fell in absolute terms. Indeed, of the 5 case study countries in Table 4, only Uganda, which was experiencing serious civil unrest two decades ago, had higher real agricultural expenditure in 2002 than in 1980. In several countries, failure to adhere to IMF and World Bank conditionalities agreed as part of the loan packages triggered temporary (and sometimes permanent) postponements of tranche releases and changes in commitments from other donors that further destabilised the level of expenditure in the agricultural sector.

In 1996 the IDA and IMF introduced the Heavily Indebted Poor Countries (HIPC) Initiative as a debt relief instrument which was enhanced in 1999 and linked to progress in implementing a country's Poverty Reduction Strategy (PRS). In 1999, the IMF introduced the Poverty Reduction and Growth Facility (PRGF) as a low-interest lending facility framed around comprehensive, country-owned Poverty Reduction Strategy Papers (PRSPs). All of the case-study countries, except Argentina, are eligible for PRGF funds and Ghana, Uganda and Zambia are eligible for debt relief under the joint HIPC Initiative. These latter three countries become eligible for the Multilateral Debt Relief Initiative (MDRI) on reaching the HIPC completion point at which debt relief becomes irrevocable.

As these various initiatives are all linked to implementing poverty-reducing strategies, and as poverty is seen predominantly as a rural phenomenon in most countries, it might be anticipated that expenditure on the agricultural sector would have increased. However, an independent evaluation (World Bank, 2004a) found that 'Within the domain of public expenditures, allocations to expanding service delivery in the social sectors (education, health, and social protection) dominate over investments in economic or productive sectors such as infrastructure, agriculture, and rural development' (p.15), while in 14 PRSP countries with sectoral expenditure data 'In the four-year period prior to the completion of the PRSP, expenditures on education and health had already been increasing as a percentage of GDP, while the agriculture and transport sector shares stayed constant' (p.30).

Although it would appear that the intention is to increase expenditure on agriculture and rural development in the second-round PRSPs, (see the Kenya, Uganda and Zambia case studies), much of the additional funding would appear to be coming, directly or indirectly, from donor funding. A certain degree of scepticism is appropriate regarding the attitudes of governments themselves to using domestically-generated funds for sustained actual government expenditure to agriculture. This issue is examined in the next Section.

3.3 Government political economy and attitudes to agricultural expenditure

The neo-patrimonial state

A useful starting point in understanding political economy issues in relation to budget processes is Van de Walle's (2001) characterisation of the African state as typically 'neo-patrimonial' where, despite the trappings of a modern bureaucracy and clear distinction between public and private roles, power is focused around one individual (the president) or a small elite. This concentration of power is frequently associated with a tradition of clientelism (i.e. the giving and granting of favours or patronage). This, in turn, encourages state intervention in the economy, essentially through 'privatising' public resources, a lack of transparency in the budget process to obscure this 'privatisation' and attempts to generate or retain economic rents as a source of patronage.

Van de Walle further argues that African states are generally 'autonomous', in the sense that the State can pursue its own institutional interests. The absence of a strong civil society movement enhances this state autonomy¹⁰. Thus the elite have considerable autonomy in pursuing policies and actions that they believe will maintain their own interests. As is the case in Africa, many of these states are characterised as 'weak, in terms of their capacity and ability to implement coherent and long-term economic strategies. This is often linked to incentives to avoid improving policy and budget analysis capacity and other reforms that might reduce scope for patronage. This implies that the 'weak state' problem is unlikely to be overcome by a technocratic approach based on 'capacity building' alone. This understanding is critical in relation to issues such as public financial management and budget reforms.

The move to multi-party politics may not change this situation markedly. For example, Rakner et al (2003) argue that the effect of intensified electoral competition in Malawi has been to limit the potential for political 'violence' (since no one is permanently excluded from power and there is scope for accommodation of excluded interests through coalition) while at the same time reinforcing the patronage system with negative governance consequences. They argue that "competitiveness of the elections may prevent institutionalisation of democracy" since political leaders have prevented Parliament becoming a truly independent arm of government.

In understanding the nature of the policy process, it is also useful to draw a distinction between situations where the state elite is able to pursue a consistent strategic approach to policy (for example to use patronage to consolidate the position of particular ethnic groups) and situations where the state is not strong enough to exert effective control over its agents so that there are substantial opportunities for the diversion of public resources towards personal rather than strategic goals. In the latter case, technocratic reforms aimed at reducing the opportunities for corruption within the public sector may have some effect, while in the former case the

¹⁰ This emphasis on the autonomy of the state elite contrasts with other authors (e.g. Bates, 1981) who view the policy process as being determined essentially by the competing demands of various interest groups. Bates in particular attributed key features of agricultural policy in Africa to the influence of organised urban interest groups who sought to ensure supplies of cheap food, subsidised imports and revenues from the taxation of agricultural exports. Van de Walle argues that interest group based analysis is flawed in its application to Africa since societal interest groups are poorly organised and face formidable barriers to effective organisation, including diversified livelihood strategies (limiting the extent of common economic interests) and low population densities. He argues that empirically there is little evidence that effective interest group organisation exercises a strong influence on policy choices – though he makes an exception in relation to the modern economic sectors of the "settler economies" of Eastern and Southern Africa, including Kenya.

underlying issues relate to the objectives of the regime rather than weaknesses in its implementation capacity.

Implications of a patrimonial state for agricultural expenditure.

There are perhaps five major, but inter-related, ways in which the patrimonial state influences the nature of the agricultural policy process and allocations to agricultural expenditure: presidential power; the links between ethnicity and agricultural production systems; the quest for rent extraction and patronage to favoured groups or individuals; an anti-poor bias, and; the neglect of evidence-based policy formulation and aversion to reforms (Smith et al., 2004). Each of these is discussed briefly below.

Presidential power. The concentration of authority in the presidency means that the adoption and implementation of any major economic policy initiative or reform requires the approval of the president and the key advisers and associates who control access to the president.

Ethnicity and agricultural production systems. In many countries there are several agro-ecological zones suited to different crop or livestock production systems. At the same time, the various ethnic groups are also geographically spread, so that different ethnic groups tend to be associated with particular crop or livestock production systems¹¹. Biasing public expenditure in research, extension, infrastructure or the provision of private goods such as subsidised fertiliser towards particular crops or livestock products (or away from others) may thus be influenced as much by patronage considerations as national economic growth or poverty reduction considerations.

Rent extraction and patronage. Rent extraction is one of the ways of financing patronage. Most economic rents in the agricultural sector are derived from artificial shortages generated by licensing or restrictions imposed on the production and marketing of agricultural commodities, inputs, and services. An effective way of dispensing patronage is by granting licences, or the power of granting licences and hence the rents, to favoured individuals or groups. This explains the perpetuation of heavy regulatory frameworks and government involvement in agricultural legislation in many countries. Another process by which the executive branch extracts rents and patronage is through infiltration of commodity cooperatives, boards and authorities (e.g. coffee co-ops, sugar boards, etc) by political allies of the President. Funds can be illegally extracted from the management and listed in the accounts as 'costs', thereby inflating marketing costs that are ultimately deducted from farmer revenues. Some analysis has suggested that these types of activity reflect deliberate attempts by the executive branch to suppress particular ethnic groups to prevent potential economic power from translating into political rivalry to the ruling regime from other ethnic groups. The threat of withdrawing privileged access to rents or other favours is also an important component of patrimonial power.

It is conceivable that one reason for the recent apparent neglect of agriculture, reflected in the lack of priority it receives in public expenditure, is the reduced opportunities for rent extraction now that so much of the marketing system for

¹¹ Kenya provided a good example of this when the Moi regime replaced Kenyatta. "Strong regional forces impel Moi towards policies of economic redistribution. Political power has shifted from the Central Province to the West. To secure its regional base, Moi's government must seize economic resources from the centers of export crop production and distribute them to those less favoured. Moi thus garbs his regime in populism, accommodating regional demands for acts of redistribution while striving to defend class privileges" (Bates, 1989)

outputs and inputs has been liberalised as part of the donor-driven reform process that most countries have undertaken over the past two decades.

Anti-poor bias. A key feature of patronage politics is that the poor are at the bottom end of patron-client networks. Indeed, there may be a tendency for the rents to be extracted regressively from the poorer members of society through lower farm-gate prices for outputs, higher prices for purchased food and inputs, or indirectly through lower wages or rent for land. In most countries there has been little incentive for leaders to listen to the voice of the poor except when they felt threatened or needed to gain electoral support, when they occasionally resorted to pro-poor, populist policies. However, most of these were no more than mere rhetoric. Indeed, it is likely that few governments would have adopted pro-poor policies had they not been the key to unlocking access to substantial donor funding, which to date, in accordance with donors' wishes, has been allocated mainly to expenditure on health and education.

Aversion to financial reforms and evidence-based policy analysis. In patrimonial states there is limited desire for budget transparency or for mechanisms that restrict the ability of the elite to distribute public funds to the benefit of their clients. Financial management reforms are likely to be undertaken only as a means of obtaining or retaining access to donor funds. As discussed above, in patrimonial, ethnic-based political systems, the political elite can achieve their political objectives by favouring the commodities produced by their own ethnic groups (and perhaps penalising commodities grown by other ethnic groups), imposing restrictions on production and marketing and allocating licences, particularly trade licences, to favoured members of that group. There is little role for evidence-based policy-making, indeed if policy analysis demonstrates the economic distortions created by rent-creating policies, there may be active attempts to suppress it. Similarly, there is little role for open debate of policy options or budget allocations, which are likely to be seen as presenting a threat to elite interests and control over policy processes. An exception might be in a case where the elite sees a major change of economic direction as necessary because its interests and hold on power are being adversely affected by poor economic performance. For similar reasons, patrimonial considerations favour a non-transparent budget process with limited opportunities for stakeholder consultations or access to the allocation or disbursement processes. Killick (2005) observes that the types of weaknesses found in Ghana's budget process are entirely consistent with those anticipated by a neo-patrimonial model of politics.

Summary. Birner & Palaniswamy (2006) have recently listed the political challenges that make it difficult to increase public spending on agriculture. These include:

- 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;
- An image of agriculture as a "backward sector";
- 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.

Govereih et al (2007) confirm that these issues are relevant to Zambia. Most of these challenges are closely associated with the outcomes that one would expect with a neo-patrimonial state.

While there are indications that a portion of HIPC / MDRI funds will be used to boost public sector expenditures on agriculture, it remains to be seen whether this is a permanent change in attitudes or whether it is a predictable move by neo-patrimonial governments to secure increased donor funding? A question that merits further examination is how these patrimonial forces can be influenced or overcome to support pro-poor policies and investments in a sustainable manner.

3.4 Public expenditure management reforms

Chronic budget deficits and a perceived lack of control over government expenditures are continuing problems in many developing countries. To overcome these problems, donors have put considerable emphasis on governance reforms including public expenditure management reforms and improvements to the budgetary process, both in terms of budget formulation and execution. This is true of all the case-study countries. As Cammack (2006) indicates, these reforms may include parallel attempts to:

- Introduce and operationalise forward budgeting in the form of the Medium Term Expenditure Framework (MTEF);
- Modify and strengthen classification systems;
- Increase budget comprehensiveness;
- Eliminate dual budgeting;
- Improve accounting systems, and;
- Introduce performance or output-based budgeting.

Cash budgeting (rationing) has also been used as a short-term expedient to impose fiscal discipline. Meanwhile, the PRS process is intended to focus expenditure allocations on priority poverty reducing (and, more latterly, growth-enhancing) objectives.

The Zambian case study is typical of the financial reform process now underway in many countries. It is only in very recent years that steps have been taken to improve the budgetary process and link it more closely to policy initiatives, such as the PRSP that was launched in 2002. A major incentive to engage in this process was provided by the substantial funds available under successive PRGFs and the Enhanced HIPC Initiative. A major reform programme, the Public Expenditure Management and Financial Accounting (PEMFA) Reform was commenced in 2003 together with the development of an Integrated Financial Management and Information System (IFMIS) to comply with international accounting systems and a Commitment Control System (CCS). This whole process is closely monitored by the IMF as conditionality for tranche releases under the PRGF.

Zambia's first MTEF for 2004-06 was developed after the PRSP and used the Activity Based Budgeting (ABB) system to provide estimates for ministries and public sector agencies. The 2004 budget was formulated in the context of this MTEF, thus placing

the annual budgeting cycle in a more strategic context. All spending agencies used the ABB procedures to explicitly link their budget allocations to service delivery and outputs. This made the budgetary process more transparent and provides more information to improve accountability. This fiscal and budgetary reform process is still ongoing in Zambia and in all other case-study countries with greater or lesser success.

As indicated earlier, this reform process is especially difficult in neo-patrimonial states. This is because patrimonial forces continually seek to expropriate public resources for private purposes (Cammack, 2006). From a political viewpoint, successful implementation of financial management reforms is usually associated with 'champions of change' in influential positions in government and with a strong desire by the elite to obtain increased access to donor funds and debt relief.

From a technical viewpoint, taken individually many of these reforms are very demanding and require analytical capacities (e.g. to review expenditure outcomes and prioritise between competing sectoral needs) that are beyond the scope of most ministries of agriculture, or indeed any line ministry. In particular, computerisation of accounting systems has been a slow process with mixed results. Although, in principle, coordination of various agencies involved in agriculture through sector-wide approaches (SWAPs) may be desirable, in practice this can put additional institutional and other strains on overloaded systems, particularly in the short run (Smith et al., 2004).

Taken collectively, the reform packages have put a heavy demand on the agencies and agents required to implement them. Moreover, a failure adequately to sequence reforms means that there are sometimes conflicts between the objectives of individual reforms. For example, the use of cash budgeting, designed to control fiscal deficits by limiting expenditure authorisations at any one time to the revenues currently available, runs completely counter to the desirability for forward planning and the timely release of funds. It has particularly adverse effects on the agricultural sector where many activities are seasonally time-bound and where the failure to release funds at a particular point in the agricultural calendar may jeopardise a whole year's activities.

The overall result is that weaknesses in budgetary formulation still persist in many countries (Cammack, 2006). These include: multi-year planning without links to the annual budget; unrealistic annual budget projections; frequent supplementary budgets, and; non-transparent budgets. Weaknesses in budget execution include: poor recording and monitoring of expenditure and commitments; arrears accumulations; proliferation of bank accounts; unreliable fiscal reports and annual accounts, and weak internal audit. Many of these weaknesses also occur in the case study countries in this report. However, with public financial management reforms still ongoing and the absence of detailed investigations in each country, it is difficult to give an up-to-date assessment of the budget reform process and the actual weaknesses that still persist. More importantly, it is difficult to assess the degree of 'local ownership' of these reforms and whether they will be maintained once the flow of donor funds that induced them has stopped.

Even in Uganda, which would appear to be the furthest advanced of the case study countries in terms of public financial management reforms, the latest World Bank (2004b) CFAA recommends the following improvements to the budget process:

- Streamline the requirements in the budget process and improve contents of budget performance reports;

- Record and monitor all foreign development assistance in the budget;
- Approve and implement the proposed new organisational structure of the Accountant General's Office ;
- Improve the integrity of the payroll system;
- Secure funding for the roll out of the Integrated Financial Management System (IFMS);
- Enact appropriate legislation to ensure the independence of the Auditor General ;
- Implement changes to the Internal Audit function as required by the Public Finance and Accountability Act;
- Strengthen various elements of the oversight as well as legislative and public scrutiny functions;
- Strengthen monitoring of accountability of Public Enterprises and Non-Governmental Organisations (NGOs); and
- Enact the draft Accountants Bill which aims to strengthen regulation of the accountancy profession.

Implications for agricultural sector expenditure

The scope of this study has precluded detailed examination of the processes by which agricultural budgets are agreed, funds allocated and monitored. The general pattern appears to be that the MTEF process provides an opportunity for line ministries, either grouped in sectors or individually, to make policy proposals and bids for resources for the next three years within indicative budget ceilings set by the Ministry of Finance. The actual budget process then involves submissions from individual line ministries against 'hard' ceilings. These submissions are prepared by sector budget groups, sometime including representation from non-agriculture line ministries (as is the case in Uganda). There is typically a limited negotiation procedure between the line ministry and a budget committee or the Ministry of Finance. However, adjustments to agreed proposals are often made after this by the Finance Ministry or the Cabinet.

Typically, there are limited opportunities for parliamentarians to discuss the budget proposals in any detail, although donor support for capacity building activities is beginning to change this in some countries, for example Kenya (Smith et al. 2004) Even after parliamentary approval of the Budget there may be alterations to budget allocations through the use of supplementary budgets or various ring-fencing devices that affect the allocation to agriculture or within the agricultural sector (e.g. drought relief programmes that take precedent over other expenditure items). Moreover, as seen clearly in the Ghana and Zambia case studies, disbursements often differ from allocations in part due to the use of cash rationing devices, ring fencing of certain activities and over-optimistic assessments of donor aid disbursements.

