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MOZAMBIQUE

ANALYSIS OF PUBLIC EXPENDITURE IN AGRICULTURE

Volume I: Core Analysis

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ACRONYMS

AfDB	African Development Bank
AR	National Assembly (Assembleia da República), the parliament
AU	African Union
BdPES	*Balanço do PES* (annual report on execution of the previous year's PES)
CAADP	Comprehensive Africa Agriculture Development Program
CEF	Forestry Experimental Centre (Centro de Experimentação Florestal)
CEPAGRI	Agriculture Promotion Center (Centro de Promoção da Agricultura)
CFA	Agricultural Training Centre (*Centro de Formação na Agricultura)*
CFFM	Common Flow of Funds Mechanism (of ProAgri)
CFMP	Medium-Term Fiscal Framework (Cenário Fiscal de Médio Prazo)
CGE	General State Accounts (Conta Geral do Estado)
CGIAR	Consultative Group on International Agricultural Research
COFOG	Classification of the functions of government
CPI	Investment Promotion Center (Centro de Promoçãp de Investimentos)
CUT	Single Treasury Account (Conta Única do Tesouro)
DAF	Directorate of Administration and Finance (Direcção de Administração e Finanças), MINAG
DE	Directorate of Economy (Direcção de Economia), MINAG
DFID	Department for International Development (of the UK)
DNA	National Directorate of Water (Direcção Nacional das Águas) of the Ministry of Public Works
DNCP	Accounts Directorate (Direcção Nacional da Contabilidade Publica)
DNPDR	National Directorate for the Promotion of Rural Development (Direcção Nacional de Promoção do Desenvolvimento Rural)
DNSA	National Directorate of Agrarian Services (Direcção Nacional de Serviços Agrários), MINAG
DNTF	National Directorate of Land and Forestry (Direcção Nacional de Terras e Florestas), MINAG
DPA	Provincial Directorate for Agriculture (Direcção Provincial de Agricultura)
DPPF	Provincial Directorate for Planning and Finance (Direcção Provincial do Plano e Finanças); at provincial level, the planning and finance functions are combined in one single directorate.
EC	European Commission
EU	European Union
FAAP	Framework for African Agricultural Productivity
FAO	Food and Agriculture Organization of the United Nations
FARA	Forum for Agricultural Research in Africa
FDA	Agricultural Development Fund (Fundo de Desenvolvimento Agrário)
FDHA	Irrigation Development Fund (Fundo de Desenvolvimento da Hidráulica Agrícola)
FFA	Agricultural Promotion Fund (Fundo de Fomento Agrário)
FDHA	Irrigation Development Fund (Fundo de Desenvolvimento da Hidráulica Agrícola)
FFP	Fund for the Promotion of Fishing (Fundo de Fomento Pesqueiro)
FMR	Financial Management Report

GBS	General budget support
GDP	Gross domestic product
GoM	Government of Mozambique
GPZ	Zambezi Region Development Authority (Gabinete do Plano de Desenvolvimento da Região do Zambeze)
HICEP	Chókwè Hydraulic Company (Hidráulica de Chókwè E.P.); publicly owned
IAM	National Cotton Institute (Instituto do Algodão de Moçambique)
ICM	Cereal Institute (Instituto de Cereais de Moçambique)
IFMIS	Integrated Financial Management and Information System
IIAM	Institute of Agricultural Research of Mozambique (Instituto de Investigação Agrária de Moçambique)
IMF	International Monetary Fund
INAS	Institute for Social Action (Instituto Nacional da Acção Social)
INCAJU	Cashew Promotion Institute (Instituto de Fomento do Cajú)
INDER	National Rural Development Institute (Instituto Nacional para o Desenvolvimento Rural)—(1994–99)
INE	National Institute of Statistics (Instituto Nacional de Estatística)
INGC	National Disaster Management Institute (Instituto Nacional de Gestão de Calamidades)
INIA	National Institute of Agronomic Research (Instituto Nacional de Investigação Agrária)
INIVE	Institute of Veterinary Research (Instituto Nacional de Investigação Veterinária
IPA	Institute of Animal Production (Instituto de Produção Animal)
JR	Joint review
LOLE	Law on Local State Organs (Lei dos Órgãos Locais do Estado)—law n° 8/2003
M&E	Monitoring and evaluation
MAP	Ministry of Agriculture and Fisheries (Ministério da Agricultura e Pescas) (1994–99)
MDG	Millennium Development Goal
MADER	Ministry of Agriculture and Rural Development (Ministério da Agricultura e Desenvolvimento Rural) (2000-2004)
MADSAR	Massingir Dam and Smallholder Agricultural Rehabilitation (project funded by AfDB)
MF	Ministry of Finance (Ministério das Finanças)
MIC	Ministry of Industry and Commerce (Ministério da Indústria e Comércio)
MICOA	Ministry for the Coordination of Environmental Action (Ministério para a Coordenação de Acção Ambiental)
MINAG	Ministry of Agriculture (Ministério da Agricultura); since 2005
MOPH	Ministry of Public Works and Housing (Ministério da Obras Públicas e Habitação)
MoU	Memorandum of Understanding
MP	Ministry of Fisheries (Ministério das Pescas)—established in 2005
MPD	Ministry of Planning and Development (Ministério da Planificação e desenvolvimento)
MT	Metical (Mozambican abbreviation of its currency)
MTEF	Medium-term expenditure framework

MZN	New metical (international abbreviation)
NEPAD	New Partnership for Africa's Development
NGO	Nongovernmental organization
ODA	Official Development Assistance (grants plus concessionary loans)
OE	State budget (Orçamento do Estado)
OECD	Organisation for Economic Co-operation and Development
OIIL	Local Initiative Investment Budget (Orçamento de Investimento de Iniciativa Local)
PAAO	Annual Plan of Activities and Budget (Plano Annual de Actividades e Orçamento)
PAF	Performance assessment framework
PAMA	Project for the assistance to rural markets (Programa de Apoio aos Mercados Agrícolas)
PAP	Programme Aid Partners
PAPA	Food Production Action Plan (Plano de Acção para a Produção de Alimentos)
PARPA	Action Plan for the Reduction of Absolute Poverty (Plano de Acção para a Redução da Pobreza Absoluta)
PEDSA	Strategy and Plan for Agro-Development (Plano Estratégico de Desenvolvimento Agrário)
PER	Public expenditure review
PES	Economic and Social Plan (Plano Económico e Social)
PGQ	Government five-year plan (Programa Quinquenal do Governo)
PIDA	Integrated Program for Agricultural Development (Programa Integrado de Desenvolvimento Agrário (project funded by Italy)
ProAgri	Agriculture sector strategy and expenditure programme
PRSP	Poverty reduction strategy paper
PTAO	Quarterly activity plans (Plano Trimestral de Actividades e Orçamento)
REOE	Quarterly financial report (Relatório de Execução do Orçamento do Estado)
Re-SAKSS-SA	Regional Strategy Analysis and Knowledge Support Systems for Southern Africa
SDAE	District Economic Service (Serviço Distrital de Actividades Económicas)
SEMOC	Mozambique Seeds (Sementes de Moçambique)
SIMA	Agricultural Market Information System (Sistema de Informação de Mercados Agrícolas)
SISPLATA	System of Tactical Agricultural Planning (Sistema de Planificação Táctica)
SISTAFE	System of Financial Administration of the State (Sistema de Administração Financeira do Estado)—law n° 9/2002, the basic piece of legislation of public finance management in Mozambique
e-SISTAFE	Integrated computer system to implement the principles described in the SISTAFE law and regulations
SPA	Special Partnership for Africa
SSIP	Small-Scale Irrigation Project (funded by AfDB)
TA	Administrative Court (Tribunal Administrativo)
TIA	Rural household income surveys (Trabalho de Inquerito Agricola)
UN	United Nations
UNDP	United Nations Development Programme

USAID	United States Agency for International Development
UTRAFE	Technical Unit for the Reform of Public Financial Management (Unidade Técnica da Reforma da Administração Financeira do Estado)
VAT	Value added tax

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Private Investment in the Agriculture Sector in Mozambique, financed by USAID, prepared by Nathan Associates Inc. (Washington, D.C.).

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The task force included representatives from the Ministry of Agriculture (Directorate of Economics, Directorate of Administration and Finance), the Ministry of Planning and Development (Directorate of Studies and Policy Analysis), the Ministry of Finance (National Directorate of Budget), the Ministry of Fisheries (Directorate of Economics), the Regional Strategic Analysis and Knowledge Support System for Southern Africa (ReSAKSS), Michigan State University (MSU), the Delegation of the European Commission, the US Agency for International Development (USAID), and the World Bank. Discussions on the elaboration of an AgPER were initiated by ReSAKSS (with technical support from MSU) and MINAG. The World Bank provided overall technical leadership throughout the process of elaborating the AgPER.

This AgPER consists of three complementary volumes. *Volume I - AgPER Core Analysis* - has been led by the World Bank with support from experts from the FAO Investment Centre in Rome and a team of national and international consultants for data collection, processing (*Vol.I*, Annex 2), and analysis; the consultants were all financed by the Bank-managed DfID Trust Fund for the Africa Agriculture Market Programme. The FAO Investment Centre also provided the assessment of the agriculture budget execution and preparation process (*Vol.I*, Annex 1). MSU, through funding from ReSAKSS, contributed extensively to the analysis of agricultural research and the spatial patterns of public expenditure covered in the Core Analysis (*Vol*.I Ch.4.6 and 4.7). ReSAKSS also funded the contributions on the spatial analysis by the Human Sciences Research Council (Pretoria). MozSAKSS contributed additional funding for editing and translation.

The following AgPER task force members have directly contributed to various parts of *Volume I*: Dieter Orlowski, Adriano Chamusso and Antonio França (WB Consultants), Ms. Sylvie Tillier and Jean Risopoulos (FAO-Investment Centre), Gilead Mlay and Helder Zavale (MSU Mozambique), Helder Gemo (MozSAKSS), Belmiro Cruz (MINAG/DAF), Ms. Eulalia Macome (MINAG/DE), and Pedro Arlindo and Patrick Verissimo (World Bank Office, Maputo).

Volume II – Public Expenditure in the Irrigation Sector – has been developed as an integral part of the AgPER and focuses on a priority subsector selected by MINAG. *Vol. II* has been financed by the European Commission and led by Giancarlo Monteforte (EC, Maputo). The work has been implemented by the consulting firms HTSPE Ltd. (UK), OmigaTech (Portugal), and GFA (Germany).

Volume III – Private Investment in the Agriculture Sector – has been conceived as a complementary analysis to the AgPER. *Vol.III* has been financed by USAID and led by

Ms. Christine de Voest and John McMahon (USAID, Maputo). The report has been prepared by Nathan Associates, Inc. (Washington, D.C.).

A *Volume IV –MINAG Toolkit to Analyse Agriculture Expenditures* – had initially been envisaged as a part of this AgPER. However, the World Bank and IFPRI are currently developing such a hands-on guide (which will reflect the experience of, among others, the AgPER Mozambique) and will be a forthcoming separate publication (for more information consult http://go.worldbank.org/USO9CIWW10). Therefore, no separate toolkit for Mozambique was produced.

EXECUTIVE SUMMARY

Context, objectives, audience

The Agriculture Public Expenditure Review (AgPER) for Mozambique has been prepared to assess the quantity and quality of public spending in the agriculture sector. It aims at identifying potentials for increasing the effectiveness of public spending by reallocating funds between subsectors and regions and identifying areas that appear to be significantly underfunded. It also assesses the share of public expenditure in agriculture, as compared to all public expenditure, in order to assist the authorities with their reporting commitment to NEPAD/CAADP on public spending in agriculture.

The primary targeted audiences are the Ministry of Agriculture (MINAG) and the Ministry of Fisheries (MP), which are allocated public funds, and the Ministry of Planning and Development (MPD) and the Ministry of Finance (MF), which prepare the final proposals for the annual budget and the medium-term expenditure framework (MTEF). The report is intended to provide the basic information that is required for strategy-oriented discussions and negotiations between the line and the central ministries, and for sound and informed decisions on arbitrage. It also provides information on aspects that should be at the centre of these discussions, such as the expected effectiveness of subsector spending, their importance for economic growth and poverty reduction, and the composition of expenditure, particularly with regard to private versus public goods. This AgPER is also geared towards increasing the information and knowledge level of donors who are supporting the sector through the agriculture sector strategy and expenditure programme (PROAGRI) common fund and/or project-based activities.

AgPER is the result of a collaborative effort among several institutions. Key contributors were MINAG and MP, the Regional Strategic Analysis and Knowledge Support System for Southern Africa (ReSAKSS), a team from Michigan State University (MSU), the European Delegation in Mozambique, the US Agency for International Development (USAID) and the World Bank. These institutions were grouped under the MINAG-led AgPER task force, which also included MPD, MF and donor representatives, and was set up to provide guidance and frequent feedback on progress and intermediate results throughout the process of elaborating the AgPER.