Similarly, it has been difficult to assess the extent to which agricultural sector stakeholders are actively engaged in the budget process. However, the general impression is that the development of PRS papers in most countries has included a wide participatory process. In some countries (e.g. Kenya and Uganda), the MTEF process also involves stakeholder participation through sector working groups. However, there appears to be little or no stakeholder participation in the development of the actual budget proposals and only limited mechanisms for any scrutiny of the proposals, even by parliamentarians, before their approval.

There are examples (e.g. Kenya, Uganda, Zambia) of attempts to promote aid harmonisation in general and also aid alignment in agriculture. However, while some donors are willing (and able) to pool funds through a basket-fund arrangement and to rely on government procedures for resource allocation and accounting, other donors still prefer to fund projects outside the budget and require their own disbursement and accounting procedures to be used.

The case studies suggest that improved central public finance management systems combined with Poverty Reduction Strategies have not yet resulted in a prioritisation of agriculture within national development strategies and budgets. Indeed, Poverty Reduction Strategies have encouraged patterns of spending that favour the social sectors over the productive sectors; although to some extent this imbalance is being addressed in second and third generation PRSs that place a greater emphasis upon growth.

Within this environment ministries of agriculture have struggled to make a convincing claim for public funds. For example, a recent study in Uganda found the agriculture sector budget preparation process managed by the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) to be weak with limited justification put forward for the sector budget submission (OPM, 2002). The study noted *inter alia* that:

- Proposals for project spending tended to overstate salaries and allowances;
- Operational approaches appear to be incompatible with policy (proposing subsidised or free input distribution contrary to PMA principles);
- A lack of reference to outputs and output targets;
- A tendency to roll-over projects each year without due consideration of their relevance and impact.

4. Summary and recommendations for further study in Module Two

This study has reviewed the global evidence on trends in public spending to agriculture. The study has also examined available documentation on the patterns of agriculture expenditure in six case-study countries. The study methodology has been based upon secondary data. This has necessarily restricted the scope and depth of the analysis undertaken, especially given the limited availability of detailed data on public expenditures to agriculture.

This section summarises the principal themes and issues arising from the study. Recommendations are also made to inform the in-country work to be undertaken under Module Two of the broader research programme, where more detailed analysis will be possible.

Main findings of the study

- For many developing countries, and especially countries in sub-Saharan Africa, agriculture is a critical sector for economic growth and poverty reduction. This is confirmed by evidence of strong positive returns to growth and poverty reduction from government spending in agriculture;
- However, relative spending to agriculture has declined markedly over the last twenty years. The situation is especially severe in sub-Saharan Africa, where there has been rapid withdrawal of state support to the sector. For example,

in Ghana agriculture's share of government spending has declined from over 12 percent in 1980 to 1 percent in 2002 and in Zambia it has fallen from 23 percent to 6 percent over the same period;

- The reduction in expenditures to agriculture has been driven by a combination of factors. These include structural adjustment and an ideological shift away from state intervention in agriculture, and an increasing (and donor-driven) focus upon PRS and MDG processes which prioritise spending to the social sectors;
- There is evidence that donors and governments are now trying to re-engage with agriculture and redress the spending imbalance through greater attention to agriculture and the productive sectors in second and third generation PRS processes.
- Spending on agricultural research and development is a critical area for growth in agriculture. However, recent analysis shows that there has been no measurable growth in agricultural research spending intensity in the developing world since 1981 (Pardey et al, 2006). There is evidence of serious neglect of R&D in some case-study countries;
- The quality of spending to agriculture is more important than the overall level of spending. This is an issue ignored by prescriptive approaches to spending - for example the Maputo declaration encouraging African countries to allocate 10 percent of their budgets to agriculture;
- Access to detailed agriculture sector expenditure data is problematic. Problems relate to how agriculture is defined (what is included and what is not) and the diversity of spending agencies involved in the sector. This is most evident in Uganda where a narrow interpretation of the agriculture sector, as defined by spending through the three core agencies, shows that agriculture receives around 4 percent of total public spending. However a wider interpretation of agriculture, as defined by the Uganda Plan for Modernisation of Agriculture, which involves expenditure through a dozen agencies, indicates that the sector more broadly defined receives around 11 percent of total spending.
- A related problem is that expenditure data generally are not well recorded. This is especially true for donor funding, particularly for projects for which actual expenditures are not properly recorded, if at all. Similarly, detailed data on the breakdown of expenditures by function and the impact of expenditures generally is unavailable;
- Relatively few resources appear to be allocated to agriculture subsidy programmes. The exception is Zambia, where 85 percent of agricultural non-wage spending is allocated to fertiliser subsidies and maize price support;
- The balance between recurrent and development spending varies considerably between countries. However, the distinction between recurrent and development budgets is not always clear-cut, and much development spending also includes significant recurrent components;
- The heavy reliance on donor funding for agricultural development in many countries can lead to inefficiencies if development spending is inadequately serviced in terms of operations and maintenance funds. To some extent this problem is mitigated by the (hidden) inclusion of recurrent funds within the development budget; There are also problems related to: lack of sustainability; poor monitoring and evaluation; overlapping interests; diversion

- of public officials' time away from core government activities, and; lack of effective coordination with other projects or the national development agenda
- Decentralisation poses particular challenges to effective expenditure management in agriculture, especially in relation to determining who has responsibility for budget outputs and outcomes, and the design, management, and accountability of agricultural services (e.g. Vietnam);
 - While stakeholder consultation is evident in some agriculture planning processes, consultation is focussed around PRS and MTEF submissions, rather than in the development of actual budget proposals or in relation to the scrutiny of expenditure impact;
 - Ministries of agriculture fail properly to scrutinise and prioritise competing activities against sector objectives, and to report on the impact of expenditures. This brings into question the wisdom of substantial increases in public funding to agriculture in the absence of improvements in management and efficiency;
 - Where public financial management reforms are being pursued, they have tended to place heavy demands upon analytical capacities, and have not been supported by complementary support to capacity building in ministries of agriculture;
 - Initiatives to reform PEM in agriculture, or the wider agriculture policy and institutional framework, have tended to overlook political economy issues. This is especially relevant for neo-patrimonial states (much of SSA) where the elite continually seek to divert public resources for private purposes.

Recommendations for further study in Module two

It is understood that during Module Two agriculture public expenditure reviews (PER) will be undertaken in selected countries. The current desk study has been hampered by a lack of detailed information related to budgeted and actual expenditure, sources of funds and their management, the prioritisation of expenditure and the efficiency of service delivery. There is also little detailed information on the budget process within the agricultural sector and how ministries of agriculture and stakeholders engage in this process. To overcome these deficiencies, it is recommended that the ToRs for these PERs address the need for analysis in the following areas.

- Detail on the breakdown of budgeted and actual expenditures by economic classification (recurrent / development) and by functional classification (services, programmes etc). This should include detailed analysis of the actual composition of recurrent and development expenditures, for example the extent to which recurrent costs are 'hidden' in the development budget. Is there an appropriate balance between wage and non-wage recurrent costs (i.e. extension staff, but no resources for them to travel)?
- Sources of funds – breakdown between government (central and local) and donor funds. How sector revenues are managed and audited (e.g. revolving funds) To what extent do donor programmes run in parallel to government systems and place demands upon local capacity (e.g. to manage projects, report on project performance). Assessment of impact of external donors - what is working well and what problems have been created?
- Strategic prioritisation (allocative efficiency) - does the composition of public expenditure reflect the broad policy thrust articulated in relevant sector policy documents? This analysis should include assessment of the rationale for

public intervention (market failure / social objectives) and, where intervention is justified, the best instrument for intervention (direct funding, taxes, subsidies, contracting out etc).

- Can anything be said about the efficiency of service delivery? Inferences may be made by analysing the split between the various inputs required to produce outputs - for example, the split between salaries, operations and maintenance, transfers and capital expenditure, and even between headquarters and regional / district spending. The analysis should make reference to relevant international comparators (where available);
- Data on expenditure impact is unlikely to be available. Assuming no data exists, the analysis should extend to review of available beneficiary surveys or similar qualitative studies. It may be worth considering the commissioning of Public Expenditure Tracking Studies (PETS) or beneficiary surveys in selected countries (funds permitting);
- Agriculture budget formulation and execution. Three main questions: (i) how is the agriculture sector budget formulated and approved?; how is the budget implemented?; and (iii) what are the review and evaluation processes (internal and external audit and oversight)? In addition, the analysis should examine the institutional framework by which the budget envelope for agriculture is defined, and what rules exist for respecting it;
- Detailed analysis of how the ministry of agriculture engages in the budget process. This should include the preparation of a timeline of the budget process, with details of how and when the ministry has opportunity to influence the agriculture allocation. To what extent is the process consultative (including at local government levels, and with wider stakeholders)? What impact do aid harmonisation and PRS processes have in respect of the budget or agriculture? Is there any attempt to link agriculture spending to poverty?

References

- Akroyd, S. (2004) Effective policy and public expenditure reform for pro-poor agricultural development, DFID Working Paper, Oxford Policy Management
- Alston, J.M., Chang-Kang, C., Marra, M.C., Pardey, P.G., and Wyatt, T.J. (2000) 'A meta-analysis of the rates of return to agricultural R&D: Ex pede Heculem'. IFPRI Research Report No.113. Washington D.C.: International Food Research Institute.
- Bates, R. H. (1981) *Markets and States in Tropical Africa: The Political Basis of Agricultural Policies*. Berkeley: University of California Press.
- Birner, R. and Palinaswamy, N. (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'. Somerset West, South Africa, May 2006.
- Booth, D. (2005) 'The Africa Commission Report: What about the Politics?' *Development Policy Review* 4:23 pp 493-498
- Bratton, M. and van de Walle, N. (1997) *Democratic Experiments in Africa: Regime Transitions in Comparative Perspective*. Cambridge: Cambridge University Press.
- Cammack, T (2006) *The Politics of Public Expenditure: challenging patrimonial influence in Malawian budget execution 1994 – 2006*. M.Sc Dissertation, University of Birmingham, November 2006.
- Elias, V. (1985). *Government expenditures on agriculture and agricultural growth in Latin America*. Research Report 50. IFPRI.
- Fan, S., Hazell, P. and Thorat, S. (2000). *Government spending, agricultural growth and poverty in rural India*. *American Journal of Agricultural Economics* 82(4).
- Fan, S., Zhang, L. and Zhang., X (2000). *Growth and poverty in rural China: The role of public investment*. Environment and Production Technology Division Discussion Paper 66. IFPRI.
- Fan, S., and Rao, N, (2003). *Public Spending in Developing Countries: Trends, Determination and Impact*. EPTD Discussion Paper No. 99. IFPRI.
- Fan, S. and Saurkar, A. (2006) *Public Spending in Developing Countries: Trends, Determination and Impact* (mimeo).
- Govere, J., Shawa, J.J., Malawo, E. and Jayne, T.S. (2007) *Raising the Productivity of Public Investments in Zambia's Agricultural Sector*. Food Security Research Project Working Paper Publication #20, Lusaka, Zambia (draft).
- Johnson, O.E.G. (1989) 'The Agricultural Sector in IMF Stand-by Arrangements' Ch. 2 in Commander, S. (ed.) (1989) *Structural Adjustment and Agriculture: theory and practice in Africa and Latin America* Overseas Development Institute, London
- Killick, T (2005) *The politics of Ghana's budgetary system*. CDD/ODI Policy Brief no. 2, November 2005.
- Smith, L.D., Jones, S., and Karuga, S. (2004) *Agriculture in Kenya: What Shapes the Policy Environment?* Oxford Policy Management 24 September 2004.

Pardey, P. G., N. M. Beintema, S. Dehmer, and S. Wood. 2006. *Agricultural Research: A growing global divide?* University of Minnesota and IFPRI, St. Paul and Washington, D.C.

Rakner, L., Mukubvu, L., Ngwira, N. and Smiddy, K. (2004) *The Budget as Theatre – the Formal and Informal Institutional Makings of the Budget Process in Malawi*. Draft Final Report by DFID, Lilongwe.

Van der Walle, N. (2001) *African Economies and the Politics of Permanent Crisis 1979 – 1999* Cambridge: Cambridge University Press.

World Bank (2004a) *The PRS Initiative: an independent evaluation of the World Bank's support through 2003*. World Bank Operations Evaluation Department.

World Bank (2004b) *The Republic of Uganda: Country Financial Accountability Assessment*. Report No. 29116-UG, May 2004.

Review of Public Spending to Agriculture

Annex – Country Case Studies

Ghana

Kenya

Uganda

Zambia

Vietnam

Argentina

Ghana Case Study

1. Agriculture expenditure trends and patterns.

Total agricultural expenditure

It is difficult to obtain a clear picture of total agricultural expenditure in Ghana from the available information. Budget documents have tended to be released only on a 'need to know' basis, and it is only in recent years that this has begun to change (Killick, 2005). Another problem stems from the fact that there are several ministries and agencies providing services to agriculture. For example, the Ministry of Food and Agriculture (MoFA) provides many services for general crop agriculture and livestock, but agricultural research is mainly done by a variety of research institutes through the Council for Scientific and Industrial Research (CSIR) which, until recently, was under the Ministry of Environment and Science (MoES) but is now under the Ministry of Education, Science and Sport (MoESS). However, all services for cocoa farmers, including research and extension used to be provided through COCOBOD, the Ghana Cocoa Board mainly using funds set aside by the Government from the f.o.b. value of exported cocoa, although since 2001 the extension service has been amalgamated with the MoFA service. An additional problem is that, until recently, there was incomplete recording of donor expenditure on programmes and projects, because only that portion going through the Ministry of Finance is recorded as central government expenditure.

The 1998 Agricultural Sector Expenditure Review (ASER). The last sector spending review was undertaken in 1998 with the objective of generating information to elaborate a strategy and associated budget estimates for the agricultural sector at the start of the MTEF process. It was commissioned as part of the Agricultural Services Sector Investment Programme which the Government used as an instrument to implement its Accelerated Agricultural Growth and Development Strategy (AAGDS).

Table 1 Actual agricultural expenditure, 1995-97

	1995	1996	1997
Agric. sector expenditure ¢ mn (real 1995 prices)	94,447	102,308	112,782
% of total GoG expenditure	3.5%	3.4%	4.8%
% of discretionary expenditure	4.5%	4.2%	6.9%
% GDP	1.3%	1.3%	1.3%
% sector expenditure financed by GoG	66%	63%	48.0%
Capital expenditure as % total	44%	47%	53%
% of capital expenditure funded by GoG	23%	21%	9%
% of total agricultural sector expenditure by:			
MoFA	48%	49%	57%
Cocoa sector	33%	29%	23%
CSIR	11%	15%	15%
MLF	9%	7%	5%

Source ASER 1998 Tables 3.1, 3.3, 3.5 and 3.6

ASER was able to collect expenditure data from MoFA, COCOBOD, the Cocoa Research Institute of Ghana (CRIG), CSIR and the Ministry of Lands and Forestry (MLF). Over this period, MoFA's share of sector expenditure was rising and accounted for just over one-half of the sector's expenditure (Table 1), while the cocoa

sector (COCOBOD and CRIG) share was falling and averaged just under one-quarter of the total. CSIR accounted for a further 14 percent of expenditure whilst MLF's share averaged 7 percent and was falling.

Over the period 1995-97 these five sector agencies saw their share of total government expenditure (including recorded donor funding) rise from 3.5 to 4.8 percent and their proportion of discretionary government expenditure rise from 4.5 to 6.9 percent. However, despite the importance of the sector, "*It appears [its contribution] is not taken into consideration by the Ministry of Finance when determining government expenditure ceilings*" (ASER, 1998) as government expenditure on the agricultural sector over this period only represented 1.3 percent of GDP (Table 1). The ASER report questions whether the government will be willing to sustain even this level of total agricultural expenditure given that real GoG-financed expenditure actually fell over the period and its proportion of total sector expenditure fell from two-thirds to under one-half in these three years.

The reliance of the sector agencies on donor funding varied considerably over this period (Table 2) with donor funding in the sector rising from one-third to almost one-half of total sector spending. MoFA, in particular, was heavily dependent on donor funding, which rose from almost two-thirds to around three-quarters of its expenditure between 1995 and 1997. CSIR's dependence on donor funding also rose from under one-quarter to over one-third of its funding. On the other hand, the cocoa sector would appear to have secured little of its funding from donors¹². This variability in donor funding is, in part, a reflection of the overall 'aid climate' at a particular time but also reflects the 'lumpiness' of donor funding.

Table 2 Share of agricultural expenditure funded by donors, 1995 – 97 (%)

	1995	1996	1997
MoFA	59.1%	61.5%	73.5%
Cocoa sector	0.0%	0.3%	0.1%
CSIR	23.7%	25.5%	34.0%
MLF	31.2%	46.2%	20.7%
Total	33.7%	37.1%	48.0%

Source: ASER (1998) Table 3.5

The ASER report also shows that although capital expenditure rose from 44 to 53 percent of total sector expenditure over the period, the proportion funded by GoG fell from 23 to 9 percent (Table 1). Indeed, averaged over the 3 years, 91 percent of government-financed expenditure was on recurrent costs; 99 percent in the case of the cocoa sector, 80 percent for MoFA and around 73 percent for CSIR and MLF.