In line with the definition recommended by NEPAD, the focus of this AgPER is on agriculture in the broad sense, which includes crops, livestock, fisheries, and forestry. This definition broadly follows the international classification of government functions (COFOG), which does not make a distinction between grants, loans and subsidies as long as they are financed from public funds. In that context, **this AgPER takes spending on large-scale irrigation into account.**

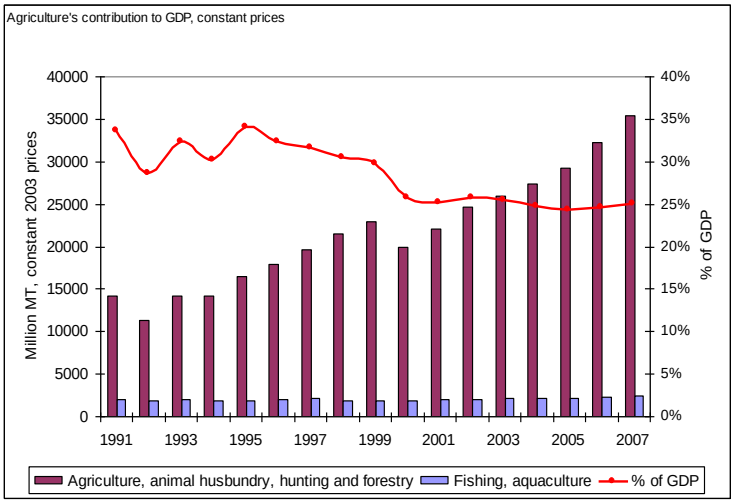
Furthermore, for the purpose of this exercise, it was assumed that from 2007 onward 50 percent of the investment allocation to districts for supporting local economic projects (OIIL, also referred to as the "seven million") is spent in agriculture. The

"seven million" refers to an investment budget line for districts for food production and income generation, which is used to provide investment credit for local economic activities, initially attributed at a rate of 7 million Meticais per district. Although no robust data about its use is yet available, anecdotal evidence and interviews strongly suggest that probably even more than the assumed 50 per cent of this budget line may in fact be allocated to agricultural activities.

Deficiencies and inconsistencies in available data have been a key constraint for this AgPER, as is often the case in public expenditure work**.** This resulted in an inability to disaggregate in datasets for crops, animal husbandry, lands and forests. Furthermore, different accounting systems often yielded conflicting information. Also, sparse and incomplete data on private investment made it impossible to draw specific conclusions on private spending in agriculture.

Agriculture in the national context

About 25 per cent of Mozambique's GDP comes from agriculture (crops, forestry, and livestock) and fisheries, which represent the main source of income for around 80 percent of the population. The share of agriculture in total GDP has been fairly stable in spite of the surge of new resource-based industries since around 2000 (see Figure 12 in the main text for notes and further explanation of the graph). In the period 2001–07, annual real economic growth averaged 8.2 percent. However, cereal production has levelled off after the successful recovery from the civil war (which ended in 1992). Two series of data show different trends, and the one with the lower production figure and growth is probably the more correct one.



Agriculture in Mozambique is dominated by smallholders, although some big estates in the sugar sector and smaller ones for other cash crops exist. Cereal production is concentrated in the northern provinces and the northern parts of the central provinces, which are also the areas of greatest population concentration.

Cereal production per rural capita has remained essentially steady over the last ten years while the use of improved technologies (chemical fertilisers, pesticides, animal or motorised traction, and irrigation) remains below regional averages. This suggests that there is substantial untapped potential for increasing production and land and labour productivity**.** Few smallholders use modern inputs. Less than 5 percent use chemical fertilisers or pesticides. The use of improved seeds is limited (10 percent for maize, 3 percent for rice), while slightly more than 10 per cent of smallholders use animal traction. The use of irrigation has grown since 2005, but information about irrigated areas is insufficient to draw conclusions. Land productivity for the cereals maize, millet, and

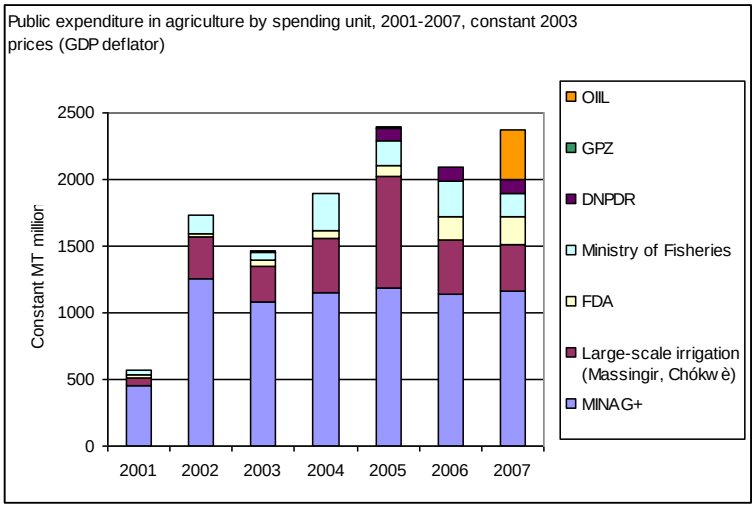
sorghum is significantly higher in the north than in the south. Even in the north, this figure is well below regional averages. Food productivity per rural capita remained essentially constant at around 600 kg over the past 20 years, with an upward trend in 2006 and 2007 that, however, may be no more than a reflection of weaknesses in the data.

In mid-2008, the government adopted the Food Production Action Plan (PAPA) as a direct response to the surge of cereal prices in 2007/8, which added a new concern for the country's food self-sufficiency. The PAPA, valid for three agricultural seasons, makes provision for, among others, substantial public investments in silos (in order to ensure storage for increased maize production) and irrigation (mainly to boost rice production). It is funded partially from internal resources, but donors are called upon to cover 90 percent of its cost through additional development aid.

Public expenditure in agriculture: current situation

Public expenditure in agriculture is assessed mainly on the basis of official public accounts (financial reports), supplemented by information obtained from some projects (where only part of a ministry or institute is considered as spending in agriculture) and from financial reports of the Agrarian Development Fund (FDA). When looking at total expenditure, 50 percent of the budget allocation to districts for promotion of economic activities (OIIL), meant to boost food production and employment creation (the "seven million") through the OIIL, which is also taken into account.

Mozambique does not provide generalised subsidies on agricultural inputs, as some neighbouring countries do. Therefore, spending on private goods is limited. Still it is substantial if one considers that the "seven million," the spending of the FDA, and a large portion of spending on cashew – a key traditional smallholder cash crop – is on goods that, in principle, the market could provide. But the situation is about to change in view of the targets of the PAPA, where the provision of highly subsidised inputs, particularly of seeds and fertiliser, is planned in order to accelerate the adoption of modern technologies by farmers producing the targeted crops.



Real total public expenditure on agriculture and fisheries has fluctuated, particularly because of substantial investment in large-scale irrigation schemes in Gaza province. Total nominal expenditure amounted to MT 3,281 million (US$ 127 million) in 2007 including 50 percent of the "seven million", and MT 2,773 million (US$ 107 million) without it. Spending by MINAG, including provincial directorates and agricultural institutes (excluding the FDA; see below), has been relatively stable since 2002, without a clear trend (see Figure 13 in the main text for notes and further explanations). However, even without taking the large-scale irrigation scheme

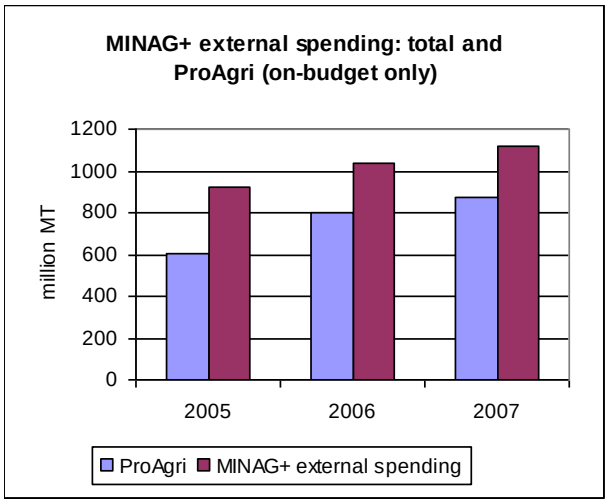
into account, real expenditure increased from 2005 to 2007 because of the increased spending by the FDA and the appearance of the OIIL.

Spending from internal sources (internal revenues and general budget support) by MINAG, MP and Agricultural Institutes (but excluding the FDA) was more or less stagnant as well. However, if the increased FDA spending in 2006 and 2007 is considered, there is a clear upward trend. In 2007 FDA spending represented 36 percent of total spending from internal resources by MINAG and its institutes (including provinces, but without considering the OIIL). More emphasis on agriculture in the years 2008 and 2009 has led to a substantial increase of allocations to MINAG and the research institutes from internal sources in the budgets for those two years.

In 2007, some 41 percent of spending by MINAG and its institutes (including the FDA, but not considering the OIIL) is from domestic resources, with earmarked external funds making up the rest. A large share of external funds is centrally managed by MINAG, which manages 47 percent of total expenditure. But only 14 percent of spending from domestic sources is centrally controlled if only MINAG central and provincial directorates of agriculture are taken into account.

The FDA spent more than twice as much from domestic sources as did the central level of MINAG (excluding the institutes). The FDA activities are financed from own revenues collected by the agricultural administration, with forestry-related fees and fines being the main source. The FDA was off-budget until 2008; it is included in the budget from 2009 onwards. Its spending is partly on public, partly on private goods, and cannot easily be classified.

The weight of pooled funding through the ProAgri common fund in total recorded expenditure against external sources is high. The graph, based on data from the public financial report (OGE) refers to spending by MINAG and its institutes only, thus excluding large-scale irrigation and spending in the fisheries sector.



It is not possible to provide a subsectoral breakdown of spending by function. This is due to a number of reasons: the public accounting system classifies expenditure by institution, but not by subfunction or directorates. The Arco-Iris accounting system does classify expenditure by components, which are similar to subfunctions, but only for a relatively small portion of spending. Recurrent expenditure is not broken down by components at all, and three-fourths of investment expenditure (expenditure attributed to projects, which contain many items of current as well as routine expenditure) is classified as either institutional support or common expenses, i.e., overheads that, for various and often legitimate reasons, were not classified as contributing directly to the production of services provided to the farming community. A breakdown by function is possible only in the cases

of agricultural research and fisheries, since these functions coincide with a spending unit with its own organic code.

Budget execution rates have been around 80 percent in the past, but the exact figure varies according to the spending unit and the source of funds. Most of the systemic causes of low budget execution have been removed with the introduction of e-SISTAFE (electronic SISTAFE) to implement the principles described in the Integrated System for State Financial Management (law and regulations) and the abolition of the old system of making advance payments to spending units. Three causes remain**:** (1) complicated and lengthy procurement processes, (2) the need to close the accounts of one year before beginning to spend against the following year's budget, and (3) delays in the disbursement of external funds. The procurement rules are under review, and one can hope that pending modifications will accelerate the processes. Continued attention has to be paid to compliance with disbursement conditions of the various donors.

Level of spending in agriculture: is it adequate?

Agriculture's contribution to GDP is growing, and spending as a share of agricultural GDP is high relative to other African countries. Growth of agricultural GDP has been regularly above the 6 percent expected in the context of NEPAD strategies. Off-budget spending adds about another third of public expenditure recorded in budgets and financial reports**.** Including this estimated amount, public spending on agriculture represents approximately 7.7 percent of agriculture and fishing GDP, a comparatively high figure in the region.

If Mozambique were to comply with the declared African Union (AU) target public expenditure in agriculture and fisheries would need to almost double. Public expenditure in 2007, including half of the "seven million" budget line spending on large-scale irrigation and funds channelled through the FDA, amounted to 4.6 percent of total expenditure and 5.6 percent of the expenditure of public institutions (i.e. excluding debt service, pensions, financial operations etc.). Since the AU target was defined as a *percentage* of total spending, the weight of some other sectors needs to be reduced. In spite of the plans to increase public spending in order to boost cereal production, the percentage of agriculture expenditure against the budget total is not significant.

Public spending in agriculture relative to total government budgets

										million MT
		2001	2002	2003	2004	2005	2006	2007	2008b	2009b
(1)	Agriculture spending excl. OIIL	504	1,655	1,470	2,040	2,795	2,679	2,773	4,434	5,195
(2)	Agriculture spending incl. OIIL	504	1,655	1,470	2,040	2,795	2,679	3,281	4,945	5,728
(3)	Total expenditure	24,289	29,124	28,294	31,630	40,719	48,274	60,293	87,098	102,705
(4)	Institutional expenditure	11,600	17,487	21,004	25,030	31,812	38,904	49,288	73,038	88,080
	Agriculture excl. OIIL as of									
	Total expenditure	2.1%	5.7%	5.2%	6.5%	6.9%	5.6%	4.6%	5.1%	5.1%
	Institutional expenditure	4.3%	9.5%	7.0%	8.2%	8.8%	6.9%	5.6%	6.1%	5.9%
	Agriculture incl. OIIL as of									
	Total expenditure	2.1%	5.7%	5.2%	6.5%	6.9%	5.6%	5.4%	5.7%	5.6%
	Institutional expenditure	4.3%	9.5%	7.0%	8.2%	8.8%	6.9%	6.7%	6.8%	6.5%

See Table 8 in the main text for sources and notes.

Spending on agricultural research (without research in fisheries) amounts to slightly below US$6 million (MT140 million) per year, about 4.1 percent of recorded spending

in agriculture and fisheries. Excluding large-scale irrigation projects and the local investment funds, agricultural research still amounts to only 6 percent of public spending in the sector. Research expenditure represents 0.24 percent of agriculture's contribution to GDP, which is considered a low level of spending. No disaggregation of data by research area (crops, animal husbandry, forestry) or type of research (comprehensive and adaptive, multiplication of basic seeds, laboratory and testing services) is available.

The PAPA provisions for research are not likely to significantly change the spending on agriculture research. Although the PAPA makes provision for additional funds for agricultural research for each of the crops that it addresses, research expenditure is highly concentrated on two crops: rice and Irish potatoes. Thus, the PAPA will not bring relief to the problem of underfunding of research for the crops that are of particular relevance to the rural population.

There is scope for increasing spending in an efficient way, particularly in core areas and in the field of agricultural technology and innovation. However, the effectiveness of additional spending needs to be demonstrated, and the trade-off between spending in agriculture, roads, commerce and social sectors cannot be assessed on a purely technical level in the context of an AgPER.

Quality of expenditure

Particular attention needs to be paid to the quality of spending, particularly if public spending in agriculture is to be increased. "Quality" refers in particular to the mix of public and private goods, but also to the relation between spending on agriculture and expenditure on complementary public services such as roads, storage facilities, markets and rural finance.

Little can be said about the quality and effectiveness of past and present public spending in agriculture from the data and information collected. Two factors inhibit a detailed analysis: lack of information about the impact of services, and lack of information about the respective costs. A value-for-money audit will be launched shortly, which should shed more light on this crucial aspect. A monitoring system that emphasises the immediate and medium-term effects of promotional spending should be implemented. This is crucial not only for internal purposes, but also in order to put MINAG in a better position to argue for funds with the central ministries responsible for planning and for finance, as well as with donors.

There are indications of weak performance in crucial core functions of public agricultural administration. Coverage of extension services is very low. Activity reports show that some key activities, such as inspection of seed producers and vaccination campaigns, could not be carried out as planned because funds, although budgeted, were not available because priorities had changed. The distinction between core functions and promotional activities is made in plans, but not reflected in budgets. Marginalising essential core functions in favour of prioritising promotional activities for short-term political gains should be avoided.

Spending efficiency remains unclear with regard to OIIL budget allocation. The 50 percent of this expenditure, which was assumed for the purposes of the study to benefit agricultural activities directly, was significantly higher than the spending of MINAG and its institutes, at central and local level, from general treasury funds (i.e., excluding spending against own revenues). This has been corrected in 2009 by way of a greatly increased allocation to MINAG. However, the weight of the district investment funds remains substantial.

The spatial pattern of spending through the provincial directorates for agriculture seems seriously distorted and does not appear to have a logical explanation. Regardless of the reference, spending in the two most populated provinces of Zambézia and Nampula, which are crucial for cereal production in Mozambique, exhibit low levels of spending in comparison to the other provinces. Spending per rural capita and spending per agricultural holding was used as a reference. Recurrent spending is pre-determined by allocations by MPD and MF; correcting the regional pattern would therefore require close co-ordination between MINAG and these ministries in the context of medium-term planning, which assigns annual budget ceilings to each province and directorate. For project spending MINAG has more influence over the spatial pattern, but does not seem to have been using it in order to address and redress disparities.

Irrigation and private investment

Expenditure on irrigation is substantial (MT 773 million per year on average for 2005–07), but highly concentrated on large-scale irrigation in Gaza province. The Massingir dam and Chókwè irrigation scheme have been plagued by technical problems and were also severely affected by the floods of 2000.

Small-scale irrigation schemes were analysed in greater depth in the context of this AgPER. Several important lessons can be learned from this analysis. The period between initial planning and completion is typically 3–4 years, with procurement and approval of contracts being the stages that take up the most time. However, it would not be advisable to reduce diligence in the preparation stage. The background study identified several cases where water availability was not assessed properly, where land tenure was not clarified or socio-economic parameters not sufficiently examined, leading to difficulties and delays in making full use of irrigation schemes. It is also important to adapt the technical parameters of pumping equipment to the exact location, otherwise energy consumption will be unnecessarily high. Therefore, pumps should not be bought for later distribution without knowing the required pumping volumes and the elevation levels at the time of purchase. There are indications of underutilisation, yet no evidence of economic analysis being undertaken as part of project preparation. It is recommended that the viability of a planned scheme be looked at applying standard instruments of economic analysis in order to assess whether the investment makes economic sense, and whether there is a reasonable likelihood of realising necessary production increases.

Information on private investment in agriculture is scarce and partial. Available sources record planned, authorised investment, but do not follow up on annual actual investment, or do not provide adequate disaggregation. Virtually no information is available on investment undertaken by smallholders, since the periodic rural Agricultural

Survey (TIA) does not include questions on this. Information on private national investment in agriculture is an important parameter for assessing whether investment is sufficient for sustainable growth, whether it is crowded in by public agricultural services, and whether there are impediments to smallholders that might prevent adequate investment levels for sustainable agricultural growth.

Financial planning and execution

The difficulties in obtaining reliable and complete data and disaggregating spending by function and programme suggest that it is a challenge for MINAG itself to gain an overview of the areas in which public funds are spent, making it very difficult to align spending patterns to priorities. In fact, the current financial planning and budgeting system is based on instruments that were created to track funds made available by donors and channelled through a common fund, in a period when the general public accounting system was not in a position to provide records that would allow it to audit expenditure. Budget preparation is based on detailed, consultative activity planning starting from the grassroots level, but then needs to be consolidated and adjusted in order to ensure that expenditure fits into the envelope of available financial resources. The system is partial in that it does not include some donor funds that MINAG does not manage, excludes funds spent through the FDA and covers only the core functions (and not the promotional activities).

MINAG's internal accounting system, Arco-Iris, has become a parallel system with all the difficulties entailed in synchronising it with the new official e-SISTAFE system. In theory, Arco-Iris has the advantage of being able to disaggregate spending by components and subcomponents. However, in practice most of the expenditure is booked under categories that refer to some form of overheads, and only a small part is attributed to services rendered to farmers and communities.

A national MTEF is emerging and is becoming increasingly important for the determination of budget ceilings. But MINAG is not taking up the opportunity to gain higher budgetary allocations by making well-argued and presented submissions. The MTEF is not integrated into the financial planning system of agricultural institutions. MINAG should promptly take up the opportunity to use the process of elaborating the submission to the MTEF in order to operationalise internal priorities across programmes, components and departments.

It would be timely to develop further the ideas that were behind the conceptualisation of MINAG's planning system some ten years ago and adjust the setup to the new context. This implies having: a practical definition of a programmatic structure of expenditures for the whole of MINAG; instituting internal processes for prioritisation and arbitration around medium-term financial planning; efforts to make use of the functionalities of the e-SISTAFE continuing in order to introduce and use a programmatic classification that corresponds to the strategic and operational management needs of MINAG (and that would allow it to phase out the parallel system currently in use) and using participatory activity planning primarily for deciding which activities to carry out in view of an approved financial envelope, rather than starting with a compilation of needs that are unlikely to fit into budget allocations.

Recommendations

The AgPER proposes to take a thorough look into some aspects that could improve the effectiveness of spending and also ensure that requests for higher funding levels are considered favourably. In view of the various fora for co-ordination and planning that exist, AgPER does not provide an action plan and matrix on its own. These recommendations therefore should be interpreted as suggestions of issues and solutions to be taken up in the appropriate fora. The recommendations, which are spelled out in detail in Chapter 5 of the core report, are as follows:

(1) **Develop the financial planning and management system further** in order to provide adequate space for the consideration of strategic options in view of their financial implications and expected impact. MINAG should provide meaningful contributions to the national MTEF rounds; medium-term planning should also be used as an opportunity to verify and adjust the pattern of spending within the MINAG complex and its institutes and provincial directorates.

(2) **Design a suitable structure of programmes and subprogrammes** that can be used for all financial planning and management aspects.

(3) **Include the Agricultural Development Fund (FDA)** in all planning exercises.

(4) **Ensure that the core functions of public agricultural administration** are not marginalised by the provision of private goods in the context of the PAPA. Medium-term planning would be the most suitable approach.

(5) **Review and adjust the spatial pattern of budgetary allocations**. To that end, a formula-driven reference should be developed. This should be presented to and discussed with MPD so that budget ceilings for provincial directorates can be defined in a more appropriate way.

(6) **Produce evidence of the impact of activities developed by MINAG** on rural incomes and food production.

(7) **Introduce economic analyses** in the context of irrigation projects.

(8) **Strengthens the complementarity and links between the credit provided to farmers under the OIIL scheme and the activities of agricultural public services** in order to maximise their effectiveness in promoting food production and higher rural incomes. At the same time, a thorough review of the administrative mechanisms for the OIIL may be useful in order to increase their effectiveness.

(9) **Collect information on private investment** in the TIA questionnaire and follow up on larger investment projects beyond the approval stage.

(10) **Undertake studies on the consistency of public services for agriculture** at selected localities (provinces or districts). It has been argued in the past that stepping up extension or providing credit will remain ineffective in the absence of accessible market outlets and appropriate technologies. Geographically focused studies are necessary in order to identify adequate mechanisms so that the different public inputs are available in an appropriate combination.

(11) **Prepare a separate in-depth PER on the fisheries sector**.
For the forthcoming value-for-money audit, the AgPER provides the following suggestions so that it can complement the information compiled so far:

- Make a clear distinction between public and private goods because the "value" that one would expect for the "money" is of a quite different nature in the two cases;
- At local level (province or district), examine whether the mix of services provided by the agricultural administration corresponds to the needs of the farming community;
- Analyse to what extent the activities undertaken by central, provincial and district administrations in the agricultural sector and the specialised institutes are sufficiently coordinated to provide a package with adequate content adapted to the needs of the farming community in a specific geographic area;
- Analyse in particular the short and medium-term effectiveness of special promotional activities recently undertaken by MINAG and its institutes, and identify constraints that need to be solved by other government agencies that might otherwise undermine the effectiveness of MINAG's development activities.

SUMÁRIO EXECUTIVO

Contexto, objectivos, público-alvo

A Análise da Despesa Pública na Agricultura (AgPER) para Moçambique foi elaborada para avaliar a quantidade e qualidade da despesa pública no sector agrário. Destina-se a identificar potencialidades para aumentar a eficácia da despesa pública através da reafectação dos fundos entre os subsectores e regiões, e identificar áreas que pareçam ser significativamente sub-financiadas. Também avalia a margem da despesa pública no sector agrícola em comparação com toda a despesa pública, a fim de ajudar as autoridades com o seu compromisso de preparar relatórios para o NEPAD/CAADP sobre a despesa pública na agricultura.

O AgPER tem como principais alvos os Ministérios da Agricultura (MINAG) e das Pescas (MP), como recipientes de fundos públicos, e aos Ministérios da Planificação e Desenvolvimento (MPD) e das Finanças (MF), que preparam as propostas finais para o orçamento anual e o Cenário Fiscal de Médio Prazo (CFMP). O relatório tem por objectivo fornecer as informações básicas necessárias para debates orientados para a estratégia e negociações entre os ministérios sectoriais e os ministérios de coordenação, e para a tomada de decisões certas e informadas no processo da arbitragem. Também fornece informações sobre os aspectos que devem estar no centro dessas discussões, tais como a esperada eficácia da despesa do subsector, a sua importância para o crescimento económico e redução da pobreza, bem como a composição das despesas, especialmente no que diz respeito aos bens públicos versus privado. Este AgPER também é orientado no sentido de aumentar o nível de informação e conhecimento dos doadores que estão a apoiar o sector, através do fundo comum do PROAGRI e/ou actividades baseadas em projectos.