In terms of the functional composition, extension and development (crop and livestock) accounted for over one-half of total agricultural expenditure (Table 3).

One other major concern of the ASER report was the consistent disparity between budgeted and actual expenditure over the three years for all sector agencies. This may not necessarily imply an inability to spend budgeted allocations but may reflect post-budget adjustments by the MoF or the non-disbursement of donor funds.

¹² There is a suggestion that COCOBOD neglected to include the substantial STABEX transfers to Ghana in this data. Moreover, there was significant donor support to cocoa research up to the end of 1994 (ASER, 1998).

Table 3 Functional composition of agricultural expenditure 1995 – 97 (%)

Extension	23%
Crop development	21%
Administration/ planning	17%
Livestock development	9%
Infrastructure	6%
Forestry	6%
Fisheries	2%
Other	13%

Source: ASER (1998) Chart 4.1

Expenditure in 2000-05. The examination of expenditure patterns over the 2000-05 period is limited mainly to MoFA expenditure from domestically-financed discretionary funds (DD-F)¹³. However, from the data available it would appear that government expenditure to the sector is still extremely low at around 3 percent of DD-F.

Table 4 Govt. discretionary domestic expenditure on agriculture 2000 - 2005

	2000a	2001a	2002a	2003a	2004a	2005p
GDP at current prices cedis (¢) bn	27,153	38,071	49,293	66,158	79,804	97,018
CG DD-F expenditure on MoFA ¢ bn	51.6	63.0	80.9	105.7	131.5	188.9
CG DD-F expenditure on MoES ¢ bn	58.2	74.4	95.7	114.7	175.3	165.4
Total Central Govt (CG) exp. as % GDP	27.7%	32.7%	26.1%	29.0%	33.3%	30.7%
CG Total recurrent exp. as % GDP	18.5%	19.9%	19.8%	22.9%	23.7%	20.8%
CG DD-F expenditure as % GDP	10.8%	11.1%	12.1%	11.5%	12.7%	12.8%
MoFA as % total DD-F expenditure	1.8%	1.5%	1.4%	1.4%	1.3%	1.5%
MoES as % total DD-F expenditure	2.0%	1.8%	1.6%	1.5%	1.7%	1.3%

Source: WB (2005a, 2006a)

Note: a = actual; p = provisional.

Table 4 indicates that central government (CG) total expenditure (recurrent and capital) through the budget process (and Consolidated Fund) has been equivalent to between 26 and 33 percent of GDP over the period 2000-05. Over the same period, CG total recurrent expenditure has been between 18 and 24 percent of GDP and 'discretionary' (that omits interest payments) domestically-financed expenditure has represented between 10 and 13 percent of GDP. MoFA has only received between 1.3 and 1.8 percent of this domestically-financed discretionary expenditure (0.5 to 0.7 percent of total CG expenditure). MoES has received marginally more in most years, although only a proportion of this will be spent on agricultural research¹⁴. In both cases this level of expenditure represents approximately 0.2 percent of GDP, or around 0.45 percent of agricultural GDP, as agriculture's contribution to GDP was 36 to 39 percent of GDP in the period 2000-05.

¹³ In the time available for the study it was not possible to obtain the GoG documents required for a more detailed analysis.

¹⁴ The 2005 Budget Statement states '(CSIR) will be provided with ¢15 billion to undertake agricultural research'. p.292. RoG (2005). Whether this is the total funding or additional is not clear. However, (Ayensu, 2005) states that not more than \$US5m (including donor funds) is spent on research and technology development (RTD) of which 73 percent is funded by Government with about 80 percent of funding directed mainly at agricultural research. This would put government spending on RTD at around ¢33 bn and total spending on agricultural research at ¢36 bn using the 2004 exchange rate.

As in previous years, MoFA continues to experience large discrepancies between planned (voted) expenditures and actual expenditures. It is also apparent that MoFA still relies heavily on donor support. MoFA accounted for 22 percent of total donor spending¹⁵ in 2001 (RoG, 2005a) when donor aid represented 86 percent of total non-wage expenditure in agriculture (RoG, 2003). Between 2002 and 2004 MoFA received between 8 and 11 percent of total donor spending. The 2005 Budget Statement indicates that ₵642.9 bn was to be made available to MoFA of which ₵220.6 bn would be from the Government and ₵422.3 bn (two-thirds) from donors. However, even if this total level of funding for agriculture materialised in 2005, it would represent only 2.4 percent of total (RoG, HIPC and donors) budgeted expenditure or 0.66 percent of GDP.

Recurrent expenditure

Given the low level of government expenditure allocated to the agricultural sector, it is not surprising to find that the vast majority is absorbed by personnel emoluments (70 to 80 percent for MoFA) and administration (10 to 15 percent) (Table 5) leaving only 8 to 13 percent of domestically-financed funds for services and investment in 2002 to 2004 with which to undertake operations. However, the provisional figure for 2005 indicates that this has risen to almost 20 percent. The situation in MoES is even worse.

Table 5 Utilisation of CG DD-F expenditure.

	2002a	2003a	2004a	2005p
Ministry of Food and Agriculture				
DD-F expenditure ₵ bn	80.9	105.7	131.5	188.9
Of which:				
Salaries %	72.4%	80.0%	74.4%	70.8%
Administration %	14.7%	11.8%	14.1%	9.7%
Services %	12.2%	8.0%	3.9%	5.5%
Investment %	0.6%	0.1%	7.6%	14.0%
Ministry of Env. & Science				
DD-F expenditure ₵ bn	95.7	114.7	175.3	165.4
Of which:				
Salaries %	86.5%	82.9%	88.0%	70.1%
Administration %	9.4%	8.0%	5.2%	27.0%
Services %	3.2%	7.7%	5.5%	2.4%
Investment %	0.8%	1.4%	1.4%	0.5%

Source: World Bank (2005b, 2006a)

HIPC Funds. The majority of poverty is located in the rural areas and agriculture represents 36 to 39 percent of GDP and is the source of livelihood, directly or indirectly, for 55 to 60 percent of the population (RoG, 2003). Not surprisingly in these circumstances, agriculture has been recognised as a poverty-related area eligible for HIPC funds to increase expenditure on administration, services and investment. In total, these funds have increased the total discretionary funds available to the government by approximately 20 percent per annum. However, the vast majority of the money has been allocated to basic education and health care and only around 1 percent has been allocated to agriculture (Table 6). Even this

¹⁵ These figures appear to relate to all donors regardless of whether it goes through the national budget or not.

small amount was enough to increase the funds available to MoFA for administration, services and investment by 47 percent.

Table 6 Distribution of HIPC Funds

	2003	2004	2005 Prelim	2006 Proj
Agriculture ¢ bn	8.6	18.9	16.6	0
Total ¢ bn	721.7	1,629.1	1,943.56	1,822.2

Source World Bank (2004, 2005b, 2006a)

Internally generated funds (IGF). Another source of recurrent funds available to MoFA is revenue generated from its sale of goods and services. This is not reflected in the government budget. IGF generated by MoFA amounted to ¢29.6 bn and ¢17.1 bn in 2004 and 2005 (provisional) respectively (World Bank, 2006a). Of this total, ¢7.7bn and ¢2.4 bn were retained by MoFA in 2004 and 2005 respectively.

Development expenditure

As indicated above, government has allocated little of its own resources to agriculture. As a result, virtually all development expenditure is provided by donors or through private sector investment. Even though donor funds have added significantly to public expenditure on agriculture in recent years, Table 7 indicates that loans and grants signed and disbursed to agriculture, livestock and crop projects is a small proportion of the total flow of donor funds. Larger amounts have been signed for feeder roads and rural development projects.

Table 7 Loans and grants signed, 2002-04 by sector

	Grants	Loans	Total	% of Total
	US\$m			
Loans and grants signed 2002-4	1,001.2	1,207.9	2,209.2	100.0
Of which: Agriculture (general)	3.7	24.7	28.4	1.3
Livestock		22.9	22.9	1.0
Crops		3.6	3.6	0.2
Feeder roads	110.7		110.7	5.0
Rural development	0.2	100.9	101.1	4.6
2002-4 signings disbursed up to 2004	318	335.7	653.8	100.0
Of which: Agriculture (general)	0	1.1	1.1	0.2
Livestock		1.4	1.4	0.2
Crops		0	0	0
Feeder roads	2.9		2.9	0.4
Rural development	0.1		0.1	0

Source: World Bank (2005b) Table 24

Planned 2007 expenditure

When the anticipated level of expenditure in 2007 (Table 8) is compared with the findings of the ASER, it would appear that little has changed over the intervening years, indeed, the situation has worsened. In 2007 projected MoFA expenditure will represent 3.3 percent of total government discretionary expenditure (3.9 percent in 1997). Between 1995-07, donors contributed around 67 percent of MoFA

expenditure (ASER, 1998). In 2007 MoFA is expected to rely on donor finance for 57 percent of its expenditure with non-discretionary (HIPC) funds accounting for an additional 14 percent. Furthermore, in 1997 MoFA expenditure represented 0.75 percent of GDP; for 2007 the share is 0.67 percent.

Table 8 Planned expenditure in MoFA 2007 (¢ bn)

MoFA	Salary	Admin	Services	Capital	Total	%Total MoFA	% Total govt
Discretionary exp.	178.3	11.9	214.7	627.1	1,032.1	85.6%	3.3%
Of which: GoG (DD-F)	178.3	10.3	5.4	144.2	338.3	28.0%	1.7%
IGF		1.6	2.6	0.7	4.8	0.4%	0.2%
Donor			206.7	482.3	689.0	57.1%	7.7%
Statutory Funds: HIPC				174.0	174.0	14.4%	2.3%
Total MoFA exp.	178.3	11.9	214.7	801.1	1,206.1	100.0%	3.1%
% Total MoFA	14.8%	1.0%	17.8%	66.4%	100.0%		

Source: Provisional 2007 budget estimates

2. Returns to agriculture investments

No detailed account of the allocation of government and donor funds within the agricultural sector is available but, as indicated earlier, the resources allocated to agricultural research have been extremely constrained. However, it would appear that more resources are now being allocated to research. The 2005 Budget Statement indicates that in 2004 HIPC funds were used mainly for the importation of tractors and the distribution of machinery and equipment for small-scale agro-processing industries. Project funds were also spent on:

- Increasing the operational and cropping efficiency on existing irrigation projects as well as increasing the area of irrigable land;
- The production and distribution of improved seeds and planting materials;
- On farm trials to review fertiliser recommendations for cassava and maize;
- Financial support to livestock farmers and processors to expand their businesses;
- Production of 3.6 million doses of vaccine for Newcastle disease in poultry;
- Provision of over ¢12 bn of agricultural production credit to farmers groups.

All of these investments have the potential to remove constraints to increased agricultural productivity and production, but there has been a tendency in the past for a large number of projects to be implemented in an uncoordinated fashion and with little regard for recurrent cost implications and long-term sustainability (Wetzel, 2000).

3. Agriculture budget processes and political economy issues

Recent evaluations of Ghana's budgetary system (World Bank/IMF, 2004; Killick, 2005; World Bank 2006a), while acknowledging improvements in recent years observe that there are considerable weaknesses in the system. A recent report (World Bank, 2006a) comments on: the increasing variations between budget

allocations and outturn at the budget head level; the squeeze on domestically-financed capital spending due to unbudgeted wage bill increases; the quality of accounting and fiscal reporting; and delays in funds reaching front line service units. Moreover, the coverage of external funds in the annual estimates is not yet complete, and annual estimates are not yet fully translated into appropriations, expenditure authorization and cash releases (World Bank, 2006c). Killick (2005) observes that the types of weaknesses found in Ghana's budget process are entirely consistent with those anticipated by a neo-patrimonial model of politics.

In common with most other developing countries, Ghana has introduced a Poverty Reduction Strategy. The Ghana Poverty Reduction Strategy 2003-05 (GPRS) was implemented with a focus on five priority areas:

- Infrastructure development
- Modernisation of agriculture based on rural development
- Enhanced social services
- Good governance
- Private sector development.

In terms of government DD-F expenditure, the clear priority has been enhanced social services with education and health consistently receiving over half of total government resources. As indicated in Tables 4 and 5, very little government expenditure has been allocated to agriculture over this period and there is no indication that it has increased as a proportion of the total. Similarly, government has allocated only 1 percent of the funds available under HIPC directly to the agricultural sector (Table 6). However, in terms of development expenditure, the intention in the medium term was to achieve a better sectoral composition, with the social sector receiving around 45-48 percent of total development sector and agriculture receiving between 9 and 10 percent (RoG, 2003 Table 4.2). This would appear to have been achieved.

The three pillars of the Growth and Poverty Reduction Strategy (GPRS II) RoG, 2005c) that the Government started implementing in January 2006 are:

- Human Resource Development
- Priorities for Private Sector Competitiveness
- Good Governance

The modernisation of agriculture and the strengthening of infrastructure constitute the core of the second pillar but the costs of implementing the policies already in place for the education and health sectors raise concerns over the resources available for other sectors if GPRS II priorities are implemented. For example, as indicated in Table 8, the agricultural sector is scheduled to receive only 3.3 percent of total GoG discretionary expenditure in 2007.

Although public financial management in Ghana has improved considerably in recent years and there are signs of much closer donor coordination (World Bank, 2006c), there is still a need to do more to link policy priorities and the MTEF and budget processes more closely together.

References

- Ayensu, E S (2005) Ghana Research and Technology Development Scenarios for Research and Technology Development Cooperation with Europe (SCOPE)
http://prest.mbs.ac.uk/prest/SCOPE/documents/National_Report_Ghana.pdf
- Killick, T (2005) The politics of Ghana's budgetary system. CDD/ODI Policy Brief no. 2, November 2005.
- Republic of Ghana (1998) Agriculture Sector Expenditure Review, MoFA.
- Republic of Ghana (2003) Ghana Poverty Reduction Strategy 2003 – 2005: an Agenda for Growth and Prosperity. Volume I: Analysis and Policy Statement.
- Republic of Ghana (2005a) Ghana Poverty Reduction Strategy: 2004 Annual Progress Report. National Development Planning Commission, March 2005.
- Republic of Ghana (2005b) The Budget Statement and Economic Policy of the Government of Ghana for the 2005 Financial Year, 24 February 2005.
- Republic of Ghana (2005c) Growth and Poverty Reduction Strategy (GPRS II) (2006 – 2009). National Development Planning Commission, November 2005
- Wetzel, D. (2000) "Promises and Pitfalls in Public Expenditure", in Aryeetey, Ernest, Jane Harrigan and Machiko Nisanke (Eds.) Economic Reforms in Ghana: The Miracle and the Mirage, Oxford: James Currey and Woeli Publishers.
- World Bank (2004) Ghana: Supporting Reforms for Accountable and Transparent Public Expenditure Management Report No. 29623-GH September 2004
- World Bank/ IMF (2004b) Public Expenditure Management Country Assessment and Action Plan (AAP: Ghana. May 28, 2004.
- World Bank (2005a) Ghana: 2005 External Review of Public Financial Management Vol I, Report No. 32595-GH December 2005
- World Bank (2005b) Ghana: 2005 External Review of Public Financial Management Vol II - Annexes, Report No. 32595-GH December 2005
- World Bank (2006a) Ghana: 2006 External Review of Public Financial Management Vol I, Report No. 36384-GH June 2006
- World Bank (2006b) Ghana: 2006 External Review of Public Financial Management Vol II, Report No. 36384-GH June 2006
- World Bank (2006c)
<http://siteresources.worldbank.org/CDFINTRANET/Overview/21164735/GhanaFINALDecember182006.doc>

Kenya Case Study

1. Agriculture expenditure trends and patterns

Total agricultural expenditure

Available statistics indicate that in the first decade after Independence (1965-75) on average Kenya spent over 10 percent of its total government budget on agriculture (including livestock, fisheries and cooperatives). Since then there has been a dramatic decline in expenditure to an average of 7.5 percent over the period 1980 – 1989 and to just 3 percent in the 1990 - 2000 period. More recently agriculture spending has varied between 3.0 and 4.0 percent of total government expenditure and at around 0.7 - 0.8 percent of total GDP, or about 3 percent of agricultural GDP (Table 1). This level of agriculture spending is low even by sub-Saharan Africa standards.

Table 1 Expenditure by the three agricultural ministries (Kshs million)

	Actual					Projected			
	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9
Recurrent	5,438	5,485	5,869	6,404	6,236	8,304	10,497	11,096	11,997
Development	1,652	1,052	1,202	2,858	2,721	4,555	6,522	9,712	11,655
Total	7,090	6,537	7,071	9,262	8,957	12,859	17,019	20,808	23,652
Recurrent as % total	76.7%	83.9%	83.0%	69.1%	69.6%	64.6%	61.7%	53.3%	50.7%
Agric. as % total GoK expenditure	4.2%	3.8%	3.8%	3.6%	2.9%	3.7%	4.4%	4.8%	5.2%
Agric. as % total GDP	0.8%	0.7%	0.7%	0.7%	0.6%	0.8%	1.0%	1.1%	1.2%

Sources: GoK (2004d), (2006a), 2006b).