O AgPER é resultado de um esforço de colaboração entre várias instituições. Os principais intervenientes foram o MINAG e o MP, o Sistema Regional de Suporte à Análise Estratégica e Conhecimentos para África Austral (ReSAKSS), uma equipe da Universidade Estadual de Michigan (MSU), a Delegação Europeia em Moçambique, a Agência Americana para o Desenvolvimento Internacional (USAID) e o Banco Mundial. Estas instituições foram reagrupadas sob o Grupo de Trabalho do AgPER liderado pelo MINAG, que também incluiu o MPD, o MF e os representantes dos doadores, e foi criado para fornecer orientação e "feedback" frequentes sobre o progresso dos resultados intermédios durante a elaboração do AgPER.

Alinhada com a definição recomendada pelo NEPAD, o foco deste AgPER está na Agricultura, no sentido mais lato, que inclui culturas, pecuária, pescas e silvicultura. Esta definição segue amplamente a classificação internacional das funções do governo COFOG (que não faz uma distinção entre doações e empréstimos e subsídios, desde que sejam financiadas por fundos públicos). Nesse contexto, este AgPER toma em conta as despesas na irrigação em grande escala.

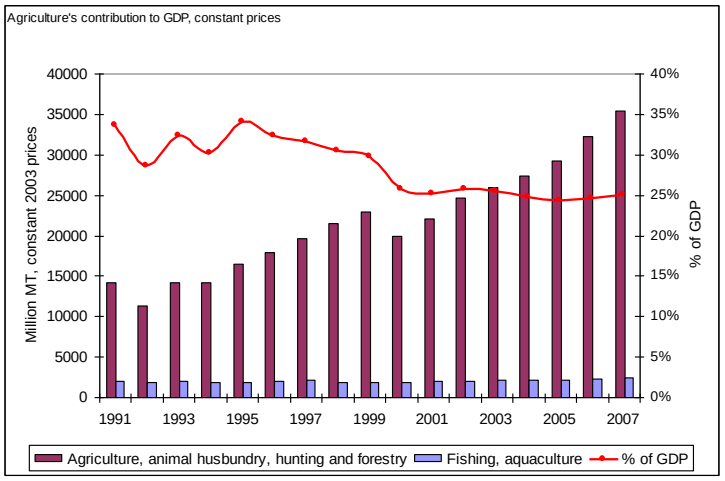
Além disso, para o propósito do presente exercício, assumiu-se que, a partir de 2007 em diante, 50 por cento do Orçamento de Investimento em Iniciativa Local destinado

aos distritos para apoiar projectos económicos locais (OIIL, também referido como os "7 milhões") é aplicado na agricultura. Os "7 milhões" referem-se a uma linha orçamental de investimento alocada aos distritos para a produção de comida e geração de renda, a qual é usada para fornecer crédito de investimento para actividades económicas locais, inicialmente atribuída no valor de 7 milhões de Meticais para cada distrito. Embora ainda não estejam disponíveis dados consistentes sobre a sua utilização, as evidências episódicas e entrevistas sugerem que provavelmente até mais do que os assumidos 50 por cento desta linha orçamental podem, na verdade, ser atribuídos as actividades agrícolas.

As deficiências e incoerências nos dados disponíveis constituem um dos principais constrangimentos do presente AgPER, tal como é frequentemente em trabalhos sobre a despesa pública. Isto resultou na impossibilidade de desagregar os dados por subsectores – produção agrícola, pecuária, terras e florestas. Além disso, nota-se frequentemente que diferentes sistemas de contabilidade produziram informação conflituosa. Mais ainda, dados dispersos e incompletos sobre o investimento privado não permitiram tirar conclusões específicas sobre o investimento privado na agricultura.

A agricultura no contexto da economia nacional

Cerca de 25 por cento do PIB provêm da agricultura (culturas, silvicultura, pecuária) e das pescas, que representam a principal fonte de rendimento para cerca de 80 por cento da população. O contributo da agricultura para o PIB total tem sido bastante estável, apesar do aumento de novas indústrias baseadas em recursos naturais desde cerca do ano 2000 (ver Figura 12 no texto principal para as notas e explicação adicional do gráfico). No período 2001-07, o crescimento real anual teve uma média de 8,2 por cento. No entanto, a produção cerealífera estabilizou-se após o êxito da recuperação da guerra civil (que terminada em 1992). Duas séries de dados sobre a produção de cereais mostram tendências diferentes, e a que tem um valor baixo de produção e de crescimento é provavelmente a mais correcta.



A agricultura em Moçambique é dominada por pequenos produtores, apesar de existirem algumas grandes empresas no sector do açúcar e outros menores para outras culturas de rendimento. A produção de cereais está concentrada na região Norte e na parte norte das províncias centrais, que são igualmente as áreas mais povoadas.

A produção per capita rural de cereais permaneceu essencialmente constante ao longo dos últimos dez anos e o uso de tecnologias melhoradas (fertilizantes químicos, pesticidas, tracção animal ou motorizada, e irrigação) continua abaixo das médias regionais. Isto sugere que há um potencial significado inexplorado capaz de aumentar a produção e a produtividade da terra e da força de trabalho. Poucos pequenos produtores

usam insumos modernos. Menos de 5 por cento utiliza fertilizantes químicos ou pesticidas. O uso de sementes melhoradas é limitado (10 por cento para o milho, 3 por cento para arroz), embora pouco mais de 10 por cento dos pequenos produtores utilizem tracção animal. O uso da irrigação tem vindo a crescer desde 2005, mas as informações sobre as áreas irrigadas são insuficientes para tirar conclusões. A produtividade da terra para cereais como o milho, mexoeira e mapira é significativamente mais elevada no Norte do que no Sul do país. Mesmo no Norte, está muito abaixo da média regional. A produtividade per capita rural na produção de alimentos permaneceu praticamente constante, em cerca de 600 kg per capita rural nos últimos 20 anos, com uma tendência ascendente em 2006 e 2007 que, porém pode não ser mais do que um reflexo da fragilidade dos dados.

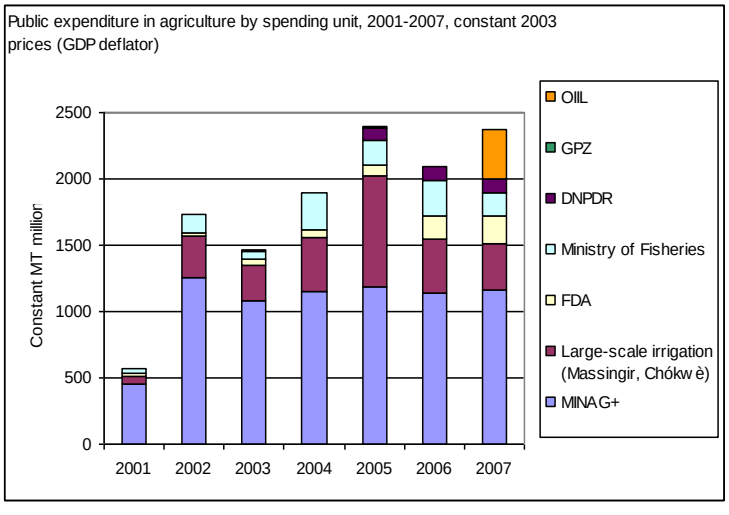
Em meados de 2008, o Governo aprovou o Plano de Acção para a Produção de Alimentos (PAPA), como uma resposta directa à subida de preços dos cereais em 2007/08, que constituiu uma nova preocupação em relação à auto-suficiência alimentar do país. O PAPA, válido por três épocas, prevê, entre outros, substanciais investimentos públicos em silos (a fim de assegurar o armazenamento para o aumento de produção de milho) e irrigação (principalmente para aumentar a produção de arroz). É financiado parcialmente a partir de recursos internos, mas os doadores são chamados a cobrir 90 por cento do seu custo, através da ajuda adicional ao desenvolvimento.

Despesa pública na agricultura: situação actual

A análise da despesa pública na agricultura baseia-se principalmente nos dados provenientes da contabilidade pública, apresentados na Conta Geral do Estado (CGE), complementadas por informações obtidas a partir de alguns projectos (em que apenas parte de um ministério ou instituto é considerada como despesa na agricultura) e de relatórios financeiros do Fundo de Desenvolvimento Agrário (FDA). Ao olhar para as despesas totais, foi tomado em conta também 50 por cento dos fundos alocados aos distritos para estimular as actividades económicas locais (OIIL, os "7 milhões").

Em geral, Moçambique não subsidia insumos agrícolas a semelhança de alguns países vizinhos. Por isso, as despesas em bens privados são limitadas. Ainda assim, é importante considerar que os "sete milhões", as despesas do FDA, e uma grande parte das despesas no caju - uma das principais culturas de rendimento tradicionais para os pequenos produtores - são bens e serviços que, em princípio, o mercado pode oferecer. Mas a situação está prestes a mudar, tendo em conta as metas do PAPA, onde o fornecimento de insumos altamente subsidiados, principalmente de sementes e fertilizantes, está previsto a fim de acelerar a adopção de tecnologias modernas pelos produtores que produzem culturas contempladas.

A despesa pública total real na agricultura e pescas tem flutuado, especialmente por causa de volumosos investimentos em sistemas de irrigação de grande escala na província de Gaza. A despesa total nominal ascendeu a 3.281 milhões de MT ($127 milhões de dólares Americanos) em 2007,



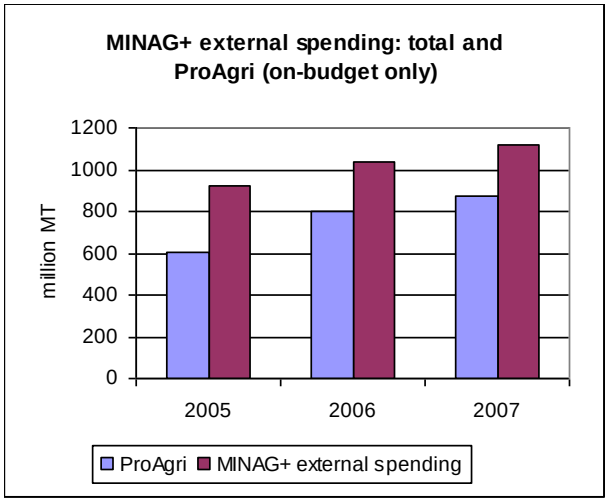
incluindo 50 por cento dos "sete milhões", e 2,773 milhões de MT ($107 milhões de dólares Americanos) excluindo os "7 milhões". As despesas do MINAG, incluindo as direcções provinciais e institutos subordinados (excluindo o FDA: ver abaixo), têm sido relativamente estáveis desde 2002, sem uma clara tendência (ver Figura 13 no texto principal para as notas e explicações). No entanto, mesmo sem tomar em conta o regime de irrigação em grande escala, as despesas reais aumentaram de 2005 a 2007 devido ao aumento das despesas pelo FDA e o aparecimento do OIIL.

As despesas das fontes internas (receitas internas e apoio orçamental geral) pelo MINAG e MP e institutos (mas excluindo o FDA) também estiveram mais ou menos estagnadas. No entanto, se o aumento da despesa do FDA em 2006 e 2007 for considerado, há uma clara tendência ascendente. Os gastos do FDA representaram, em 2007, 36 por cento da despesa total de recursos internos pelo MINAG e seus institutos (incluindo as províncias, mas sem considerar o OIIL). Maior ênfase na agricultura, nos anos 2008 e 2009 levou a um aumento substancial das verbas para o MINAG e do Instituto de Investigação Agrária nos orçamentos desses dois anos a partir de fontes internas.

Em 2007, cerca de 41 por cento das despesas do MINAG e seus institutos (incluindo o FDA, sem considerar o OIIL) é de recursos internos, com fundos externos programados constituindo o resto. Uma grande parte dos fundos externos é gerida pelo MINAG central, que controla 47 por cento do total das despesas. Mas apenas 14 por cento das despesas de fontes internas é que são controladas centralmente se tomarmos em conta apenas o MINAG central e as direcções provinciais da agricultura.

O FDA gastou mais do dobro das fontes internas relativamente ao nível central do MINAG (excluindo os institutos). As actividades do FDA são financiadas por receitas próprias recolhidas pela administração agrícola, sendo as taxas e multas florestais a principal fonte. O FDA esteve *off-budget* até 2008; este passou a figurar no orçamento a partir de 2009 em diante. As suas despesas são em parte em bens públicos e em parte em bens privados, sem a possibilidade de fácil classificação.

O peso do financiamento através do fundo comum PROAGRI no total das despesas registadas contra as fontes externas é alto. O gráfico, baseado nos dados da CGE, refere-se apenas aos gastos do MINAG e seus institutos, excluindo assim a irrigação de grande escala e as despesas no sector das pescas.