Since July 2003, three ministries - all formerly under one umbrella - have handled agricultural activities in Kenya: the Ministries of Agriculture (MoA), of Livestock and Fisheries Development (MoLFD), and of Cooperative Development and Marketing (MoCDM). Over the period 2003-05, MoA accounted for 61 percent of total agricultural expenditure, MoLFD for 29 percent, and MoCDM for 10 percent.

Recurrent expenditure

Over this period (2003-05), recurrent spending has accounted for 69 percent of total government expenditure through the three agricultural ministries, although for the three previous years it averaged over 80 percent. These figures however, are probably underestimates as much 'development' spending - especially that funded by development partners - includes both capital and recurrent expenditure.

In 2002/03 wages and salaries accounted for 50 percent of the recurrent expenditure of the three ministries, with operations and maintenance (O&M) accounting for 25 percent, and transfers and subsidies to parastatals (mainly research institutes and regulatory bodies) accounting for 23 percent. Little recurrent expenditure was spent on plant and equipment.

From the MoA budget, expenditure on agricultural research and extension accounted for 80 percent of agricultural spending over the period 2000-03, declining to 70 percent of spending over 2003-06. During this latter period, 43 percent of the research and extension budget was allocated to research centres (including livestock research and vaccine production) under the control of the Kenya Agricultural Research Institute (KARI), 49 percent consisted of salaries and wages of extension staff, leaving only 8 percent for delivery of extension services, demonstration plots, vehicle maintenance and fuel, new equipment and vehicles (Muyanga and Jayne, 2006). The implications of this allocation pattern are discussed below.

Over the period 2000-03 for MoLFD:

- Around 55 percent recurrent expenditure was accounted for by wages and salaries;
- Transfers to parastatals accounted for another 10 percent (the vast majority is to the Kenya Marine and Fisheries Research Institute (KEMFRI));
- Operations and maintenance, mainly the control of livestock diseases and pests, accounted for one-third of recurrent expenditure.

Meanwhile for MoCDM:

- Around 30 percent recurrent expenditure was on wages and salaries;
- Six percent was represented by transfers and subsidies;
- Nearly two-thirds was accounted for by operations and maintenance.

MoCDM has three sub-votes or functional units. The greater part of recurrent expenditure (72 percent) is on cooperative management services, with an additional 17 percent being accounted for by general administration and planning services. Training at the Cooperative College accounts for the remaining 11 percent.

Development expenditure

Over 2003-05, agricultural sector development spending¹⁶ reached 31 percent of total agricultural expenditure, after accounting for only 19 percent in the previous 3 years. For reasons discussed later, agricultural development expenditure has been relatively low and highly variable in volume and effectiveness.

Over the same period, MoA accounted for three-quarters of development spending by the three ministries. Within MoA these funds are used for agricultural research and market information, animal health services, crop protection, seed inspection, mechanisation services, and farm planning services. In MoLFD, the limited amount available for development expenditure has been allocated to core public good and poverty programmes in the areas of livestock extension services, fisheries development, development of veterinary farms, and disease and pest control.

¹⁶ It should be noted that 'development spending' is mainly composed of funds from development partners for programmes and projects and may contain a large element of wage and salary expenditure. It is therefore not synonymous with capital expenditure.

The 2006 Budget Strategy Paper (BSP)¹⁷

Budgetary support from bilateral and multilateral sources has become increasingly politicised and unpredictable in Kenya. As a result the 2006 BSP excludes budgetary support from the fiscal framework. Notwithstanding this conservative fiscal stance, the Government states that it remains strongly committed to implementing key reforms in the areas of public expenditure management, governance, privatization and financial sector as part of efforts to ensure efficiency and effectiveness in public service delivery. It therefore also presents an alternative scenario where implementation of these reforms triggers bilateral and multilateral budgetary support amounting to about USD450 million (or KShs.33.75 billion) per year.

The medium term fiscal framework focuses on, *inter alia*, ensuring a significant shift in resource allocation towards ERS priority social and economic sectors. Total expenditures are projected to remain broadly unchanged at around 25.8 percent of GDP over the medium-term, as a decline in recurrent expenditures is offset by higher development spending. Reflecting the ERS's objective of restructuring expenditures in favour of infrastructure, the share of capital spending in total expenditures is projected to rise from 15 percent in 2004/05 to 27.8 percent in 2008/09 - in terms of GDP, capital expenditures are projected to rise from 3.4 percent of GDP in 2004/05 to 7.1 percent in 2008/09.

Given the need to implement the Strategy for the Revitalization of Agriculture (SRA) to address low agriculture productivity, poverty and unemployment in rural areas, the share of resources allocated to the agriculture sector is projected to increase sharply from 2.4 percent in 2005/06 to 3.5 percent in 2008/09. For agriculture and rural development sector as a whole, the share of resources is projected to increase from 5.3 percent to 7.3 percent over the same period.

Table 2: Sector spending with / without budget support (% GoK spending)

	Without budget support ^a				With budget support ^b			
	2005/6	2006/7	2007/8	2008/9	2005/6	2006/7	2007/8	2008/9
Social Sectors	36.0	36.7	36.8	37.6	36.2	37.56	37.6	38.3
Health	8.6	9.0	9.0	9.4	8.6	10.0	10.0	10.3
Education	27.6	27.7	27.7	28.2	27.6	27.5	27.6	28.0
Economic Sectors	24.5	26.0	27.3	28.9	24.5	27.6	28.7	30.1
Agriculture and Rural Development	5.3	6.2	6.9	7.3	5.3	7.5	8.0	8.3
<i>o/w Agriculture</i>	2.3	2.9	3.3	3.5	2.3	2.8	3.1	3.3
Infrastructure	19.2	19.8	20.5	21.6	19.2	20.1	20.7	21.8
Other	39.3	37.3	35.9	33.5	39.3	34.9	33.7	31.6
Total	100	100	100	100	100	100	100	100
Dom. debt reduction					0	1.7	1.5	1.5

Source: Budget Strategy Paper (2006)

Notes: a. Includes budgetary support included in the PRGF

b. Includes potential additional donor support from bilaterals averaging about US\$450 m p.a.

¹⁷ Updated information on the budget, including the Budget Outlook Paper, the Budget Strategy Paper and sector reports are posted on the website of the Ministry of Finance. <http://www.planning.go.ke/> and <http://www.treasury.go.ke/>

Any additional bilateral and multilateral budgetary support would be used to scale up the non-wage core priority poverty programs with a view to increasing their ratio to GDP from about 1.5 percent in 2004-05 to 3 percent in 2008-09. Overall, additional external support will primarily go towards reducing domestic debt and scaling up programs in the social (MDG interventions) and economic sectors. Resources earmarked for agriculture and rural development would increase to 8.3 percent from 7.3 percent in the baseline while physical infrastructure will increase to reach 21.8 percent compared with 21.6 percent in the baseline (Table 2).

2. Returns to agriculture investments

Although a high proportion of the agricultural sector budget is allocated to research and extension - functions that are customarily considered to yield a high return to government investment - most analyses of the Kenyan situation suggest that, in recent years at least, returns have been disappointing. A variety of factors interact to cause this situation, many of them common to most countries in the region:

- Although a high proportion of sector expenditure is allocated to research and extension, this is still small relative to sector GDP;
- The research service has been undergoing substantial restructuring, reorientation and capacity building over the last decade and although considerable progress has been made in increasing its efficiency and effectiveness, this process is still underway. In particular, the service is still not producing sufficient technologies suited to the resource endowments of poor farmers (WB, 2004a).
- Core problems facing the research system include:
 - A narrow technological focus compounded by moderate to low adoption rates of outputs;
 - A centralised and tightly compartmentalised research system;
 - Limited scope to retain researchers due to poor career opportunities;
 - A sub-optimal use of assets and/or redundant capital investment and;
 - Poor overall accountability of the entire system (World Bank, 2004b).
- Recent evaluations note that dissemination of research findings is hampered by poor linkages between the research and extension services (WB, 2004b);
- Despite trying a number of extension models and styles over recent decades, the current public extension service has been described as “ineffective and inadequate and a main cause of the poor performance of the agricultural sector” (Muyanga and Jayne, 2006). In particular, as noted above, the overall low level of funding has starved the extension services of the O&M funds essential for effective extension delivery;
- The situation has not been helped by the heavy reliance of both research and extension services on donor funding which has been unreliable in recent years as donors have reacted to changing governance conditions in Kenya.

The main focus of the WB-financed Kenya Agricultural Productivity Project (KAPP) is to improve the efficiency and effectiveness of the research and extension services through a coordinated approach involving both the public and private sectors with a greater involvement of all stakeholders in decision-making processes.

3. Agriculture budget processes and political economy issues

In 2000, towards the end of the Moi regime, the GoK subscribed to the Poverty Reduction and Growth Facility (PRGF) and started the preparation of a Poverty Reduction Strategy Paper (PRSP 2001-04). In December 2002, when the NARC government took office, it immediately started preparing an Economic Recovery Strategy (ERS) (GoK, 2004c) to revive the economy and create employment. The ERS presents a road map for recovery over the period 2002-07 and takes into account existing government documents, particularly the PRSP and NARC's manifesto and post-election action plan. In 2004 the government produced a Strategy for the Revitalisation of Agriculture (SRA) based on a paradigm shift that foresees a radical change in culture and operations of the agricultural sector Ministries. This strategy proposes two core roles for government in agriculture:

- To provide a limited range of goods and services, and;
- To carry out a reduced range of regulatory functions that could not be enforced through private self-regulation and industry codes of conduct.

As part of the PRGF, governments are required to develop and implement their budgetary processes through a medium-term expenditure framework (MTEF). Kenya adopted the MTEF process in FY 2000-01. This is an outcome-based planning and budgeting process that seeks to establish an explicit link between policy planning and budgeting by providing a formal framework linking line ministries with the Ministry of Planning and National Development and Ministry of Finance. More importantly, the MTEF objective is to strengthen the linkage between national development policies and the annual budget and to provide the means of aligning expenditures to national priorities, outputs and outcomes set in the ERS (GoK, 2004a). The effectiveness and impact of public expenditure in the agricultural sector through the MTEF process is reviewed by a Public Expenditure Review (PER) process. As the SRA amplifies the intentions for the agricultural sector as set out in the ERS, in principle the MTEF process should provide a transparent and effective mechanism for allocating resources from the national budget to agricultural sector priority areas.

The formulation of the Kenya MTEF process is coordinated by the MTEF Secretariat in the Ministry of Planning and National Development (MPND) and involves the following steps:

- 1 All line ministries and other departments are classified into eight broad Sectors along functional and thematic lines and a Sector Working Group (SWG) is formed for each. The Terms of Reference of each SWGs are broad and extensive (see box). The Agriculture and Rural Development SWG consists of 5 Ministries: (i) Agriculture; (ii) Livestock Development & Fisheries Development; (iii) Cooperative Development & Marketing; (iv) Environment & Natural Resources; and, (v) Lands & Settlement.
- 2 Following a Treasury Circular in early February that launches the MTEF Budget process, line ministries prepare MTEF submissions for the SWGs. The level of detail in the submissions varies with ministry but they typically contain financial plans for three years and identify priority spending areas. Line ministries are expected to carry out a careful review of the ongoing programs and activities and also cost them before making these submissions.
- 3 Separately, during February/March, the Macro Working Group in the MPND prepares a Fiscal Strategy Paper (FSP) that includes a three-year medium term macro-economic and fiscal framework to form the basis of forecasts of tax

revenues and grants. The FSP proposes an aggregate resource envelope for the next year's budget based on aggregate resource estimates and fiscal objectives.

- 4 The SWGs prepare Sector Reports based on MTEF submissions of line ministries and taking into account 'inter and intra-sectoral linkages'. Sector Reports include financial plan and priority programs/activities for the Sector.
- 5 Sector Reports are presented to stakeholders in Sector Hearings organized in mid-March. NGOs, development partners, and members of parliament are invited to these open hearings. Hearings normally last for two days (about 2 hours for each Sector). Multiple stakeholders (government, civil society organizations, and development partners) are also active in the budget preparation process through their involvement in the government's sector working groups tasked with formulating sector priorities and budget requests.
- 6 Based on the feedback received at the Sector Hearings, and taking into account the FSP, Sector Ceilings are developed by the Treasury and conveyed to the SWGs and line ministries.
- 7 SWGs now organize Sector Resource Bidding (towards end-March) where line ministries lay claims to shares of resources within the Sector Ceilings conveyed by the Treasury.
- 8 Ministerial Ceilings are developed based on the Sector Resource Bidding and conveyed by the Treasury to line ministries in early April (For the 2004/05 MTEF there was no formal conveyance of ministerial ceilings).

Summary Terms of Reference for SWGs (GoK, 2004d)

1. Review the MTEF budget and establish cross sector reallocations and deviations.
2. Define the sector and establish spending needs for purposes of the MTEF process.
3. Co-ordinate activities leading to the development of a Sector-Wide Plan and Report.
4. Identify sector development objectives.
5. Identify Sector Strategies in light of the identified constraints.
6. Identify the overall sector priority or priorities.
7. Analyse cost implications of policies and strategies in the sector.
8. Identify potential outcomes in light of the constraints.
9. Identify inter- and intra-sectoral linkages.
10. Identify priorities and programmes within the sector to tackle the sector priorities.
11. Identify strategies in respect of cross-sectoral issues.
12. Identify performance targets, monitorable indicators, and modalities to monitor them.
13. Ensure expenditure allocations are in line with the Sector Wide Plan.
14. Justify all proposed projects in the Sector Investment Programme.
15. Monitor budget implementation and participate in the Mid-Term Review for the sector.

The conveyance of ministerial expenditure ceilings to line ministries completes the MTEF process and line item budgeting takes over. Line ministries submit three-year line item budget estimates to the Treasury, which consolidates them into budget during the last week of April. The budget goes to parliament in the first week of June.

A recent World Bank (2006) document offers the following evaluation of recent budget reforms in Kenya¹⁸:

‘The reform of the budget process is helping shape public expenditure around priorities presented in the IP-ERS. The combined share of education, health, agriculture, and infrastructure to total expenditure increased from 56 percent in 2004/05 to 61 percent in 2005/06, with health and education accounting for 36.2 percent. The share of these priority sectors to total expenditure is projected to increase to 66.5 percent in 2008/09. Expenditure for education is already high by the standards of countries with similar incomes, so will remain stable at around 27–28 percent of total expenditure. Public expenditure for health where challenges are particularly great is expected to increase from 8.6 percent in 2005/06 to 9.4 percent in 2008/09. However, implementation bottlenecks still hamper effective use of resources. Ten percent of expenditure is funded through revenues outside the budget. Ministerial budgets and actual expenditure diverge significantly, reflecting frequent use of in-year budget reallocations. In April 2006, a supplementary budget transferred a significant share of unspent capital funds to the recurrent account, to the detriment of investment.

The government is taking action to address some of these issues. By the end of December 2005, Kenya had met six of the 16 benchmarks of the Public Expenditure Management Assessment and Action Plan; the government is committed to meeting all 16 benchmarks before 2008/09. The government launched in June 2006 a comprehensive public financial management program aimed at achieving progress in the 28 areas of the internationally agreed Public Expenditure and Financial Accountability (PEFA) framework.

From 2006/07, the government intends to limit budget reallocations to no more than 8 percent of the total budget and disallow them for new policies and programs. To strengthen performance within the civil service, in 2005 the government launched results-based management across the civil service and introduced performance contracts for all senior officials, who are expected to deliver specific outputs in line with their annual work plans, strategic plans, the IP-ERS, and the MDGs. It is also piloting rapid-results initiatives, which are helping strengthen performance within some government institutions.

In 2005, the parliament enacted the Government Financial Management Act and developed a new chart of accounts. It is developing an integrated financial management and information system (IFMIS). The system will rely on existing management information systems within each ministry, which however need to be strengthened. The Central Bureau of Statistics has made some progress in developing protocols for sector ministries to transfer information to the IFMIS. The IFMIS is currently being piloted within the Ministries of Finance and Planning and National Development. However, insufficient technical and human resources have delayed its roll-out to other ministries. The 2005 World Bank Country Policy and Institutional Assessment (CPIA) performance criterion that assesses the quality of budgetary and financial management places Kenya at 3.5 on a scale of 1 (very weak) to 6 (very strong).

In June 2006, the government launched a comprehensive public financial management program with support of a multi-donor basket fund. The program aims to improve budgeting, procurement, financial management, internal control, and external auditing. Demonstrated progress will encourage development partners to channel a greater proportion of their funds through government systems.

Disbursements are not timed to coincide with the budget cycle and external financing is not yet fully reflected in the budget. Nonetheless, external partners are working with the government to ensure that all development assistance, except for that channelled through NGOs or for humanitarian assistance, is on budget. External partners have also established a basket funding mechanism to support the work of the agricultural sector coordination unit.’