Não é possível desagregar as despesas por função. Isto é devido a uma série de razões: o sistema de contabilidade pública classifica as despesas por instituição, mas não por subfunção ou direcções. O sistema contabilístico Arco-Íris classifica as despesas por componentes, que são semelhantes às subfunções, mas apenas para uma parte relativamente pequena das despesas. As despesas de funcionamento não são desagregadas por componentes, e três quartos das despesas de investimento (despesa atribuída a projectos, que contêm muitos elementos de despesas correntes, bem como rotineiras) são classificados como de apoio

institucional ou despesas comuns, ou seja, despesas gerais que, por motivos diversos e muitas vezes legítimos, não foram classificadas como contribuindo directamente para a produção de serviços prestados para a comunidade agrícola. A descrição por função só é possível nos casos de investigação agrária e das pescas, uma vez que estas funções coincidem com uma unidade de despesa com o seu próprio código orgânico.

As taxas de execução orçamental estiveram em cerca de 80 por cento no passado, mas o valor exacto varia de acordo com a instituição e a fonte de fundos. A maioria das causas sistémicas da baixa execução orçamental foi removida com a introdução do e-SISTAFE (sistema integrado de contabilidade e de pagamento com vista a implementação dos princípios descritos na legislação sobre o Sistema de Administração Financeira do Estado (lei e regulamentos) e da abolição da antigo sistema de realização de pagamentos antecipados às unidades de despesas. Três causas permanecem: (1) processos de aquisição ("*procurement*") complicados e morosos, (2) a necessidade de fechar as contas de um ano antes de começar a gastar o orçamento do ano seguinte, e (3) atrasos no desembolso de fundos externos. As regras de aquisição (*"procurement"*) estão em revisão, e pode se esperar que as modificações ainda pendentes irão acelerar os processos. Atenção contínua tem de ser dada para o cumprimento com as condições de desembolso de vários doadores.

Nível de despesas na agricultura: é adequado?

O contributo da agricultura para o PIB está a crescer e as despesas como percentagem do PIB agrícola são elevadas comparativamente a outros países da África. O crescimento do PIB da agricultura tem sido regularmente acima dos 6 por cento que é a meta a atingir no contexto das estratégias do NEPAD. As despesas *off-budget* adicionam outro terço das despesas públicas registadas em orçamentos e relatórios financeiros. Incluindo este montante estimado, a despesa pública na agricultura representa cerca de 7,7 por cento do PIB da agricultura e pescas, um valor elevado comparativamente à região.

Se Moçambique tivesse que cumprir com a meta declarada pela União Africano (UA), as despesas públicas no sector da agricultura e das pescas teria quase que duplicar. A despesa pública em 2007, incluindo metade da rubrica orçamental dos "sete milhões", a despesa com a irrigação em larga escala e os fundos canalizados através do FDA, ascendeu a 4,6 por cento da despesa total e 5,6 por cento das despesas das instituições públicas (isto é, excluindo o serviço da dívida, pensões, operações financeiras etc.). Uma vez que a meta da UA foi definida como *percentagem* da despesa total, o peso de alguns outros sectores precisaria de ser reduzido. Apesar dos planos para aumentar a despesa pública, a fim de aumentar a produção cerealífera, o impacto sobre a alocação aos sectores da agricultura e pescas não é significativo.

Despesa pública na agricultura relacionada com o orçamento total do governo

										million MT
		2001	2002	2003	2004	2005	2006	2007	2008b	2009b
(1)	Agriculture spending excl. OIIL	504	1,655	1,470	2,040	2,795	2,679	2,773	4,434	5,195
(2)	Agriculture spending incl. OIIL	504	1,655	1,470	2,040	2,795	2,679	3,281	4,945	5,728
(3)	Total expenditure	24,289	29,124	28,294	31,630	40,719	48,274	60,293	87,098	102,705
(4)	Institutional expenditure	11,600	17,487	21,004	25,030	31,812	38,904	49,288	73,038	88,080
	Agriculture excl. OIIL as of									
	Total expenditure	2.1%	5.7%	5.2%	6.5%	6.9%	5.6%	4.6%	5.1%	5.1%
	Institutional expenditure	4.3%	9.5%	7.0%	8.2%	8.8%	6.9%	5.6%	6.1%	5.9%
	Agriculture incl. OIIL as of									
	Total expenditure	2.1%	5.7%	5.2%	6.5%	6.9%	5.6%	5.4%	5.7%	5.6%
	Institutional expenditure	4.3%	9.5%	7.0%	8.2%	8.8%	6.9%	6.7%	6.8%	6.5%

Ver Tabela 8 no texto principal para fontes e notas.

A despesa na investigação agrária (sem a investigação no domínio das pescas) equivale a aproximadamente $6 milhões de dólares americanos (MT 140 milhões) por ano, cerca de 4,1 por cento das despesas registadas na agricultura e nas pescas. Excluindo os projectos de irrigação de grande escala e os fundos de investimento local, a investigação agrária ainda constitui apenas 6 por cento da despesa pública no sector. As despesas de investigação representam 0,24 por cento da contribuição da agricultura para o PIB, o que é considerado um baixo nível de despesa. Nenhuma desagregação dos dados por área de investigação (culturas, pecuária, silvicultura) ou do tipo de investigação (de raiz ou adaptativa, multiplicação de sementes básicas, serviços laboratoriais e testagem) está disponível.

As disposições do PAPA em matéria de investigação não são susceptíveis de alterar significativamente as despesas de investigação na agricultura. Embora o PAPA preveja fundos adicionais para a investigação agrária, para cada uma das culturas que aborda, a despesa de investigação está concentrada em duas culturas: arroz e batata-reno. Assim, o PAPA não vai aliviar o problema do subfinanciamento da investigação para as culturas que são de particular relevância para a população rural.

Existe margem para aumentar as despesas de uma forma eficiente, especialmente em áreas-chave e no domínio da tecnologia agrícola e de inovação. No entanto, a eficácia da despesa adicional precisa de ser demonstrada, e é preciso avaliar os benefícios e custos de acções na agricultura com as alternativas de investimento em estradas, comércio e sectores sociais, numa avaliação que não pode ser técnica apenas no contexto da *AgPER*.

Qualidade da despesa

Atenção especial deve ser dada para a qualidade dos gastos, particularmente se a despesa pública na agricultura tiver que ser aumentada. "Qualidade" refere-se, em particular, ao conjunto de bens públicos e privados, mas também à relação entre a despesa no sector da agricultura e as despesas em serviços públicos complementares, tais como estradas, instalações de armazenamento, mercados e finanças rurais.

Pouco pode ser dito sobre a qualidade e a eficácia da despesa pública do passado e do presente na agricultura a partir dos dados e informações recolhidos. Dois factores inibem uma análise detalhada: falta de informação sobre o impacto dos serviços e falta de informação sobre os respectivos custos. Será lançada em breve uma auditoria "Value for Money", a qual deverá dar mais luz sobre este aspecto crucial. Deve ser implementado um

sistema de monitoria, que enfatiza os efeitos imediatos e a médio prazo da despesa promocional. Isto é crucial não só para fins internos, mas também para colocar o MINAG em melhor posição para angariar fundos junto dos ministérios responsáveis pela planificação e finanças, bem como com os doadores.

Há indicações de fraco desempenho nas funções nucleares essenciais da administração pública agrícola. A cobertura dos serviços de extensão é muito baixa. Está patente nos relatórios de actividades que algumas actividades fundamentais, tais como os inspecção dos produtores de sementes e campanhas de vacinação, não podiam ser realizadas como previsto, porque os fundos, embora orçamentados, não estavam disponíveis, pois as prioridades haviam mudado. A distinção entre as funções nucleares e as actividades promocionais é feita em planos, mas não se reflecte nos orçamentos. A marginalização das funções nucleares por meio da definição de prioridades que promovam motivos políticos de curto prazo deve ser evitada.

A eficácia da despesa permanece pouco clara no que diz respeito à verba orçamental para o OIIL. Os 50 por cento desta despesa, que neste estudo foi assumida como beneficiar directamente as actividades agrícolas, foram significativamente maiores do que a despesa do MINAG e seus institutos, a nível central e local, a partir dos fundos do tesouro geral (isto é, excluindo os despesas financiadas por receitas próprias). Isto foi corrigido em 2009 por meio de um forte aumento da alocação para o MINAG. Mas o peso do fundo de investimento nos distritos continua substancial.

O padrão espacial das despesas nas Direcções Provinciais da Agricultura parece gravemente distorcido e não parece ter uma explicação lógica. Independentemente da referência, os gastos nas duas províncias mais populosas, Zambézia e Nampula, que são cruciais para a produção de cereais em Moçambique, apresentam baixos níveis de gastos em comparação com as outras províncias. Os gastos per capita rural e das despesas por exploração agrícola foram utilizadas como referências. Os gastos correntes são pré-determinados pela atribuição de limites de orçamentação pelo MPD e MF; a correcção da estrutura regional iria, portanto, exigir uma estreita coordenação entre o MINAG e esses ministérios, no âmbito da planificação de médio prazo, o que resulta na atribuição de limites orçamentais máximos anuais para cada província e direcção. Para os gastos dos projectos, o MINAG tem mais influência sobre a afectação espacial, mas não parece ter estado a usá-lo a fim de compensar e corrigir as disparidades.

Irrigação e investimento privado

As despesas de irrigação são substanciais (773 milhões de MT por ano, em média, 2005-2007), mas muito concentradas na irrigação de grande escala na província de Gaza. A barragem de Massingir e o sistema de irrigação de Chókwè têm sido afectados por problemas técnicos e foram também gravemente afectados pelas cheias de 2000.

Os sistemas de irrigação de pequena escala foram analisados com maior profundidade no contexto do presente AgPER. Várias lições importantes podem ser aprendidas a partir desta análise. O período entre a planificação inicial e a conclusão é tipicamente de 3 - 4 anos, sendo o *procurement* e a aprovação dos contratos públicos as etapas que levam mais tempo. No entanto, não seria aconselhável reduzir a diligência na fase preparatória. O estudo identificou vários casos em que a disponibilidade de água não

foi devidamente avaliada, onde a posse da terra não foi esclarecida ou os parâmetros socio-económicos não foram suficientemente analisados, levando a dificuldades de fazer pleno uso dos sistemas de irrigação com suficiente rapidez. É também importante adaptar os parâmetros técnicos dos equipamentos de bombagem à localização exacta; caso contrário, o consumo de energia será desnecessariamente elevado. Portanto, as bombas não devem ser compradas para posterior distribuição, sem conhecer os volumes de bombeamento e os níveis de elevação necessários no momento da compra. Há indicações de subutilização, ao mesmo tempo que não há nenhuma evidência da análise económica a ser realizada como parte da elaboração de projectos. Recomenda-se que se olhe para a viabilidade do sistema planificado também como forma da aplicação de instrumentos-padrão de análise económica, a fim de avaliar se o investimento poderia fazer sentido económico e se podem ser razoavelmente esperados os necessários aumentos da produção a serem realizados.

Informações sobre o investimento privado na agricultura são escassas e parciais. Fontes disponíveis registam investimento planificado autorizado, mas não fazem o seguimento do investimento anual efectivo, ou não fornecem uma desagregação adequada. Praticamente não há informações disponíveis sobre os investimentos realizados em pequenas explorações, uma vez que o TIA não inclui perguntas para este efeito. O investimento privado na agricultura é um importante parâmetro para avaliar em que medida é suficiente para um crescimento sustentável, atirado por melhorias dos serviços públicos agrícolas, e identificar obstáculos aos investimentos de pequenos produtores que possam impedir os níveis adequados de investimentos para o crescimento agrícola sustentável.

Planificação e execução financeira

As dificuldades na obtenção de dados completos e fiáveis e desagregados por funções e programas sugerem que deve ser um desafio para o MINAG em si ter uma visão geral sobre as áreas para as quais os fundos públicos são gastos, tornando muito difícil alinhar os padrões de gastos com as prioridades. De facto, o actual sistema de planificação financeira e orçamentação baseia-se em instrumentos que foram criados para monitorar fundos disponibilizados pelos doadores e canalizados através de um fundo comum, num período em que o sistema de contabilidade geral não esteve em condições de fornecer registos que permitissem a auditoria das despesas. A preparação do orçamento é baseada numa planificação detalhada e consultiva das actividades, a partir do nível da base, mas a planificação feita na base depois precisa de ser consolidada e ajustada ("harmonizada") a fim de assegurar que a despesa se enquadre no envelope de recursos financeiros disponíveis. O sistema é parcial, na medida em que não se incluem alguns fundos dos doadores que não são geridos pelo MINAG, exclui os fundos gastos pelo FDA e abrange apenas as funções nucleares (e não as actividades promocionais).