¹⁸ An independent evaluation of budget reforms up to 2003 is provided by Masya and Njiraini (2003).

Experience from other countries suggests that the establishment and continued maintenance of a rigorous policy planning and budgeting process of the type envisaged requires considerable analytical and administrative skills, even for a single line ministry. In addition it also requires effective communication skills on the part of the Ministry of Finance and Ministry of Planning and National Development, the Steering Committees for the PER process and the ERS and the ERS Technical Coordination Committee. There is also a concern that the whole MTEF/PER process may be seen as being overly donor-driven and, above all, the process requires clear political commitment and widespread local ownership if it is not to become a costly and ineffective charade. With regard to the agricultural sector, it is assumed that implementation of the SRA and linking it with the MTEF and PER processes will require a coordinated input from the three sector ministries but it is debatable whether there is sufficient analytical and administrative capacity available within the ministries at the current time to achieve this (OPM, 2004).

The PER carried out in 2004 illustrates many of the weaknesses of the budgetary process at that time. In recent years actual expenditure, both recurrent and development, had been below budgeted amounts because of:

- *Unpredictable budgetary cuts by treasury due to low revenue collections.* Often, approved budgets are lower than the initial printed estimates and priorities do change during revision of estimates leading to realignment of resource requirements;
- *Poor public expenditure management and the incremental nature of budgeting.* Resource requirements are not appropriately matched with realistic departmental requirements leading to diversion of resources to non-core activities. It is also common knowledge that work-plans are not strictly adhered to once funds are secured through budgets and this leads to *ad hoc* spending. .
- *Lack of effective monitoring and evaluation and tracking of public expenditures.*
- *Retention of revenues.* Some appropriations in aid (revenues) generated by sector agencies are not remitted to government as revenue. 'There has been generally low realization of revenue collection due to a backlog of audit work.' (GoK, 2004d).

Many of these problems continue. A particular concern relates to under-expenditure of the development budget (GoK, 2006a). Continuing efforts are needed to ensure that budget allocations reflect policy priorities, and that actual expenditures are closer to budgeted figures. This is essential if the Government's intention is to continue allocating an increasing share of resources to agriculture in order to implement the "Strategy for Revitalization of Agriculture" over the next ten years (GoK, 2006b).

References

- Government of Kenya (2004a) Investment Programme for the Economic Recovery Strategy for Wealth and Employment Creation 2003-07, (Revised) February 2004.
- Government of Kenya (2004b) Strategy for Revitalizing Agriculture (2004-2014), March 2004.
- Government of Kenya (2004c) Investment Programme for the Economic Recovery Strategy for Wealth and Employment Creation 2003 – 07 Revised February 2004.
- Government of Kenya (2004d) Public Expenditure Review Final Report.

Government of Kenya (2006a) Medium Term Expenditure Framework 2006/07 – 2008/09 Report for the Agriculture and Rural Development (ARD) Sector (Final Draft) February 2006.

Government of Kenya (2006b) 2005 Budget Outlook Paper. January 2006

Government of Kenya (2006c) 2006 Budget Strategy Paper. June 2006

Masya, J.K. and Peter Njiraini, P. (2003) Budgetary Process in Kenya: Enhancement of its Public Accountability IPAR Discussion Paper No. 040/2003: . ISBN 9966-948-63-5. Institute of Policy Analysis and Research, Nairobi.

Muyanga, M. and Jayne, T.S. (2006) Agricultural Extension in Kenya: Practice and Policy Lessons. Tegemeo Working Paper 26/2006 Tegemeo Institute of Agricultural Policy and Development, Egerton University.

Oxford Policy Management (2004) Agriculture in Kenya: What Shapes the Policy Environment? Final Report Prepared by Lawrence Smith with Stephen Jones and Stanley Karuga. 24 September 2004.

World Bank (2004a) Kenya Second National Agricultural Research Project (NARP II) Implementation Completion Report No. 29359, June 29, 2004.

World Bank (2004b) Kenya Agricultural Productivity Project. Project Information Document Appraisal Stage Report No.AB 307, 2004.

World Bank (2006)

<http://siteresources.worldbank.org/CDFINTRANET/Overview/21159115/KenyaFINALDecember112006.doc>

Uganda Case Study¹⁹

1. Introduction

The policy and institutional framework for agriculture in Uganda is provided by the Plan for the Modernisation of Agriculture (PMA). The PMA, launched in 2001, is a strategic and operational framework to support poverty eradication through transformation of the agricultural sector. The PMA is based upon two fundamental principles. First, that agriculture is critical for poverty reduction; second, that the development of the sector is dependent upon interventions in areas other than agriculture alone (e.g. investments in rural infrastructure). This case study reviews trends and patterns of spending to agriculture through the core sector agencies, as well as spending against a broader set of PMA-relevant activities through wider ministries and government agencies.

2. Expenditure through core sector agencies

Total spending

The core government agencies responsible for agriculture are the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF), the National Agricultural Research Organisation (NARO), and the National Agricultural Advisory Services (NAADS).

Table 1 Agriculture spending (Ush bn)

	2003-04 outturn	2004-05 outturn	2005-06 outturn	2006-07 budget	2007-08 projected	2008-09 projected
MAAIF						
Recurrent ¹	5.32	9.54	9.17	9.72	12.14	14.20
Development	61.85	58.27	76.02	55.96	133.71	136.87
NARO						
Recurrent	1.90	1.92	2.80	2.84	2.85	8.86
Development	19.36	23.90	22.47	22.55	23.97	27.04
Extension						
District grant	6.00	5.98	6.00	7.04	10.38	11.04
NAADS Development	8.96	14.49	24.75	37.13	37.63	45.13
NAADS Secretariat	0.00	0.00	4.96	9.81	9.81	9.81
TOTAL AGRICULTURE	103.39	114.10	146.17	145.05	230.49	252.95
Agric. share of total GoU	3.3%	3.4%	3.9%	3.5%	5.4%	5.6%
Agric. spend as % agric.GDP	2.7%	2.5%	3.0%			

Source: MoF budget and expenditure data.

¹Includes Cotton Development Organisation and Uganda Coffee Development Authority

Spending through these agencies declined from an estimated 10 percent of total government spending in 1980 to 4 percent in 1997 (Uganda Agriculture PER, 1998). Since then, spending through the core sector agencies has remained low. Analysis of expenditure data over the period 2003-05 shows that spending through these agencies accounted for 3-4 percent of total government spending, or around 3.0

¹⁹ With input gratefully received from Martin Fowler, Sector Policy and Programme Adviser, MAAIF

percent of agriculture GDP (Table 1). This level of spending in agriculture is low relative to other developing countries, including countries in SSA.²⁰

However, the share of spending allocated to agriculture is projected to increase over the next three years, rising to 5.6 percent of total government spending by 2008. Much of the proposed increase in expenditure is driven by a projected rise in development spending managed through MAAIF – largely financed by donors. According to Ministry of Finance Planning and Economic Development (MoFPED) projections, donor spending through MAAIF is expected to more than double between 2006 and 2007. However, such projections have been notoriously inaccurate in past years.

Spending by function

The share of sector spending under the direct control of MAAIF has declined from 65 percent of total sector spending in 2003 to 58 percent in 2005. This share is projected to fall further, to 44 percent in 2006, before recovering to around 60 percent in 2007 and 2008. This expenditure covers a range of development projects as well as central sector administration costs.

The share of sector spending allocated to agricultural research is falling. Research accounted for 20-22 percent of sector spending in 2003-05. This share is projected to fall to 12-14 percent of sector spending by 2007-09.

The balance of spending is shifting in favour of extension. Agricultural extension services - mainly allocations to NAADS - are taking an increasing share of sector expenditures. The overall allocation to agricultural extension has increased from 15 percent of total sector spending in 2003 to nearly 25 percent in 2005. Spending on extension is projected to rise further to 37 percent of sector spending in 2006, before stabilising at around 25 percent over 2007-08.

Table 2 shows agricultural research and extension intensity ratios²¹ over the period 1996-98, and 2003-05. These ratios confirm the decline in relative spending to agricultural research, from 0.7 percent in 1996 to 0.51 percent in 2005, and a dramatic increase in relative spending to extension, with the intensity ratio for extension doubling from 0.36 percent in 1996 to 0.73 percent in 2005. Comparable data from other countries is not readily available. However, a recent study of agriculture research shows average ARIs in 2000 of 0.53 percent for developing countries and 0.72 percent for sub-Saharan Africa.²² This suggests that agriculture research spending in Uganda is broadly consistent with the developing country average, but below the average level for the sub-Saharan Africa region.

²⁰ A study of 43 developing countries shows that in 1998 average agriculture spending as a share of agriculture GDP of 7.9 percent. For SSA countries the figures is 6 percent (Fan and Rao, 2003).

²¹ Agricultural research and extension intensity ratios show public sector expenditure on these services as a proportion of agricultural GDP. They enable comparison with research and extension systems in other countries. However, they say nothing about the quality of services being delivered in terms of their effectiveness and efficiency.

²² Agricultural R&D in the Developing World - Too Little, Too Late?, IFPRI, Philip G. Pardey, Julian M. Alston, and Roley R. Piggott, eds. 2006

Table 2 Agriculture research and extension intensity ratios

	% Agric GDP	
	Research	Extension
1996	0.70%	0.36%
1997	0.41%	0.47%
1998	0.42%	0.41%
2003	0.56%	0.39%
2004	0.57%	0.45%
2005	0.51%	0.73%

Sources: 1996-98, Agriculture Sector Investment Audit, OPM 1999
2003-05, MOF budget and expenditure data

Recurrent and development spending

Table 3 provides a breakdown of recurrent and development spending on agriculture. Development spending consistently accounts for around 85 percent of total sector spending. This is high, leaving just 15 percent of the budget allocated to recurrent costs. Within development spending, donors have traditionally provided the majority of funding. However, this is beginning to change with domestic funding of the development budget forecast to exceed donor funding in 2006 and 2008. In 2007 a large injection of donor funds is forecast (more than double the donor contribution expected in 2006) – although it is not clear on what basis this projection is made.

Table 3 Recurrent and development spending (Ush bn)

	2003-04 Outturn	2004-05 outturn	2005-06 outturn	2006-07 budget	2007-08 projected	2008-09 projected
Recurrent						
wages	5.51	5.16	5.46	6.29	6.51	6.53
non-wages	7.71	12.28	15.03	17.77	23.32	32.03
	13.22	17.44	20.49	24.06	29.83	38.56
Development						
domestic	32.64	30.34	60.70	66.76	70.23	119.07
donor	57.53	66.32	64.98	54.23	130.43	95.32
	90.17	96.66	125.68	120.99	200.66	214.39
TOTAL	103.39	114.10	146.17	145.05	230.49	252.95

Source: MoF / MAAIF budget and expenditure data.

In the past, projected increases in development spending have not always been matched by increased recurrent allocations. As a result there has been a risk of capital spending exceeding government's capacity to meet the recurrent costs required of new investments (Agriculture PER, 1998). Looking forward, the projected increases in the development budget are matched by near commensurate increases in the recurrent budget. However, a question remains over whether an imbalance exists between the two sides of the budget, with a continued risk that recurrent funding is not sufficient adequately to service the proposed capital investments. This problem is offset however if, as with other countries, the development budget includes a significant recurrent component.

Within the recurrent budget, the share of wage to non-wage expenditures appears well balanced (avoiding the common problem of excessive wage spending with

insufficient funds for operations and maintenance). Wages as a share of total recurrent budget have declined from 42 percent in 2003-04 to 27 percent in 2005-06, and are projected to decline further to 17 percent of the recurrent budget by 2008-09.

3. Analysis of PMA expenditures

Overall trends and patterns

This section draws upon the evaluation of the PMA undertaken in 2005 (OPM 2005). As discussed above, the PMA is a broad framework for poverty reduction through the transformation of the agriculture sector. Analysis of PMA expenditures therefore includes spending on activities wider than those implemented through the core sector agencies – including for example, spending on rural infrastructure, natural resource management, agro-processing and marketing.

The PMA evaluation found that recently PMA expenditures have accounted for around 10 percent of total GoU spending. This is significantly greater than the 3-4 percent of government spending accounted for by the core sector agencies (see above).

Table 4 shows that over the period 2001-02 to 2003-04 spending on PMA development projects and spending under the Poverty Alleviation Fund (PAF) have together accounted for 90 percent of total PMA expenditures. The data also confirm the increasing share of spending through NAADS.

Table 4 Breakdown of PMA actual expenditure, Ush bn

	2001/02	2002/03	2003/04
1. MAAIF & NARO recurrent	5.5	6.6	6.6
2. PMA relevant projects	159.5	174.1	163.0
3. NAADS districts	2.4	5.5	9.0
4. LGDP (at 25% PMA relevant)	11.2	10.6	16.3
5. Other PAF, not included above	59.7	62.6	75.4
Total	238.4	259.4	270.3
PMA share of total GoU	11.2%	11.0%	10.2%

Source: MoFPED database on devt spending / Public Investment Plan / Background to the Budget

The evaluation found that 80 percent of total PMA project spending is accounted for by four agencies MAAIF (25%), Ministry of Works Housing and Communication (24%), Ministry of Water Lands and Environment (22%) and NARO (10%); the remainder being split amongst eight other PMA implementing agencies. Together MAAIF, NAADS, and NARO accounted for 35 percent of PMA project spending over the three-year period under review. This shows that the perception of MAAIF as the dominant agency responsible for PMA implementation is incorrect, and that successful implementation of the PMA requires close collaboration and co-ordination across a large number of different government agencies.

Table 5 provides a breakdown of project (development) spending over the three year period by the seven PMA 'pillars' plus an additional category for projects that address policy and institutional reforms and which are cross-cutting in their implementation. Just three pillars account for 75 percent of PMA project expenditure – infrastructure (30%), extension (29%), and natural resource management (17%).

Table 5 Share of project spending by PMA pillar 3 yrs, 2001-2003 (Ush bn)

Pillars	Actual	
	Ush bn	Share
1. Research & technology devt.	51.4	10%
2. Agricultural advisory services	142.1	29%
3. Rural finance	6.2	1%
4. Agro-processing and marketing	2.0	>1%
5. Agricultural education	13.5	3%
6. Natural resource management	82.8	17%
7. Infrastructure	149.2	30%
8. Other - institutional & policy reform	49.4	10%
	496.6	100%

Source: MoFPED database on devt spending / Public Investment Plan / Background to the Budget

The evaluation found disbursement rates on PMA projects to be relatively low, at 54 percent of the levels budgeted. Disbursements rates vary considerably by line agencies, PMA pillars, and funding sources. In relation to disbursement by pillars the highest level of disbursement is for policy and institutional reform (77%), perhaps reflecting the importance that has been attached to this area of work. Disbursement rates are lowest for the marketing (14%) and rural finance (24%) pillars. To some extent the low disbursements can be attributed to the relatively large share of PMA project spending financed by donors, for which projected expenditure is over-optimistic and releases are erratic.

The Non-Sectoral Conditional Grant (NSCG)

The Non-Sectoral Conditional Grant (NSCG) was introduced in 2000 to support PMA implementation at local government (district) level. At the time of the evaluation the NSCG was received by only 24 districts (around one-third of total districts), although there are plans to expand coverage to 33 additional districts. Expenditure on NSCG activities increased from US\$ 2bn in 2000 to US\$ 5bn in 2002 and remained at this level until 2005 despite the planned expansion to 33 new districts. The level of funding of the NSCG is too low to allow significant investment activities to take place at sub-county and parish levels, thereby limiting the potential impact of the grant.

Over the four years to 2003 nearly 65 percent of NSCG funds have been allocated to agriculture²³. Within agriculture, half of the funds were used for the purchase of inputs for production (seeds, fertilisers, etc). The remainder was split between the construction of physical assets for production (irrigation, fish ponds, dip tanks etc), and capacity building (farmer training). Other areas for NSCG spending include infrastructure (16%) and health and sanitation (4%).

Reviews of the NSCG indicate weak community participation in decisions over how funds are allocated and suggest that local political leaders and technicians have the major influence over the identification and selection of NSCG projects. District visits by the PMA evaluation team confirmed this and the team noted the need to: (i) build capacity for planning amongst local communities; and (ii) ensure greater transparency to communities in how NSCG funds are used.

²³ Review of the use of the NSCG by local governments, 2000/1 – 2003/4, Independent Consulting Group (January 2005)

The evaluation found that while many NSCG investments have strong public good characteristics and benefit the wider community including the poor (e.g. public latrines, water storage facilities etc), a major share of the NSCG continues to be used for the distribution of crop planting material and improved livestock breeds to individual farmers for demonstration or multiplication purposes. Recipients ('caretakers') of these inputs are chosen by extension workers or political leaders, and tend to be amongst the better-off members of the community. While this may be justified on the basis that better-off farmers are most able to manage the assets provided to communities, it is important that measures are taken to ensure that the benefits are spread as much as possible throughout the community and that the demonstration and multiplication objectives are achieved.