O sistema interno de contabilidade do MINAG (Arco-Íris) tornou-se um sistema paralelo, com todas as dificuldades para o sincronizar com o novo sistema oficial, o e-SISTAFE. Em teoria, o Arco-Íris tem a vantagem de ser capaz de desagregar as despesas por componentes e subcomponentes. No entanto, na prática, a maioria da despesa está classificada em categorias que se referem a algum tipo de despesas gerais, e apenas uma pequena parte é atribuída aos serviços prestados aos produtores e comunidades.

Um CFMP nacional, que abrange as receitas assim como as despesas em detalhe suficiente, está a emergir e é cada vez mais importante para a determinação dos limites orçamentais. Mas o MINAG não está a aproveitar a oportunidade para angariar maiores verbas orçamentais, através da submissão de planos bem fundamentados. O CFMP não está integrado no sistema de planificação financeira das instituições agrícolas. O MINAG deve prontamente aproveitar esta oportunidade de utilizar o processo de elaboração do CFMP para operacionalizar as prioridades internas entre programas, componentes e departamentos.

Seria oportuno desenvolver as ideias que estavam por detrás da concepção do sistema de planificação do MINAG há dez anos atrás e ainda ajustar a configuração para o novo contexto. Isto implica: uma definição concreta de uma estrutura programática das despesas de todo o MINAG; instauração de processos internos para a priorização e arbitragem em torno da planificação financeira a médio prazo; esforços (que estão em curso) para fazer uso das funcionalidades do e-SISTAFE, a fim de introduzir e utilizar uma classificação programática que corresponda às necessidades de gestão estratégica e operacional do MINAG e permita a eliminação progressiva do sistema paralelo actualmente em utilização; e a utilização da planificação participativa das actividades essencialmente para a finalidade de decidir quais as actividades a realizar a luz do envelope financeiro aprovado, em vez de começar com uma compilação das necessidades que não são susceptíveis de se encaixar em verbas orçamentais.

Recomendações

O AgPER propõe olhar cuidadosamente para alguns aspectos que poderiam melhorar a eficácia das despesas e também garantir que os pedidos para níveis mais elevados de financiamento tenham consideração favorável. Em virtude das diversas instâncias de coordenação e de planificação que existem, não se fornece aqui um plano de acção e matriz em si. As recomendações, portanto, devem ser interpretadas como sugestões de temas e soluções que devem ser tidas em conta em fóruns adequados. As recomendações, que são definidas em pormenor no Capítulo 5 do relatório principal, são as seguintes:

(1) **Desenvolver ainda mais o sistema de planificação e gestão financeira** a fim de se proporcionar um espaço adequado para a consideração de opções estratégicas, tendo em conta as suas implicações financeiras e o impacto esperado. O MINAG deve proporcionar significativas contribuições para o CFMP nacional; a planificação de médio prazo também deve ser usada como uma oportunidade para verificar e ajustar o padrão de despesas no MINAG e seus institutos e direcções provinciais.

(2) **Desenhar uma estrutura adequada de programas e subprogramas** que pode ser utilizada para todos os aspectos de planificação e gestão financeira.

(3) **Incluir o Fundo de Desenvolvimento Agrícola (FDA)** em todos os exercícios de planificação.

(4) Assegurar que as **funções nucleares nos serviços públicos agrários** não sejam marginalizadas pela provisão de bens privados no contexto do PAPA. A planificação de médio prazo seria a abordagem mais adequada.

(5) Rever e ajustar **o padrão espacial de verbas orçamentais**. Para o efeito, deve ser desenvolvida uma referência baseada numa fórmula, a qual tem de ser apresentada e discutida com o MPD, para que os tectos orçamentais para as direcções provinciais possam ser definidos de forma mais apropriada.

(6) Apresentar provas do **impacto das actividades desenvolvidas pelo MINAG** sobre os rendimentos rurais e a produção de alimentos.

(7) Apresentar **análises económicas** no contexto dos projectos de irrigação.

(8) **Propõe-se reforçar a complementaridade e as ligações entre o crédito concedido aos produtores, ao abrigo do regime do OIIL e as actividades dos serviços públicos agrários** a fim de maximizar a eficácia para a produção de alimentos e aumento dos rendimentos rurais. Ao mesmo tempo, uma análise aprofundada dos mecanismos administrativos do OIIL pode ser útil para aumentar a eficácia.

(9) **Recolher informação sobre o investimento privado** no questionário do TIA e monitorar a implementação de projectos de grandes investimentos após da sua aprovação.

(10) **Realizar estudos sobre a coerência dos serviços públicos para a agricultura** em áreas seleccionadas (províncias ou distritos). Já foi defendido que o reforço da extensão ou a concessão de crédito continuarão ineficazes na ausência de acesso a mercados e tecnologias apropriadas. Estudos geograficamente focalizados são necessários a fim de definir mecanismos adequados para que os diferentes contributos públicos estejam disponíveis numa combinação adequada.

(11) Preparar um PER separado com profundidade **sobre o sector das pescas.**

Para a próxima auditoria de desempenho (“Value-for-Money Audit”), o AgPER dá, conforme se segue, algumas sugestões para que possa também complementar as informações recolhidas até à data:

- Fazer uma clara distinção entre bens públicos e privados, também porque o "valor" que seria de esperar do "dinheiro" é de natureza muito diferente nos dois casos;
- A nível local (distrito ou província), analisar se a combinação dos serviços prestados pela administração agrícola corresponde às necessidades da comunidade agrícola;
- Analisar em que medida as actividades desenvolvidas pela administração central, provincial e distrital no sector agrícola e os institutos especializados são suficientemente coordenadas de forma a fornecer um pacote com conteúdo adequado adaptado às necessidades da comunidade agrícola numa área geográfica específica;
- Analisar, em particular, a eficácia de curto e médio prazo das actividades promocionais especiais recentemente empreendidas pelo MINAG e seus institutos, e identificar os constrangimentos que têm de ser resolvidos por outras agências governamentais que possam prejudicar a eficácia das actividades de desenvolvimento do MINAG.

1. INTRODUCTION

1.1 Objectives and scope

1. The objective of this AgPER is to provide an assessment of the present situation and to offer recommendations to improve the effectiveness and efficiency of public spending in agriculture in Mozambique. The report provides a sectorwide picture of the magnitude and structure of public spending for agriculture in Mozambique over the past six years, and an overall assessment of the budget process in agriculture. It is intended that this analysis will inform future decisions over priority public expenditures for agriculture and the shifts in expenditure allocations and other measures that are necessary to make the most effective and efficient use of government budgetary resources and donors' contributions in the agriculture sector. The information is also meant to inform the NEPAD secretariat about the level and structure of spending in agriculture in Mozambique, and help the MINAG to report suitable figures to NEPAD.

2. This AgPER examines public expenditure in the agricultural sector over the period 2002–07. Early attempts to start data series in 1998 failed because earlier editions of financial reports do not provide a sufficient degree of detail and have low coverage of spending from external funds for the years before 2002. Based on **the African Union (AU)/NEPAD definition of agriculture**, the analysis **includes crops and livestock, forestry and fishing**, with multipurpose projects considered if the costs allocated to agriculture exceed the threshold of 70 percent of total costs. Fisheries, however, are covered only at the level of global expenditure, and not in the detailed analysis.

3. The review addresses the following main topics:

- overall magnitude and trends in agricultural public expenditures over the past six years, including the distribution of expenditures between the various spending levels (central, provincial, and district levels) and institutions;
- sources of funds, including trends in external and domestic funding of public expenditures in agriculture, and an attempt to estimate the magnitude of off-budget donor funding; and
- economic (capital versus salaries and other current expenditures) and functional composition of expenditures, with an attempt to make a main distinction between expenditures incurred respectively for public investment (e.g., irrigation infrastructure), delivery of public and other services (e.g., research and extension, veterinary services), and transfers (farm subsidies and provision of subsidised or free inputs).

4. The report discusses the budget process in agriculture (budget planning, execution, and reporting) and the linkages between agricultural sector policies and strategy and public expenditures. It suggests possible ways to raise the effectiveness and efficiency of current public spending in agriculture, with a view to enhancing its contribution to Mozambique's economic growth and poverty reduction objectives. An analysis of the spatial pattern of expenditure is also provided. Some emphasis is placed on the adequacy of data sources and

planning, and on the budgeting procedures necessary in order to continuously align expenditure to objectives, and to maximise their impact.

5. The report also draws some broad conclusions with regard to key options of agricultural policy on the basis of the data collected and available information on the relationship between costs and effects of selected activity strata.[1]

1.2 Structure of the report

6. The report is structured as follows. The following chapter, Chapter 2, sets the scene. It provides basic information about agriculture in Mozambique, highlights current challenges and recent policy responses, and gives the international context of the debate about appropriate agricultural policies that have also influenced the policy response in Mozambique.

7. Chapter 3 provides a general analysis of public expenditure in the agriculture sector. It looks at the evolution of overall spending, sources of funds, spending by institutions (which can be considered as channels through which public services are provided), and by function to the extent that this is possible.

8. On this basis and with a knowledge of broad levels and structure of public spending, the challenges and policy responses from Chapter 2 are taken up again in Chapter 4. It starts with a list of pertinent issues that arise from Chapters 2 and 3. The remaining sections deal with some of them in greater depth. The detailed analysis starts with the question of whether spending in agriculture is too low, using different references, including the target set out in the Maputo Declaration of the African Heads of State in 2003. It then takes a critical view of existing procedures for financial planning and budgeting procedures and instruments in use in the MINAG. Starting from the observation of disparities between data series and insufficient analytical depth, it suggests further development of the ideas that were behind the introduction of activity planning and the sector's accounting software so that better use can be made of the now improved general public accounting system and the medium-term planning exercises.

9. Still in Chapter 4, a summary of the findings of two separate studies that were undertaken in the context of the AgPER exercise are presented, on private investment in

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[1] The current AgPER deviates slightly from the work originally planned and discussed at concept stage. The spatial analysis, initially planned as a separate volume, has been integrated into the core report (i.e. Volume I). A Volume IV – MINAG Toolkit to Analyze Agriculture Expenditures – had initially been envisaged, but was not further pursued since the World Bank and IFPRI are currently developing a general AgPER guide.

Furthermore, it was planned initially to analyze the period 1998 through 2007. After a closer look at available data, however, it became apparent that, up to 2001, the public accounting system did not attribute the bulk of spending against external sources to sectors. Therefore, the core analysis starts only in the year 2002.

The scope was expanded against what was originally planned in two areas. First, the budgets for 2008 and 2009 were used for some parts of the analysis, in order to identify recent trends and see how recent policy initiatives are influencing spending in agriculture. Second, a more detailed breakdown by institutions belonging to the overall MINAG system is analysed in depth in parts of this AgPER.

the sector and on small-scale irrigation. **The full studies appear as Volumes II and III of this AgPER.** The chapter is concluded by a discussion of funding for agricultural research and the spatial pattern of expenditure in agriculture and the disparities that emerge from a more detailed analysis.

10. The report has two annexes. Annex 1 provides a description of procedures and instruments in use in the MINAG for planning, budget preparation, and recording of expenditure. It also contains a description of how these fit into the national systems. Detailed data on public expenditures are provided in Annex 2, which also includes a description and characterisation of institutions and data sources.

2. CURRENT SITUATION, CHALLENGES, AND STRATEGIES FOR GROWTH IN AGRICULTURE

2.1 Current situation of the sector

2.1.1 General context

11. The agricultural sector in Mozambique had been affected considerably during the destabilisation period (at times referred to as "civil war") between around 1980 and 1992, when fighting ravaged rural areas, in particular. After the peace agreement of 1992 between the RENAMO and the FRELIMO government, the displaced population has steadily returned to rural areas, and fields abandoned during the war have again been cultivated. Subsequently, agricultural production has increased significantly, although mainly by way of expansion of cultivated areas and not—or very little—due to increases of productivity per hectare. The return of the population is completed, and most infrastructure has been restored. Only the recovery of irrigation schemes is still ongoing.