4. Returns to agriculture investments

No detailed analysis is available on the returns to agriculture investments. The PMA evaluation made a tentative impact assessment of PMA investments, based upon district visits and a household survey, as well as independent reports including the 2005 mid-term evaluation of NAADS.

The principal findings are that:

- Overall progress is being made towards achieving PMA objectives, but that it is difficult to attribute benefits to specific investments.
- There is evidence that where technology is appropriate and adopted positive results are being achieved, and that in some districts poor farmers are being targeted;
- Spending on agricultural research and extension has improved agricultural productivity substantially (for each marginal shilling invested, 12 shillings is returned) and has the largest impact on poverty reduction, followed by feeder roads (7 shillings) and education (3 shillings) (IFPRI, 2004);
- However, the research undertaken does not always correspond to the needs of poorer farmers, women, or specific groups such as the HIV/AIDS affected. Meanwhile, services provided through the traditional extension service (in non-NAADS sub-counties) provides a more diverse range of technologies and is more responsive to the needs of poor farmers;
- Effectiveness of NAADS and the NSCG pillars is undermined through: (i) limited resources which are also spread too thinly (particularly for the NSCG); (ii) poor quality of private service providers; and, (iii) the limitations of the enterprises selection process; (iv) weak participatory planning processes (especially for the NSCG).

5. Prioritisation of PMA activities through the budget process

Uganda's first poverty eradication action plan (PEAP) was prepared in 1997, before the PRS initiative was launched, as the over-arching document setting out Government poverty reduction strategy. It was subsequently updated in 2000, with far broader consultation, including a participatory poverty assessment to ascertain the views of the poor themselves. Since it was established in 1991/92, the combined Ministry of Finance Planning and Economic Development (MFPED) has been, for most of the period, the engine of Ugandan recovery and development (Foster and Mijumbi, 2002).

MFPEd have taken the leading role in the planning and budget process, but responsibility for approving the PEAP and each annual budget which helps implement it rests with the Cabinet, and ultimately the President. MFPEd authority depends on maintaining Government approval and, as in other African case study countries, there is a continuing concern that neo-patrimonial forces could influence the budget process and expenditure patterns (Robinson, 2006; Mwenda and Tangri, 2005).

The budget process has been progressively reformed to enable resources to be concentrated on Government priorities. The initial focus on controlling aggregate spending in line with macroeconomic constraints was succeeded by the introduction of medium-term expenditure ceilings, initially for central departments, but extended in 2000-01 to encompass local Government. Donor flows are also increasingly being brought within the budget process, including project support, and this encouraged a move towards general budget support. The MTEF process is considered to be one of the two most successful in sub-Saharan Africa (Evans and Holmes, 2004). The budget planning process has become remarkably transparent, with open discussions and presentations to which parliamentarians, NGOs, the media and donors are invited, and at which the priorities and plans of the medium term expenditure framework are presented and justified.

There has been a progressive movement away from incremental budgeting towards a stronger focus on Government objectives. This has been helped by the formation of sector working groups, involving donors and other stakeholders alongside sector officials. Sector strategies and sector expenditure plans have been prepared under the leadership of sector ministries, but involving joint teams with official and donor representation. Early sector strategies benefited from preferential budgetary treatment and earmarked sector budget support under the Poverty Action Fund (PAF), which was created as a transparent instrument for disbursing HIPC funds for pro-poor objectives (Lister et al., 2006). However, this preferential treatment had stopped by the time the PMA, which is in effect the agricultural sector SWAp, started in 2001. Thus although some line ministries held a perception that prioritising PMA activities within their budgets would result in additional funding, experience has demonstrated this not to be the case. Indeed, although income poverty reduction has always been an objective of the PEAP, the dialogue around agriculture took off later than for the social sectors and only now is being accompanied by significant increases in public resources to the sector (Lister, et al., 2006).

Reporting on agriculture, and PMA expenditures more broadly, is weak. The PMA evaluation found that there was no mechanism to ensure that PMA priorities are adequately captured within the budget process. For the first time the 2005-06 budget guidelines included a requirement for sector working groups to identify resources allocated to PMA activities. However, a review of budget submissions found that the submissions did not conform to the budget guidelines and that several line ministries and agencies were not fully aware of the PMA undertakings agreed with them during the PMA Joint Annual Review, 2004.

The evaluation proposed a strengthening of the budget process to ensure that PMA undertakings are clearly specified in the budget guidelines and that MoFPED review submissions to check that they comply with the budget guidelines and to implement sanctions as appropriate for non-compliance with the guidelines (for example a reduction in sector budget allocations). The evaluation also highlighted the need to improve the quality of information on PMA activities and impact that feeds into the budget process.

References

- Evans, A. and Holmes, M. (2004). A Review of Experience in Implementing Medium Term Expenditure Frameworks in a PRSP Context: A Synthesis of Eight Country Studies London: ODI.
- Fan, S., and N. Rao, (2003). Public Spending in Developing Countries: Trends, Determination and Impact. EPTD Discussion Paper No. 99. IFPRI.
- Fan, S., X. Zhang, and N. Rao (2004). Public Expenditure, Growth, and Poverty Reduction in Rural Uganda. . DSGD Discussion Paper No. 4. IFPRI
- Foster, M and Mijumbi, P. (2002) How, When and Why does Poverty get Budget Priority? Poverty Reduction Strategies and Public Expenditure in Uganda. ODI, Workin Paper No.163, April 2002.
- Lister, S., Baryabanoha, W., Steffensen, J. and Williamson, T. (2006) Joint Evaluation of General Budget Support 1994-2004: Uganda Country Report. IDD, University of Birmingham, May 2006.
- Mwenda, A.M. and Tangri, R. (2005) Patronage politics, donor reforms and regime consolidation in Uganda. African Affairs, 104 (416): 449-467
- Oxford Policy Management)(1998) Uganda, Agriculture Public Expenditure Review, 1998
- Oxford Policy Management (1999) Uganda Agriculture Sector Investment Audit
- Oxford Policy Management (2002) Plan for Modernisation of Agriculture, Public Expenditure Analysis.
- Oxford Policy Management (2005) A Joint Evaluation of Uganda's Plan for the Modernisation of Agriculture
- Robinson, M. (2006) The Political Economy of Governance Reforms in Uganda Discussion Paper 386, May 2006, Institute for Development Studies, Sussex.

Zambia Case Study

1. Agriculture expenditure trends and patterns.

Total agricultural expenditure up to 2000

The 2001 Public Expenditure Review (World Bank, 2001) noted that there were no complete and consolidated data on agricultural expenditure for Zambia. This was due to an absence of records of donor contributions to the sector and limited reporting of capital expenditures. What information is available for the period 1996-2000 is shown in Table 1. Although government financial reporting is improving (see later), this situation of incomplete data for government and donor expenditure and the lack of readily available expenditure data still persists.

There is general agreement that in Zambia, as in many other African countries, the share of government expenditure devoted to agriculture fell after the structural reform process began, particularly after 1993 when more concerted attempts at agricultural liberalisation began and the Government reduced its role and budget for agriculture. Ministries such as agriculture experienced a systematic reduction in allocations and disbursements determined by reallocations to non-economic sectors, protection of 'social spending' and ad hoc shortfalls in budget allocations due in part to the use of a cash budgeting system (World Bank, 2001) leading to a deterioration in capital expenditure and public service delivery. Over the period 1995-99 the Ministry of Agriculture and Food (MAFF) (now the Ministry of Agriculture and Cooperatives, MACO) only received 73.0 percent of its initial budget allocations (Table 1) because ministries such as MAFF with a traditionally higher ratio of capital to wage and recurrent expenditure were most adversely affected by the cash budget system (World Bank, 2001). However, it is difficult to determine the extent to which these shortfalls in domestically-financed expenditure were offset by donor expenditure because of the lack of any systematic recording of donor spending other than that channelled through the Ministry of Finance (World Bank, 2001).

Table 1. Public Agriculture Budget Allocation and Actual Expenditures (Kw m)

	1996	1997	1998	1999	2000 (est)
A. Estimated Budget Allocation					
1. Government					
a. Recurrent	29,146	28,362	34,189	38,197	37,176
b. Capital		27,632	6,980	4,636	3,628
<i>Sub-total</i>	<i>29,146</i>	<i>55,994</i>	<i>41,169</i>	<i>42,833</i>	<i>40,804</i>
2. Donor					
a. Recurrent	16,435	24,058	8,507	59,864	51,500
b. Capital	41,810	30,635	24,412	20,968	24,886
<i>Sub-total</i>	<i>58,245</i>	<i>54,693</i>	<i>32,919</i>	<i>80,832</i>	<i>76,386</i>
Grand Total	87,391	110,687	74,088	123,665	117,190
B. Actual Expenditure					
1. Government					
a. Recurrent	19,590	31,118	29,503	35,753	20,388
b. Capital	n/a	n/a	614	n/a	n/a
2. Donor					
a. Capital and recurrent	11,800	32,144	37,274	37,999	n/a

Source World Bank (2001) Table 9.1

Since 1994 the share of the agriculture sector in aggregate public expenditure has been erratic (World Bank, 2001). From 10.6 percent in 1994 it fell to 2.5 percent in 1996, rose to 6.0 percent in 1997 and declined to 3.1 percent in 1998.

The role of agricultural expenditure

Historically, the structure of government expenditure on agriculture has been related to Zambia's dependence on copper mining as a major source of GDP and export earnings and the importance placed on providing cheap food for the large urban population through subsidised production and distribution of maize. In Zambia's case, these expenditures were a major reason for substantial budget deficits and macroeconomic instability (Jansen and Muir, 1994). In 1992, the incoming Chiluba government reduced the real size of the agricultural budget by nearly 50 percent (Govere et al. 2007). Nevertheless, the Government established a Food Reserve Agency (FRA) in 1995 *inter alia* to administer the national food reserve but, outside its original mandate, it also imports fertiliser for distribution to smallholders on subsidised credit terms. The FRA has been funded through budgetary allocations and external borrowing guaranteed by government. In some of the years between 1995 and 2000, the budgetary allocation for FRA reached 30 percent of the total agricultural sector allocation. Due to low repayment rates, government eventually has to pay its contingent liability for borrowed funds and in most cases this expenditure crowds out the agriculture budget (World Bank, 2001).

As will be shown later (Table 5), despite evidence-based analysis questioning the effectiveness of continuing fertiliser subsidy and credit programmes (Smith et al., 2000; FSRP, 2002), a high proportion of budget allocations and expenditures continue to be spent on fertiliser subsidies and maize price support (World Bank, 2006)

Recent trends in budget allocations and actual expenditure on agriculture

For the period from 2000 information has been obtained mainly on budget allocations together with more limited information on actual expenditure to agriculture. However, the considerable annual variations between allocations and actual expenditure noted in the World Bank (2001) study persisted until very recently and this makes undue reliance on budget allocations as an indicator of actual expenditure problematic.

Table 2. Budget allocations to agriculture (nominal Kwacha bn), 2001 – 2006.

	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 & social relief services	33	21	21	34	62	32
Allocation to provinces & districts	0	0	8	7	7	7
Total agriculture	194	205	499	343	464	650
% of agric allocation in national budget	4.5	4.0	8.2	5.3	5.6	6.3

Source: Govere et al (2007) Table 2 using data from MACO (Budget Unit), 2006

Note: ^a Fertilizer Support Program and Food Reserve Agency are included under these programmes

Budget allocations to the agricultural sector 2001 to 2006

The budget allocations to MACO and to other ministries to support the agricultural sector (agricultural infrastructure and social relief services) in nominal Kwacha terms over the period 2001 to 2006 are shown in Table 2. This shows that there was a substantial rise in the share of the national budget allocated to agriculture in 2003 to 8.2 percent from 4.0 per cent in 2002 but the allocation fell back to between 5.3 and 6.3 percent in 2004 to 2006.

Table 3 shows the average share and range of each major component of the budget allocation over the period 2001 to 2006. During these years Poverty Reduction Programmes have accounted on average for almost one half of the budget allocation to the agricultural sector, varying between one-third and two-thirds of the allocation. Donor funded agricultural development programmes have been the second most important component averaging 18 percent of the allocation with personnel emoluments averaging 12 percent. The other 4 components have each averaged less than 10 percent of the allocation.

Personnel emoluments. In real terms, allocations for personnel emoluments rose by over 140 percent between 2001 and 2004. It is not clear whether this growth was due to growth in the size of public agricultural work force or increases in real wages and benefits. (Govere et al, 2007). Since 2004, the allocations have declined in real terms due to the freezing of wage increases and new appointments. Having now attained the HIPC completion point, all public service positions are expected to be filled and salaries increased and the amounts allocated to personnel emoluments are expected to increase. Whether these improved remuneration and incentive packages prove attractive enough to retain key staff remains unknown (Govere et al, 2007).

Table 3. Budget allocation to agriculture (real Jan 2006 Kwacha bn), 2001 – 2006.

	Average share %	Range %
Personnel emoluments	12	5.3 – 20.7
Recurrent departmental charges	7	5.0 – 9.9
Grants and other payments	2	0.6 – 2.6
Poverty Reduction Programmes/HIPC ^a	48	33.3 – 69.6
Capital expenditure	4	0 – 19.7
Donor funded (agricultural development) programmes	18	10.7 – 32.5
Agric. infrastructure & social relief services	9	4.2 – 19.9

Source: Govere et al (2007) Figure 3 and Table 3 using data from MACO (Budget Unit), 2006

Notes: *Personnel emoluments* (PE) cover salaries, wages and pension contributions to all filled positions. *Recurrent departmental charges* (RDCs) are expenditures which support the operations of MACO staff covering fuel, spare parts, stationery, field allowances and supplies. *Poverty Reduction Programmes* (PRPs) support farmers in crop and livestock production and marketing. The Fertilizer Support Programme and Food Reserve Agency are included under PRP/HIPC. *Capital expenditures* support civil works and purchase of movable and immovable assets. *Agricultural development programs* are investments to the sector through loans and grants. *Agricultural infrastructure and agricultural social relief services* are channelled through other ministries.

Recurrent departmental charges. Between 2001 and 2006, the share of RDCs in the total agricultural budget averaged 7 percent (Table 3) but the ratio of RDC to PE has fallen from 1.28 in 2001 to 0.26 in 2004 and 0.47 in 2006. Govere et al. (2007) state that the implication is that public agricultural employees have fewer resources at their disposal making it difficult for scientists and specialist staff of MACO to carry out experiments or go into field to conduct trials and demonstrations if transport and requisite equipment are in short supply. They claim that this has undoubtedly

crippled the public agricultural technical system and, as operational funds are the main driver of productivity change through knowledge generation and sharing with all stakeholders, the efficiency of the workforce has declined during this period.

Capital expenditures. Table 2 indicates that virtually no funds have been allocated for capital expenditures for MACO since 2002 from Government of Zambia funds. As Govereh et al. (2007) state, it is no surprise that effectiveness of employees is limited given that equipment and buildings are run down and are not being replaced. Research and training institutions are dilapidated and laboratory equipment in research stations is obsolete and in most cases non-functioning. Supportive infrastructure such as office space, laboratories, institutional and camp housing at service delivery centres 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 government may not purchase new assets every year, it should nonetheless allocate enough resources each year to cover depreciation of existing capital assets.

Table 4. Donor-funded programmes (real 2006 Kwacha bn), 2001 – 2006

Agricultural Development Programmes	2001	2002	2003	2004	2005	2006
Multilateral programmes						
Southern Province Household Food Security Program (IFAD)		8				
Smallholder Enterprise and Marketing Program (IFAD)		7		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)				1	5	1
Small and Medium Enterprise Trade and Investment (ADF)						4
Smallholder Agric. Production and Marketing Support (ADB)						26
Agriculture Development Support Program (WB)				3	2	17
Agricultural Diversification and Food Security Project (EU)						12
Smallholder Livestock Improvement Program (IFAD)						7
Kwando-Zambezi Tsetse and Tryps Eradication (ADB)						12
Economic Diversification (ADB)			46			
Bilateral programmes						
Participatory Village Dev in Isolated Areas (JICA)				1	1	2
Luapula Agricultural & Rural Development (Finland)				8		16
Crop monitoring (DFID)						1
Luapula Food Security and Nutrition (Belgian)					1	5
Agriculture Support Program (SIDA)						35
Empowerment of Rural Communities (JICA)						2
Agricultural Policy and Monitoring Project (SIDA)						1
Government of Zambia						
Zambia Cooperative Federation (ZCF)		5				
Smallholder Irrigation and Water Use Program		1				1
Animal Husbandry Credit Revolving Fund		7				
Small Scale Farmer Commercialization				13		
TOTAL	46	66	90	78	53	211

Source: Govereh et al. (2007) Table 4 using information from MACO (Budget Unit), 2006

Donor funded (agricultural development) programmes. Although the Government of Zambia allocates very few funds for capital expenditure in the agricultural sector, investment does occur through loans to the Government of Zambia from multi-lateral agencies and grants from bilateral donors covering both recurrent and capital expenditure for agricultural development programmes. On average these accounted

for 18 per cent of the total funds allocated over the 2001 to 2006 period, but as Tables 2 and 3 indicate, there was a considerable variation in the allocations on an annual basis. Allocations for 2006 increased dramatically because of a number of new projects and increased spending for existing projects. The specific programmes are listed in Table 4. Government also co-funds some of these activities although its overall share is barely above 5 percent. The programme activities include capacity building of smallholder farmers and MACO staff, infrastructure rehabilitation, e.g., feeder roads, camp and farmer training centre facilities and some elements of agricultural finance. The majority of these programmes 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, a few have been running for the past two or more years and several new projects have started in 2006.