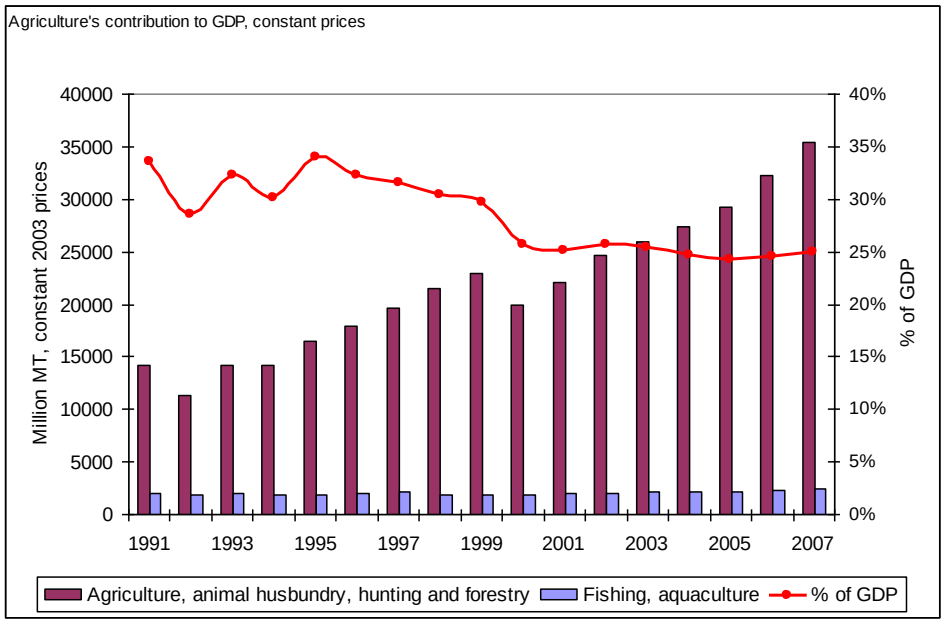
12. Animal restocking was a particular challenge. With the help of public and nongovernmental organizations (NGO) interventions, the animal population has largely recovered at this time.

13. Most agricultural activity in Mozambique is smallholder or peasant farming. Large commercial farms generally were abandoned after independence in 1975, but even before that time they contributed insignificantly to food production. In recent years, cash crops have gained weight, though, particularly in the areas of sugar (foreign-owned and managed plantation, partly with outgrower schemes), cotton (smallholders), tobacco, and bananas. Cashew has traditionally been an important cash crop for smallholders, particularly in the central and northern provinces, and production is again growing.

2.1.2 GDP contribution of agriculture

14. The real contribution of agriculture and fisheries to GDP has increased consistently over the past 15 years, with the exception of the year 2000 when production was severely affected by floods and cyclones (Figure 1). Agriculture contributes a stable 25 percent to GDP; the stability of the share over the period 2001–07 is noteworthy in view of the fast increases of the production of nonagricultural megaprojects (Mozal, Pande Gas, and Cahora Bassa). In other words, agriculture growth has been quite similar to overall growth of the economy. The fisheries sector, on the other hand, has been stagnant up to 2002 and grown modestly between 2002 and 2007, with an overall growth of 25 percent in this latter period.

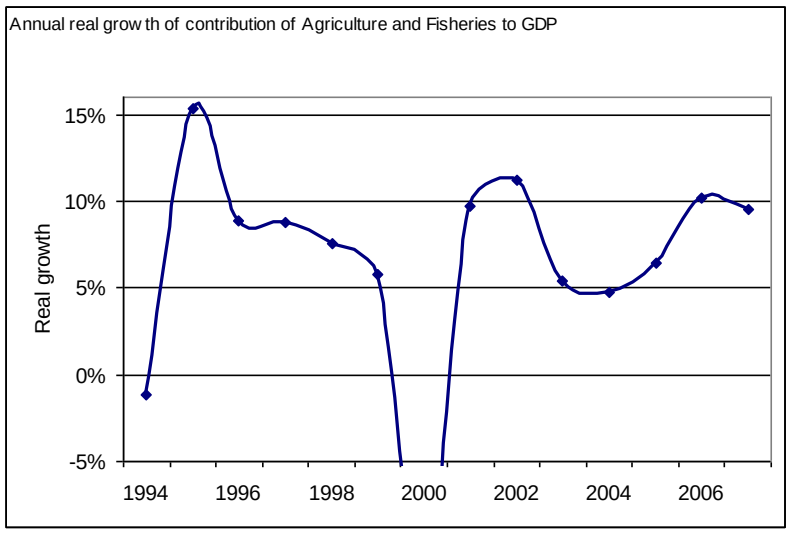
Figure 1: Evolution of real contribution of agriculture and fisheries to GDP, 1991–2007



Source: AgPER Team, based on data from the National Institute of Statistics (Instituto Nacional da Estatística; INE).

15. Annual growth averaged 6.4 percent from 1996 to 2007, and 8.2 percent from 2001 to 2007 (Figure 2). Although part of the expansion is due to the revival of sugar production and some other cash crops, there has also been a steady increase in the production of major food crops and cashew, the traditional cash crop of smallholders. But different data sources provide quite different pictures about how much has been produced.

Figure 2: Annual growth of broad agriculture GDP, 1994–2007



Annual growth rates:

1992	-19,3%
1993	23,0%
1994	-1,1%
1995	15,3%
1996	8,9%
1997	8,8%
1998	7,5%
1999	5,8%
2000	-11,8%
2001	9,7%
2002	11,2%
2003	5,4%
2004	4,8%
2005	6,5%
2006	10,2%
2007	9,6%

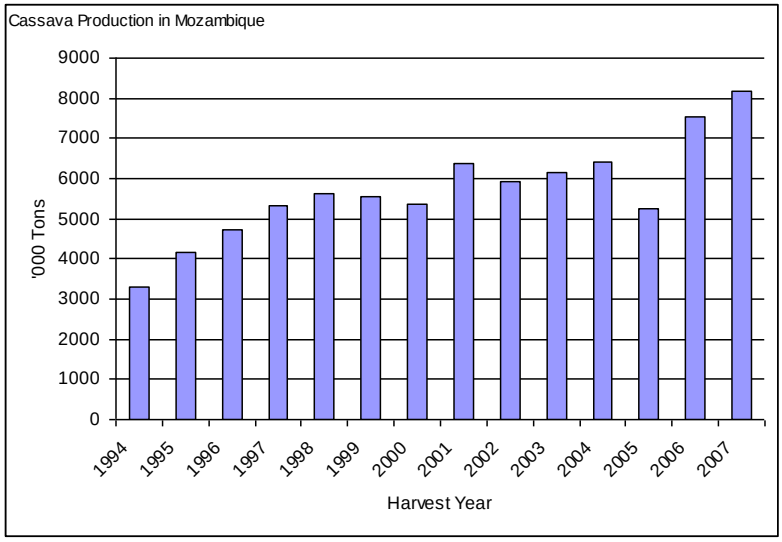
Source: AgPER team, based on data provided by INE.

2.1.3 Crop production

16. Mozambique's food production, largely carried out in small land plots, is dominated by roots and tubers (especially cassava), cereals (maize, millet, sorghum and to some extent rice), groundnuts and pulses. Most food staples are for own consumption; only marginal surpluses are sold in local markets.

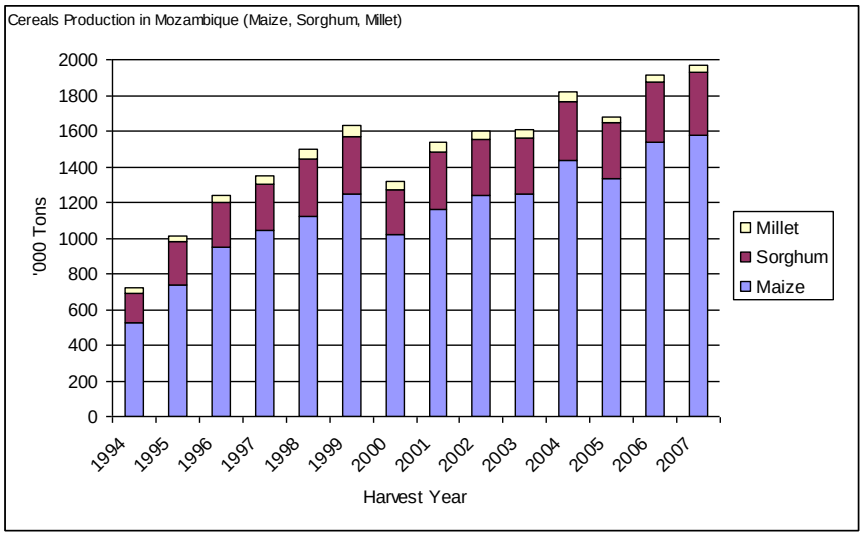
17. The main data source for production data, and the only one with longer time series, is the Early Warning System (Aviso Prévio), for which preharvest data are collected by staff of the MINAG. Figures 3 and 4 show the evolution of cereal and cassava production since 1994 (i.e., very shortly after the end of the war).

Figure 3: Cassava production, 1994–2007



Source: AgPER Team, based on data of the Early Warning System department in National Directorate of Agrarian Services (Direcção Nacional de Serviços Agrários; DNSA)/MINAG.

Figure 4: Cereal production (maize, sorghum, millet), 1994-2007



Source: ApPER Team, based on data of the Early Warning System department in DNSA/MINAG.

18. The combined production of maize, sorghum, and millet more than doubled from 1994 to 1999, while production of cassava grew less, but still significantly. The year 2000 was the year of the big floods, with resulting production losses. Since 2001, production has continued to grow, but at a lesser rate. Growth comes almost exclusively from maize, while millet production declined (Table 1).

Table 1: Selected cereal crops, 2001–07

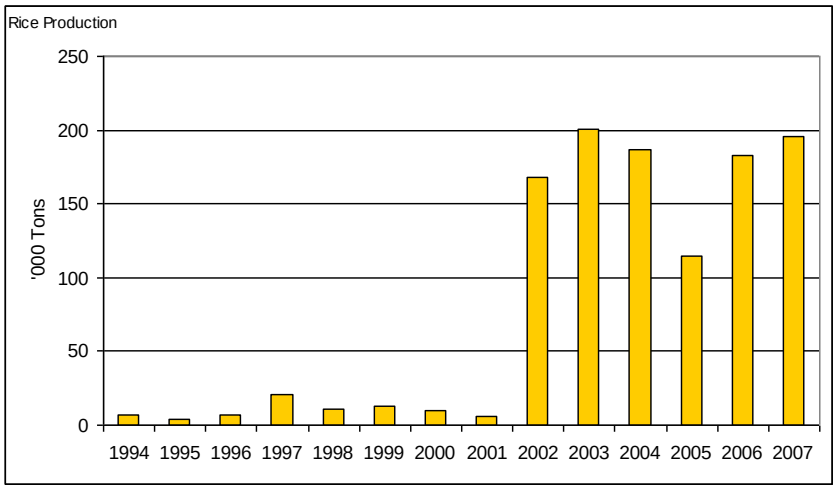
(thousand tons)

Crop	2001	2002	2003	2004	2005	2006	2007
Maize	1,158	1,236	1,248	1,435	1,332	1,534	1,579
Sorghum	321	314	315	331	315	339	348
Millet	62	49	48	51	35	43	45
TOTAL	1,541	1,599	1,611	1,817	1,682	1,915	1,972

Source: Early Warning System department in DNSA/MINAG.

19. Data on rice production appear to be incomplete until 2001, which explains the low level shown in Figure 5. No clear trend is discernible during the period 2002 through 2007. In 2007, Zambézia, Nampula, Sofala, and Cabo Delgado together produced 174,000 out of a total of 196,000 tons. Gaza, with the Chókwè scheme only partially recovering from the damage of the 2000 floods, produced a mere 11,700 tons.

Figure 5: Rice production, 1994–2007

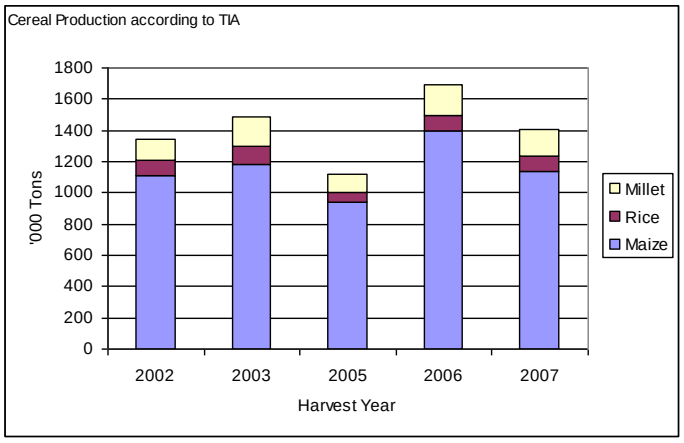


Source: AgPER Team, baased on data of the Early Warning System department in DNSA/MINAG.

Note: The low production figures before 2002 are presumably due to a unit error.

20. Since 2002, an annual agricultural survey called TIA is the source of a second series of data. A different story transpires from these data (Figure 6).

Figure 6: Selected cereal production according to TIA, 2002–07



Source: AgPER Team, based on data of the TIA survey of MINAG/Directorate of Economy (Direcção de Economia; DE).