Goverehe et al. (2007) comment:

"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 in-coming 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".

Poverty Reduction Programmes. There is a strong link between poverty increases in Zambia and a stagnant economy (Goverehe et al 2007). To reverse these poverty trends, government has prioritized spending for poverty reduction programmes and, within the agriculture sector, real expenditure on programmes classified as poverty reducing has risen by 90 percent in real terms between 2001 and 2006. This rise follows the commitment in the PRSP (World Bank, 2002) and the draft Fifth National Development Plan to make agriculture a priority area. This was reinforced by a commitment to allocate a proportion of debt relief to agriculture under the HIPC initiative. It is planned that this will continue under the Multilateral Debt Relief Initiative (MDRI) (IMF, 2006).

Over the past five years, PRP funding has been allocated to support out-grower schemes, farm block and land development, livestock restocking and disease control, and agricultural research and extension projects. However, the vast majority of funds under this component (over 80 percent since 2004) has been allocated to the Fertilizer Support Programme, which provides subsidized fertilizer to small farmers, and the operating costs of the Food Reserve Agency (Table 5).

Goverehe et al. (2007) state:

"Although other programmes have continued to receive funding, their share of the funds has dwindled drastically. 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. Targeting PRP expenditures towards 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 et al., 2004)".

Table 5. Budget allocations to PRS Programmes, (real 2006 Kwacha mn), 2001 – 2006

Poverty Reduction Programmes (PRPs)	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 Centres Rehabilitation	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

Source: Govereh et al. (2007) using information from MACO (Budget Unit), 2006

^a this amount was allocated for irrigation development

^b 72 percent of this amount was a grant from World Food Program and GRZ contributed the balance for the purpose of emergency 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

Agriculture infrastructure and social relief spending through other ministries. Part of the sector's public budget is channelled 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 inputs services, electrification, construction of roads, dams and land development (Table 6).

Table 6. Agriculture programs through other ministries (real Kwacha mn), 2001 – 2006.

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)			6	1	3	
Rehab & Construction of Earth Dams (Energy and Water)		18	10	2	4	4
Land Alienation and Farm Block Development - (Lands)	2	2		3	2	1
Manshya/Serenje Farm Block Road (Works and Supply)				1	2	3
Drought Emergence Recovery Project					20	
Financial restructuring of NCZ					3	6
Post Harvest Survey – CSO					2	1
Fish catch assessment survey – CSO						1
Procurement of food security packs – OVP					7	
Procurement of 2 nd round of vaccines – OVP					2	
Community Dev & Social Services – Farmer Support Prog.						1
TOTAL	71	37	31	43	66	32

Source: Govereh et al. (2007) using information from MACO (Budget Unit), 2006

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 (Table 5). As MACO is considered to be concerned with commercial agricultural activities, other activities such as safety nets, drought recovery and emergency relief support are channelled through the Ministry of Community Development and Social Services and the Office of the Vice President.

The main programme under this category is the Food Security Pack that distributes free seeds for maize and legumes and cuttings for cassava and sweet potatoes. Govereh et al. (2007) state that, despite the notable role the programme has played in the expansion of cassava and sweet potato production nationwide, support from government has declined in real terms. They further state that there is raging debate as to whether these safety net and relief programmes 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.

Actual agricultural expenditure 2001 to 2006.

The discrepancy between budget allocations to the agriculture sector and actual expenditure noted by the World Bank (2001) continued into this decade. Actual expenditures were only 55 and 61 percent of budget allocations in 2000 and 2001 respectively. Then in 2002 and 2003, actual expenditure exceeded the original budget allocation by 12 and 19 percent respectively (Govereh et al., 2007, Table 8). It would appear that in both of these years total expenditure was inflated by emergency maize imports following drought. Again, in 2006, disbursed funds through the Food Reserve Agency exceeded the budget allocation of Kw 50m. by Kw 200m (see Table 5). The tendency is for expenditure on other components of the budget allocation (other than personnel emoluments) to be squeezed in these circumstances.

Table 7 Recurrent budget provision and funding to MACO (nominal Kw Bn)

Budget Line	2004				2005			
	Budget		Actual		Budget		Actual	
	Kw	% budget	Kw	% disbursement	Kw	% budget	Kw	% disbursement
Personnel emoluments	68	28.7	57	83.8	75	21.8	74	98.7
Operations	19	8.0	10	52.6	44	12.8	39	88.6
Grants / other payments	9	3.8	6	66.6	4	1.2	4	100.0
Sub-total	96	40.5	73	76.0	121	35.2	117	96.7
PRS /HIPC:								
Fertiliser Support	70	29.5	96	137.1	140	40.7	141	100.7
Food Reserve/ marketing	47	19.8	47	100.0	59	17.2	59	100.0
Other progs & grants	24	10.1	18	75.0	22	6.4	21	95.5
Sub-total	141	59.5	162	114.9	221	64.2	221	100.0
Total	237	100.0	235	99.2	344	100.0	338	98.3

Source: Govereh et al., 2007

Note: The decision not to uniquely identify capital expenditure in the sector ministry expenditure reports may give a misleading impression of the overall balance of support to the agricultural sector.

A comparison of budget allocations and actual disbursements for recurrent budget components through MACO (i.e. excluding capital expenditure, donor funded programmes and expenditure through other ministries) is available for 2004 and 2005 (Table 7). This indicates that financial management reforms (see later) may be having an effect because total disbursements were close to allocations for these two years. However, in 2004 a 37 percent overspend on the Fertiliser Support Programme was accommodated by reduced releases to nearly all other components. In particular, recurrent departmental charges (operational funds) were substantially reduced below the limited amount available in the original allocation, which must have serious negative consequences for the operational efficiency of MACO.

Regrettably, Govereh et al (2007) does not contain information on the actual disbursement of funds notionally allocated to donor-funded programmes, which is an

important component of the budget allocation to agriculture. Moreover, actual spending figures only become available after a two-year lag (Govere et al. 2007), which makes the ability to track and analyse actual expenditure in the agricultural sector extremely difficult.

Future funding for agriculture

The development priorities in the recently announced Fifth National Development Plan (in effect, a follow-on to the PRSP), are given as:

- Irrigation
- Agricultural infrastructure and land
- Research – crops, livestock and fisheries
- Extension – crops, livestock and fisheries
- Animal health (FSRA, 2006).

Substantial funds are being made available under the MDRI debt relief initiative and these are being channelled towards the agricultural sector and the priorities highlighted in the Fifth National Development Plan – priorities that are at odds to those that the Government has chosen to support in its budget allocation to agriculture in recent years. For instance,

“MDRI debt relief from the Fund will make it possible to increase spending on priority agriculture and infrastructure projects identified in the National Development Plan 2006-10. The authorities intend to use these resources in line with annual debt-service savings. In 2006, the US\$18 million in debt-service savings from the cancellation of obligations to the Fund will be spent on irrigation development and livestock disease control.” (IMF, 2006).

The World Bank (2006) has also recently announced the provision of an IDA Sectoral Investment Grant of US\$37.2 for an Agricultural Development Support Project to support increased commercialization of smallholder agriculture through improved productivity, quality and efficiency of value chains where smallholders participate. The project would: (i) provide resources for working capital and term lending for capital investments in agricultural production and marketing; (ii) develop innovative business linkages between smallholders and other actors in the target supply chains; and (iii) target investments in public goods and in key public sector functions. The project's central aim is to improve smallholders' access to markets and the competitiveness of their agricultural commodities. The project would, therefore, focus on high potential agricultural areas and will adopt a value chain approach to make sure that all levels of the chains are operating efficiently and increasing value added.

The Bank states that because of its convening power as a multilateral institution, various donors active in smallholder commercialization in Zambia have agreed to harmonize within a framework to reduce possible duplication and improve the development impact of their interventions. For example, the African Development Bank (AfDB) is focussing its support on smallholder capacity building, provision of extension services and some public good investments. The International Fund for Agricultural Development (IFAD) is focussed on creating an enabling environment for rural credit through supporting rural finance reform. The proposed Bank operation is focussed on provision of input and trade finance, and term investments

2. Returns to agriculture investments

It is frequently claimed that returns to resources spent on subsidies are often negative whereas investing in research and extension and other productive areas such as irrigation yield positive and high returns (FSRP, 2006). During the 1970s and 1980s, the Zambia agricultural research system, principally represented by the Soils and Crops Research Branch (SCRB) of MAFF (later MACO) expanded with the aid of significant donor support and built an impressive record of achievements in new varieties and farming systems research. In the 1990s real research expenditure plummeted as support from donors declined without compensatory increases from the government (Elliott and Perrault, 2006). Over the period 1994 to 2000 only 5.3 percent of the agricultural budget was allocated to research (World Bank, 2001). This was accompanied by substantial year-to-year fluctuations and gaps between approved budgets and disbursements. Moreover, SCRБ's operational expenditure was heavily dependent on project-based support from a few donors and if a project closed the affected research unit suffered significantly.

Govere et al. (2007) consider that:

“This imbalance [between PE and RDCs] has left agricultural researchers, extension agents and other specialist service providers with increasingly little resources to operate with. 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 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”.

The apparent neglect of agricultural research may reflect:

- Short-termism and response to the vociferous lobby for the continuation of fertiliser credit and maize market stability;
- Lack of political pressure from farmers for increased research expenditure perhaps due to the absence of strong evidence of the benefits of public sector research expenditure.

However, the low priority given to government-controlled research in part also reflects bilateral donor preferences in recent years to promote private sector developments or to channel funds to projects managed through semi-public trusts (Elliott and Perrault, 2006). There are various reasons advanced for this switch:

- Trusts provide an alternative funding vehicle for donors concerned both about sectoral approaches to funding and the high level of overhead expenditure in MACO HQ compared to expenditure in the field;
- Trusts may permit a higher degree of commercialisation than is possible in the public sector and provide a politically acceptable method of achieving this;
- Trusts may allow the government to transfer physical assets and human resources into more cost-effective arrangements.

There are a variety of arguments for and against these developments but there is currently a lack of empirical evidence relating both to the actual rates of return to this 'mixed' research pattern and on the total level of expenditure on agricultural research in Zambia.

3. Agriculture budget processes and political economy issues.

All stages of the public expenditure management and budgetary process in Zambia have been weak (World Bank, 2001, 2004). The major problems include:

- Poor public expenditure management and financial accountability;
- The laws and institutions for public expenditure and accountability are weak;
- Even where legal provisions are appropriate, enforcement and accountability has been weak;
- Ineffective and unrealistic budgeting has undermined service delivery and growth;
- Budget execution is weak. This includes:
 - Cash budget and unpredictability of budget releases
 - Weak enforcement of financial regulations
 - Lack of commitment control
 - Weak public procurement system
- Effective tracking of spending and transparency have been undermined by the current systems for financial management, which are manual or rely on outdated technology.

With regard to the agricultural sector, the 2001 Public Expenditure Review noted:

- There appears to have been little discussion between MACO and the Budget Committee regarding priority areas for expenditure;
- Zambia has operated a cash budget system, which in theory should prevent fiscal deficits but in practice has led to expenditure squeezes particularly towards year ends that have mainly affected operational expenditures. Moreover, it has not prevented budget overspends financed by non-payment of bills;
- There has been marked virements within the MACO budget with actual funding often varying widely from budget allocations.

It is only in very recent years that steps have been taken to improve the budgetary process and link it more closely to policy initiatives, such as the PRSP that was launched in 2002. A major incentive to engage in this process was provided by the substantial funds available under successive Poverty Reduction and Growth Facilities (PRGFs) and the Enhanced Highly Indebted Poor Country's (HIPC) Initiative. A major reform programme, the Public Expenditure Management and Financial Accounting (PEMFA) Reform was commenced in 2003 together with the development on an Integrated Financial Management and Information System (IFMIS) to comply with international accounting systems and a Commitment Control System (CCS). This whole process is closely monitored by the IMF as conditionality for tranche releases under the PRGF.

Zambia's first MTEF for 2004-06 was developed after the PRSP and used the Activity Based Budgeting (AAB) system to provide estimates for ministries and public sector agencies. The 2004 budget was formulated in the context of this MTEF, thus placing the annual budgeting cycle in a more strategic context. All spending agencies used the AAB procedures to explicitly link their budget allocations to service delivery and outputs. This made the budgetary process more transparent and provides more information to improve accountability. This whole fiscal and budgetary reform process is still ongoing.

Until recently, budget formulation has been shrouded in an aura of secrecy (Mutesa, 2005). The introduction of the Medium Term Expenditure Framework (MTEF) is aimed at overcoming this problem by providing information on the resource envelope available for spending in the medium term and also guiding the allocation of budget resources to government policy priority areas. Closely related to the MTEF concept is stakeholder participation in budget formulation which is meant to take on board local priorities. The government has embarked on annual district and provincial consultations during budget formulation with stakeholder organisations. However, it would appear that provincial planners pay little heed to district discussions when formulating budget proposals (Mutesa, 2005). There are efforts to improve consultation and coordination between the provincial and district administrations. This is being done through linking the District Development Coordinating Committee (DDCC) and the Provincial Development Coordinating Committee (PDCC). There are, however, still some outstanding problems relating to: the quality of the chairs, who are political appointees; poor communication between line ministries and the committees and weak representation by stakeholders (Mutesa, 2005).

An additional measure increasing stakeholder participation in the budget process was the creation of the Highly Indebted Poor Countries (HIPC) tracking and monitoring team that comprised several civil society organisations and was established by a memorandum of understanding with the government on May 9, 2003 to track and monitor the utilisation of HIPC resources with a view to foster a spirit of transparency and accountability. However, its activities were suspended in March 2004, perhaps because it revealed corruption in the use of HIPC funds (Mutesa, 2005).

Mutesa (2005) further states that although parliament's role is to discuss and approve the budget, either intact or with amendments, in practice it does not have effective powers to amend the budget. Consequently, estimates are either accepted or rejected as a whole. Furthermore, the fact that the budget is adopted almost two months after the commencement of the government fiscal year means that in practice much expenditure is allocated on the basis of presidential warrants pending the approval of the budget by the legislature. Critics also decry the format and style of presentation of the budget which is said to preclude many Members of Parliament from making meaningful contributions (Mwanawina et al, 2001).

References

- Alston, J. M., Chan-Kang, C., Marra, M. C., Pardey, P. G. and Wyatt, T. J. (2000). A Meta-analysis of Rates of Return to Agricultural R&D. IFPRI Research Report No. 113. International Food Policy Research Institute, Washington, DC.
- Byerlee, D., and Eicher C.K., (eds). (1997). *Africa's emerging maize revolution*. Boulder, CO: Lynne Rienner.
- Elliott, H and Perrault P T (2006) *Zambia: A Quiet Crisis in African Research and Development* Chapter 9 in Pardey, P.G., Alston, J.M., and Piggott, R.R. (eds) (2006) *Agricultural R & D in the Developing World: Too Little, Too Late?* John Hopkins University Press/ IFPRI.
- Evenson, R. E., (2001). "Economic Impacts of Agricultural Research and Extension" in Gardner, B. L. and Rausser G. C. (eds.) *Handbook of Agricultural Economics*, Amsterdam: North Holland/Elsevier.
- Fan, S., Zhang X. and Rao. N. (2004). *Public Expenditure, Growth and Poverty Reduction in Rural Uganda*. Development Strategy and Governance Division (DSGD) Working Paper No. 4. IFPRI.

Food Security Research Project (2002) Development of Fertiliser Marketing in Zambia: Commercial Trading, Government Programs and the Smallholder Farmers Working paperno.4, May 2002

Food Security Research Project (2006) Resource Allocation for Agriculture. Proceedings of a Presentation to the Parliamentary Committee on Agriculture and Lands and Economic Affairs and Labour, February 1, 2006

Govereh, J., Shawa, J.J., Malawo, E. and Jayne, T.S. (2007) Raising the Productivity of Public Investments in Zambia's Agricultural Sector. Food Security Research Project Working Paper Publication #20, Lusaka, Zambia (draft).

IMF (2006) Zambia: Fourth Review of the Three-Year Agreement under the Poverty Reduction and Growth facility (PGRF), Request for Modification of Performance Criteria and Financing Assurance Review. IMF Country Report No 06/263 June 27, 2006.

Jansen, D. and Muir, K. (1994). 'Trade, exchange rate policy and agriculture in the 1980s'. In Rukuni, M and Eicher, C. (eds) Zimbabwe's Agricultural Revolution, Harare: Univ. Zimbabwe Press.

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

Mutesa, F. (2005) The nexus between public resource management reforms and neopatrimonial politics. Draft contribution for the Conference on 'Political Dimensions of Poverty Reduction: The Case of Zambia'. Lusaka, Mulungushi Conference Centre, March 9-11 2005.

Smith L.D, Chinene, V.R.N, van der Linde, M., Muthanna, T., and Riley, W.D. (2000) Review of the 1999/2000 Food Reserve Agency Fertiliser Credit Programme, Zambia Final Report September 2000, Netherlands Economic Institute.

World Bank (2001) Zambia: Public Expenditure Review. Report No. 22543-ZA.

World Bank (2002) Zambia: Poverty Reduction Strategy Paper and Joint Staff Assessment Report No. 24035-ZA April 23, 2002.

World Bank (2006) Agricultural Development Support Project. Project Appraisal Document April 20, 2006.

Vietnam Case Study

1. Introduction

Over the last twenty-five years agriculture has provided a significant contribution to growth and poverty reduction in Vietnam. Agriculture currently contributes around one-fifth of GDP, one-third of exports, and two-thirds of employment. The benefits of agricultural growth have been widely distributed, with the share of rural households below the poverty line falling from 66 percent in 1993 to 36 percent in 2002 (GoV/World Bank, 2005, World Bank, 2005).

Strong performance in agriculture followed the '*doi moi*' market-based reforms of the 1980s. These reforms removed policy and institutional constraints and increased the availability of productive resources (e.g. through land reform), thereby providing an enabling environment to shift agriculture out of subsistence and towards commercial and export-oriented production. Sustaining strong performance in agriculture in the future requires carefully targeted public investments and an effective framework of support services. Although user fees can be introduced in some areas, public funding will continue to be required for most agricultural services.

2. Agriculture expenditure trends and patterns

Total spending

The best source of recent data on agricultural spending is provided by the joint GoV / World Bank Public Expenditure Review and Integrated Fiduciary Assessment (PER-IFA), 2005. This shows that in recent years agriculture has accounted for 5-6 percent of total government spending (Table 1). This is low given the priority attached to agriculture in the Five-Year Plan and the Comprehensive Poverty Reduction and Growth Strategy (CPRGS). It is also low compared to other countries in the region – for example, China, India and Thailand which allocate 10-15 percent of the state budget to agriculture.

Table 1 Agriculture spending (nominal VND bn)

	2000	2001	2002
Agriculture	5,804	7,420	7,471
Recurrent	1,263	1,466	1,735
Development	4,542	5,953	5,736
Total GoV	103,151	119,403	135,490
Agric. share of total GoV	5.6%	6.2%	5.5%

Source: GoV/World Bank (2005).

Capital and recurrent spending

Within the agriculture budget, capital expenditure accounts for 75 percent of spending. This leaves only 25 percent of the budget for salaries, and operations and maintenance. The 2005 PER-IFA indicates that under-funding of the recurrent budget has become an increasing problem over the last six years, resulting in capital investments being made without due regard to the recurrent costs required properly to service these investments. For example, the irrigation sub-sector, which accounts for a significant share of sector spending, suffers low utilisation rates (around 60

percent) largely due to insufficient funds for operations and maintenance (exacerbated by poorly organised water-user associations).

The apparent imbalance between the capital and recurrent budgets arises from: the dual budgeting system in Vietnam; political processes which favour capital investments; and an expectation that much of recurrent funding needs will be met locally through in-kind contributions and user fees.

Spending by function

The functional breakdown of expenditures is difficult to determine due to the way in which data is recorded and the fact that the majority of spending is decentralised to provinces (see below). However, the 2005 PER-IFA shows that the irrigation sub-sector accounts for the majority of sector spending, at around 60 percent of the budget (Table 2). Much of the remaining expenditure is accounted for by large-scale rural development programmes (the 'other' category in Table 2) and forestry. Expenditure on agricultural research and extension accounts for a relatively small share of sector spending, at around 5 percent (shared equally between research and extension).

Table 2 Agriculture spending by function (VND bn)

	2000	2001	2002
Irrigation	3,620	4,678	4,211
Forestry	546	576	678
Research	150	162	168
Extension	108	155	196
Other	1,380	1,849	2,218
Total	5,804	7,420	7,471

Source: Joint PER-IFA, 2005.

Analysis of agricultural research spending by IFPRI shows that while research spending almost tripled between 1996-2002, average spending per researcher and research intensity levels are lower than in neighbouring countries (IFPRI/ISNAR, 2006). The share of spending allocated to research (2.5 percent) is low relative to other countries in the region - compared for example to 10 percent in Thailand and 6 percent in China. In 2002 Vietnam recorded an Agricultural Research Intensity ratio (ARI) of 0.17 percent (i.e. invested \$0.17 for every \$100 of agricultural output). This is significantly below the government ARI target of 0.51 percent. However, government's commitment to increase spending on agricultural research remains strong, as evidenced by the approval in early in 2006 of new large-scale investments in biotechnology research.

Funding for agricultural extension services is provided mainly through local government budgets (Table 3). The Ministry of Agriculture and Rural Development (MARD) controls about one-third of the extension budget, mainly used to fund extension services under national programmes. Overall, most extension spending is accounted for by salaries, with little allocated to fund operational work. Most extension officers are largely occupied with administrative matters and are not trained as professional extension specialists. This reflects the approach in Vietnam that, at the local level, extension services should be provided through community organisations without the need for state funding.

The PER-IFA notes that while this approach served Vietnam well during the post-reform era, a more professional approach to extension service provision is likely to be required if Vietnam is to ensure sustained growth in agriculture and competitiveness in international markets.

Table 3 Spending on agricultural extension (VND bn)

	2000	2001	2002	2003
Central government	29	43	66	68
Local government	79	112	130	117
Total	108	155	196	185

Source: GoV/World Bank (2005).

Fiscal decentralisation

MARD is responsible for agriculture policy and for achieving the agriculture targets set out in the government's five-year plan. MARD also directly controls large sector investments. However, fiscal decentralisation has shifted much of agriculture spending from MARD to the provincial administrations. Currently around 80 percent of sector spending is through the provinces, compared to less than 50 percent in the late 1990s. Recent changes in the State Budget Law further extend the fiscal decentralisation process to provincial and district levels.

Fiscal decentralisation raises important issues in relation to the changing role of MARD in the sector. With weakened control over total sector spending, the role of MARD is gradually shifting away from direct control towards a role focussed upon policy, regulation, and facilitation. However, the impact of these changes upon sector spending remains unclear. While decentralisation provides greater freedom for local authorities to increase spending to agriculture, the extent to which this occurs depends upon the priority given to agriculture. Currently there is no evidence that local governments are increasing the relative share of funds allocated to agriculture.

State-owned enterprises

There are a large number of State-Owned Enterprises (SOEs) active in the sector. The PER-IFA reported 319 SOEs, excluding irrigation management companies and State Forestry Enterprises. Of this total, just 28 were providing public goods. The remainder offered services in exchange for user-fees, of which 171 were considered profitable, 43 just managed to cover their costs, and 105 were unprofitable. Unprofitable SOEs are supported by loans from state-owned commercial banks and allocations from the state budget.

Over the four years to 2003, the debts of the agriculture SOEs doubled to a level equivalent to twice the agricultural budget. While some of these enterprises provide public services, particularly in remote areas, many are engaged in activities, such as agricultural marketing and processing, that otherwise could be provided by the private sector. This crowding out of the private sector has the effect of discouraging the private investment desperately needed to maintain growth and competitiveness in agriculture. SOEs are also a significant drain on state funds. The PER-IFA suggests that a 2.5 percent reduction in the debts of SOEs would free sufficient savings to double spending on research and extension.

Donor spending

Donor contributions to agriculture have been steadily declining, but remain significant. Over the period 1997 to 2001 the donor share of the agriculture budget declined from 88 percent to 46 percent (PER-IFA). Donor funding is particularly high in the forestry sub-sector, accounting for over 60 percent of investment resources over the period 1996 -2003.

3. Returns to agriculture investments

Currently no data is available on the returns to agriculture investments. The budget classification and way that spending is recorded does not allow detailed analysis of public expenditures at sub-sector level, let alone any assessment of impact. Currently MARD does not have a Monitoring and Evaluation unit, although efforts are underway to establish such a unit with donor support.

4. Budget process

MARD is responsible for the setting of sector priorities and targets within the Five-Year Plan. It also provides oversight of the agriculture plans prepared by lower levels of government. However, in relation to sector resources, MARD only has control over its own budget, equivalent to approximately 20 percent of total sector spending.

MARD is not involved in the budget submissions prepared by provinces. These are sent direct to central government (Ministries of Planning / Finance) and the National Assembly for consideration and approval. Following their approval provincial budgets are then disseminated by the Ministries of Planning / Finance directly to the provinces.

Often annual budgets (MARD and provincial) do not have a strong connection with the Five Year Plan. They are also weak in relation to strategic prioritisation, understanding of sector constraints and incentives, and clearly defined roles for the public and private sectors. Moreover the share of responsibilities between MARD and other sector institutions is unclear and authorities responsible for the agricultural sector lack access to data on budget execution, especially at local levels. The result is inconsistency and mismatch in budget planning and execution. In order to address these problems – which affect all sectors – in 2003 government launched a Public Financial Management Reform Project, including the development of Medium Term Expenditure Frameworks at sector level. Within the reform programme, agriculture is included as one of four pilot sectors.

References

Government of Vietnam and World Bank (2005) Public Expenditure Review and Integrated Fiduciary Assessment,

IFPRI / ISNAR (2006) Agricultural Science and Technology Indicators (ASTI) for Vietnam, , July 2006

World Bank (2004) Vietnam Development Report 2005,

World Bank (2005) Accelerating Vietnam's Rural Development: Growth, Equity, and Diversification (Vol. 1), World Bank (June 2005).

Argentina Case Study

1. Agriculture expenditure trends and patterns.

In 2004, the agricultural and livestock sector generated 9 percent of GDP and 22 percent of the value added of the goods-producing sectors.²⁴ Crops made the largest contribution (63 percent of the total), followed by livestock (31 percent) (World Bank, 2006). Agriculture is also a major source of employment.

Total agricultural expenditure

Most national agricultural expenditure occurs through a series of semi-autonomous government agencies. Public expenditure in Argentina is more or less equally shared between the national government and the provincial plus municipal governments. The proportion of national public expenditure in agriculture is extremely low by international standards, falling from 1.1 percent in 1998 to a low of just over 0.5 percent in 2002 before rising to 0.8 percent in 2005 (Table 1)

Table 1: Composition of public expenditure, 1998 to 2005 (million current AR\$)

	National	Agriculture*		
	AR\$ (m)	AR\$ (m)	% of national exp.	% of agric. GDP
1998	47,531	516	1.09%	3.4%
1999	50,046	473	0.95%	3.9%
2000	49,720	449	0.90%	3.5%
2001	48,903	384	0.79%	3.3%
2002	46,980	254	0.54%	0.8%
2003	58,867	348	0.59%	0.9%
2004	64,828	465	0.72%	1.1%
2005	77,978	613	0.79%	1.4%

Source: World Bank (2006) Table 4.4 and Figure 4.3 from MECON (2006) and INDEC.

* Includes SAGPyA, INTA, INV, INIDEP and INASE but appears to exclude SENASA and FET (see Table 3).

Over the period 1998-01, national public agricultural expenditure accounted for between 3 to 4 percent of agricultural GDP. It then fell dramatically in 2002 to 0.8 percent of agricultural GDP before gradually rising again. This was as a result of a combination of factors after an economic crisis and currency devaluation:

- A change in relative prices in favour of agriculture due to the devaluation;
- The increase in international prices of Argentina's export products; and
- The comparatively strong performance of agriculture during the crisis.

A fiscal analysis of four provinces (Buenos Aires, Catamarca, Mendoza, and San Juan) indicates that provincial spending in agriculture is larger than national spending but is also a small proportion of their total and agricultural GDP, ranging from 5 percent of provincial agricultural GDP in Mendoza to 3 percent in Buenos Aires (Table 2).

²⁴ Subsectors: agriculture, livestock, hunting, and silviculture—Preliminary estimates in millions of AR\$, at current prices, by the Bureau of National Accounts, INDEC.

Table 2: Agriculture spending by four provinces in 2003

Province	Agric. expenditure as percentage of:		
	Prov. expenditure	Prov. GDP	Prov. agric. GDP
Buenos Aires	1.8%	0.2%	2.9%
Catamarca	3.9%	0.5%	5.4%
Mendoza	1.1%	0.3%	5.0%
San Juan	2.3%	0.4%	4.6%

Source World Bank (2006) Figure 4.1 based on O'Connor (2004).

There is no information in the available statistics that refers specifically to a breakdown of total expenditure into recurrent and development components.

Functional classification of expenditure

The World Bank (2006) study contains a functional classification of expenditure that indicates that in 2003 37 percent of Argentina's already low public expenditure on agriculture is on private goods (Table 3). Expenditure on public goods includes agricultural research and extension (INTA, 26 percent; INDEP, 1 percent; INV, 2 percent), sanitary and phytosanitary control (SENASA, 20 percent), and seed quality (INASE, 0.5 percent). The largest expenditure of a private good type is the *Fondo Especial del Tabaco* (FET), constituting some 30 percent of total national agricultural expenditure, and financed by an earmarked tax on cigarette purchases. This tax provides price support and other incentives to the tobacco industry.

A recent study of Latin American countries by López (2004), quoted in the World Bank report, calculated that, for the nine countries in the study²⁵, reallocating 10 percent of subsidy expenditures to supplying public goods may yield an increase in per capita agricultural incomes of about 2.3 percent, without increasing total government expenditures. While Argentina's spending on agricultural private goods is not high by Latin American standards,²⁶ coupling low overall agricultural expenditure with a 37 percent proportion on private goods leads to the risk of a substantial under-expenditure on vital public goods.

Table 3: Public / private classification of govt. expenditures in rural sector, 2003

	Millions of AR\$		Percentage	
	Public	Private	Public	Private
SENASA (sanitary & phytosanitary)	128	----	20%	----
INTA (research & extension)	168	----	26%	----
INIDEP (research & extension)	9	----	1%	----
INASE (seed quality)	3	----	0%	----
INV (research & extension)	11	----	2%	----
SAGPyA ^a	85	52	13%	8%
FET (tobacco price support)	----	187	----	29%
TOTAL	404	239	63%	37%

Source: World Bank (2006) based on O'Connor (2004)

a: Transfers from the Secretariat of Agriculture (SAGPyA) to the provinces, including externally financed projects to support small producers and emergency support for farmers affected by flooding. In addition, nearly 40 percent of SAGPyA expenditure goes to subsidies for forestry, sheep production, and subsidised credit, largely of a private good nature.

²⁵ These countries are Costa Rica, Dominican Republic, Honduras, Panama, Paraguay, Peru, Venezuela, Ecuador, and Uruguay.

²⁶ In Lopez's study, 4 countries spent a lower percent on private goods and 5 countries spent a larger percent.

2. Returns to agriculture investments

The largest government institutions providing vital services to the sector are INTA²⁷, which provides agricultural technology research and extension and SENASA²⁸, which is responsible for phytosanitary protection and food quality and safety services. They are both decentralised public institutions operating under SAGPyA. In 2003 they jointly accounted for 46 percent of national government spending in agriculture and 73 percent of the estimated expenditure on public goods in agriculture.

Research and extension. INTA can claim a number of important successes over the last 15 years, including:

- Its contribution to the development and dissemination of the direct planting, zero tillage technology;
- The development (or contribution to development) of a number of specialised grain and fodder varieties suitable for particular agro-ecological conditions; and
- The dissemination among small and medium farmers of modern management techniques through the Cambio Rural program.

Many of INTA's contributions were frustrated by the extreme shortage of budgetary resources during the 1990s and at the beginning of the 2000s, which resulted in the loss and insufficient renovation of qualified staff, little staff training, and strong shortage of operational funds. Fortunately, the budgetary constraint has been substantially reduced in the last years.

Many challenges remain, however, to keep pace with the deep changes taking place in agriculture in Argentina. INTA's strategic planning faces up to these challenges but there are several important areas in need of fresh technological research and extension efforts which seem to require more emphasis. They include environmental sustainability, irrigation, bio-energy, quality systems, and the development of non-traditional and specialty products (World Bank, 2006).

Phytosanitary and food safety regulation. SENASA has good technical capacity and has been able over the years to establish regulatory systems and a number of valuable regulatory and policing processes. However, there are a number of areas where further strategic strengthening of the institution's role is required. These include the convergence of quality standards for domestic and export markets, the clarification of roles and responsibilities with other jurisdictions and the private sector, decentralisation to the regional level, and measures to ensuring financial sustainability.

References

López, Ramón, 2004, Why Governments Should Stop Non-Social Subsidies: Measuring the Consequences for Rural Latin America

World Bank (2006) Argentina Agriculture and Rural Development: Selected Issues Report No. 32763-AR, July 31, 2006

²⁷ Instituto Nacional de Tecnología Agropecuaria

²⁸ Servicio Nacional de Sanidad y Calidad Alimentaria