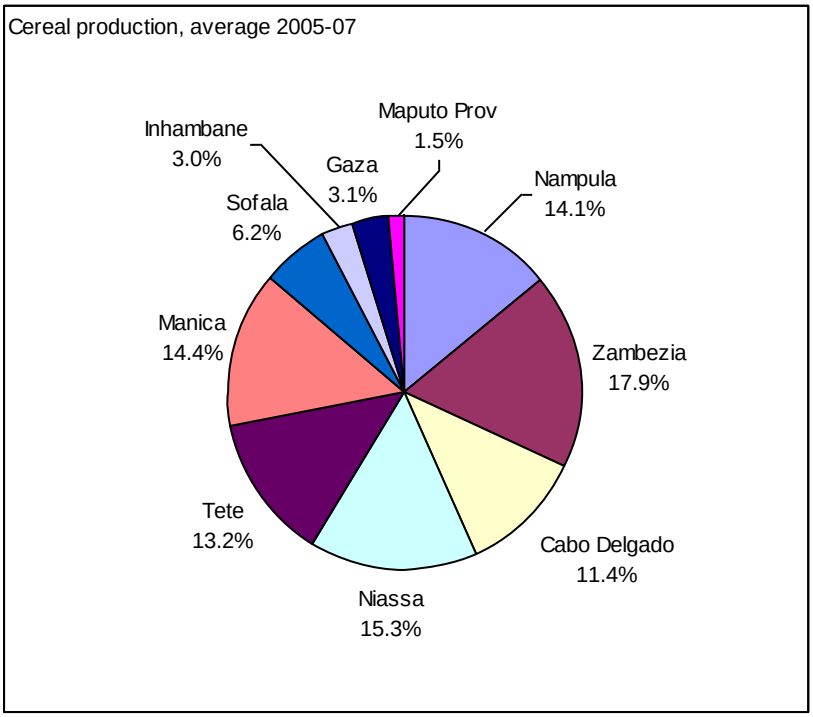
21. It is striking that the level of production from the two sources is quite different (the TIA data are lower), and that the trend since the drought year 2005 until 2007 shows clearly upwards according to the Early Warning System data, but is mixed, according to the TIA.

22. It is noteworthy that the differences, although they have been discussed and studied, do not have a clear explanation. The issue has provoked a detailed analysis of methodologies in the context of a commissioned study. It takes note that the TIA series are based on a more adequate sample. As of now, the recommendations of this study have not yet been implemented. **This implies that it is not possible to say at what rate**

production has been growing in recent years. Since the GDP data are based on the Early Warning System series, the uncertainty might also apply to these data.

23. Most of cereal crops (maize, millet, sorghum, excluding rice) are produced in the four northern and northern-central provinces, Niassa, Cabo Delgado, Zambézia, and Nampula (Figure 7). Together, these provinces are the source of 58.7 percent of national production (average 2005–07), with a share of these provinces' population (urban and rural) in the total population of Mozambique only 52.5 percent (according to the 2007 Census). In addition to supplying domestic markets, the two provinces Zambézia and Nampula play a critical role in regional cross-border trade. Empirical evidence suggests that Zambézia alone accounts for more than half of Mozambique's informal exports, mainly those going to Malawi.

Figure 7: Cereal production (maize, millet, sorghum) by province, average 2005-07



Source: AgPER Team, based on data of MINAG/DSA, Early Warning System.

24. Cassava production is mainly concentrated in Cabo Delgado, Zambézia, and Nampula provinces, which provide 87.5 percent of national cassava production (average 2005–07).

25. Studies on food production and marketing in Mozambique suggest that a substantive proportion of rural households in central and southern Mozambique participate in markets as net buyers, especially in drought seasons. Large-scale domestic milling industry (e.g., maize) in Maputo relies almost entirely on imported maize, as a result of problems with quantity, supply regularity, high transaction costs, and quality in domestic supply chains. However, some large commercial companies have recently been investing in food crops commercialization and processing units in central and northern Mozambique for local purchases.

26. Expansion of production of cereals (excluding rice) and cassava has been distinctly different across provinces (Table 2). However, the size of each needs to be taken into account in order to assess the potential impact on national food security. 87.5 percent are prroduced in the provincies of Nampula, Zambézia and Cabo Delgado. Production has increased significantly.

Table 2: Growth of cereal and cassava production by province

(thousand tons)

Province	Cassava					Maize, Millet, Sorghum				
	Avg 97-99	Avg 05-07	Growth	% of national		Avg 97-99	Avg 05-07	Growth	% of national	
				Avg 97-99	Avg 05-07				Avg 97-99	Avg 05-07
Nampula	2,633	2,793	6.1%	47.8%	40.0%	215	261	21.6%	14.4%	14.1%
Zambezia	1,435	1,898	32.3%	26.0%	27.2%	247	331	34.2%	16.5%	17.9%
Cabo Delgado	761	1,419	86.5%	13.8%	20.3%	106	212	99.7%	7.1%	11.4%
Niassa	134	212	58.3%	2.4%	3.0%	189	284	50.0%	12.7%	15.3%
Tete	7	9	35.4%	0.1%	0.1%	188	244	29.6%	12.6%	13.2%
Manica	5	9	81.1%	0.1%	0.1%	226	267	18.3%	15.1%	14.4%
Sofala	62	67	7.8%	1.1%	1.0%	124	115	-7.7%	8.3%	6.2%
Inhambane	323	322	-0.2%	5.9%	4.6%	93	56	-39.9%	6.2%	3.0%
Gaza	129	222	72.2%	2.3%	3.2%	68	57	-16.4%	4.6%	3.1%
Maputo Prov	22	30	38.7%	0.4%	0.4%	35	28	-19.3%	2.4%	1.5%
Mozambique	5,510	6,982	26.7%	100.0%	100.0%	1,492	1,856	24.4%	100.0%	100.0%

Source: MINAG/DSA, Early Warning System.

2.1.4 Productivity and technology

27. Statistical surveys show that the use of chemical fertilizer, pesticides, and improved seeds is very low. Although oxen are increasingly being used in areas where cattle is not threatened by tsetse flies, very few farmers have access to agricultural machinery. Even by regional standards, land productivity in Mozambique is low.

28. The use of modern inputs is not widespread in the family farming sector, which is the main object of the annual TIA survey from which the data in Table 3 were obtained. Animal traction is used by some 12 percent of smallholders. One may question the validity of the irrigation numbers because of their fluctuation over time and the imprecise question in the survey.[2]

Table 3: Percentage of small and medium holdings using agricultural inputs, 2002–07

Item	2002	2003	2004	2005	2006	2007
Chemical fertilizers	3.8	2.6	n/a	3.9	4.7	4.1
Pesticides	6.8	5.3	n/a	5.6	5.5	4.2
Animal traction	11.4	11.3	n/a	9.5	12.8	12.0
Irrigation	10.9	6.1	n/a	6.0	8.4	13.2

Source: TIA, 2002 to 2007.

[2] The question was, "Do you use irrigation?" No information about the irrigated area was collected. Furthermore, the word used for irrigation (*rega*) would also apply to manual watering of a small vegetable field.

29. Use of improved, purchased seeds is not widespread either. Ten percent of smallholder maize farmers use improved seeds, while the percentage is less for rice and groundnuts improved seeds (Table 4). Note, though, that no information is available about crops like sunflower, cotton, or Irish potatoes, where activity reports of promotional agencies tend to point to the fact that seeds were provided or sold to farmers in certain areas. Most pesticides are said to be used in cotton farming, while tobacco farming is a main consumer of chemical fertilizers.

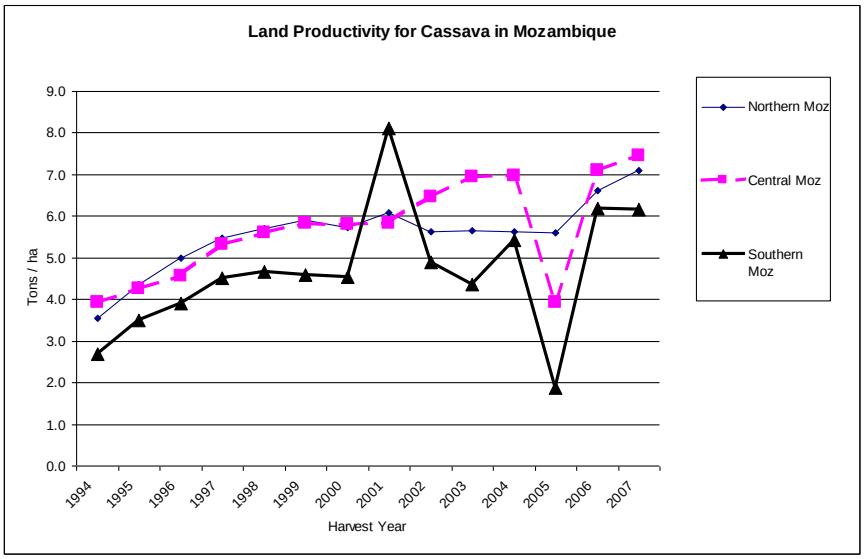
Table 4: Percentage of small and medium holdings using improved seeds

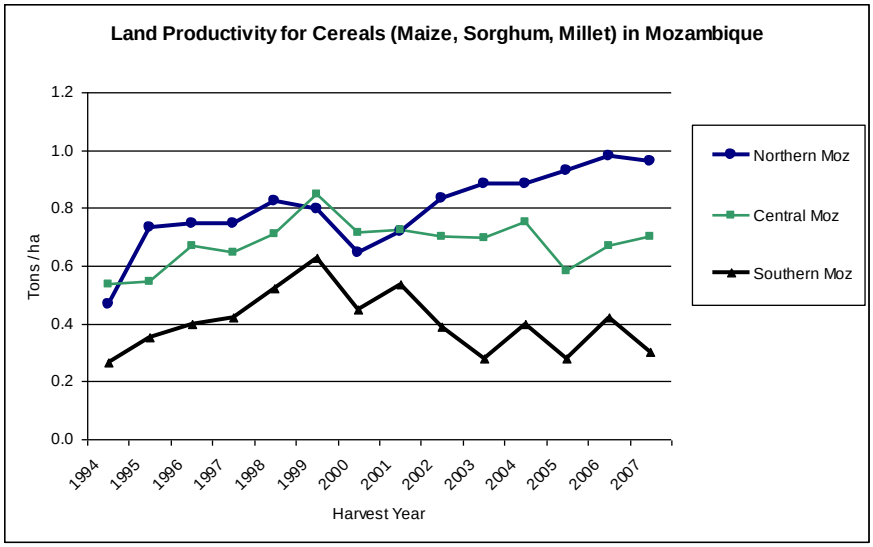
Crop	2005	2006	2007
Maize	5.6	9.3	10.0
Rice	3.3	4.0	2.9
Groundnuts	2.0	4.2	6.4

Source: TIA, 2005 to 2007.

30. In view of the low level of input use, it is not surprising that land productivity is low in international comparison. But it is noteworthy that even at these low levels, productivity is not clearly rising (Figure 8). Regions (northern, central, southern) are shown separately because the absolute differences and different trends show the diversity of situations.

Figure 8: Land productivity for selected food crops, 1994–2007

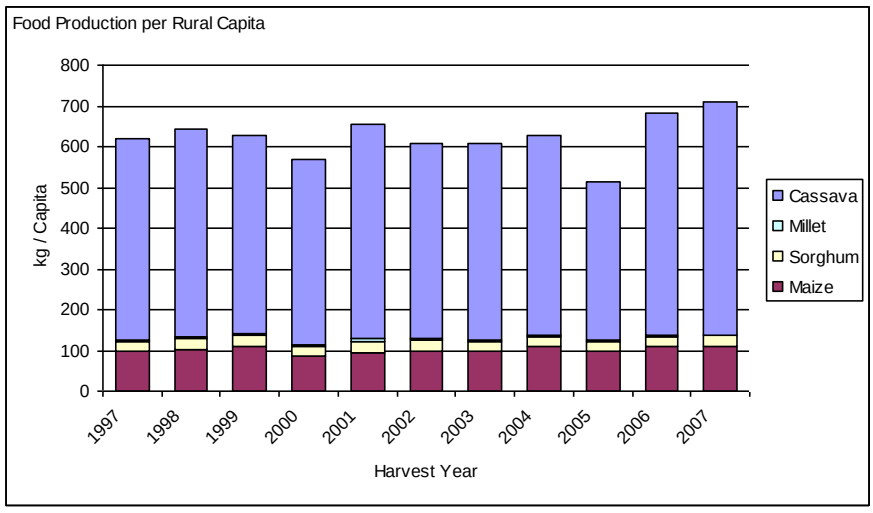




Source: AgPER Team, based on data of MINAG/DSA, Early Warning Systems.

31. Over the period 1997 to 2007, food production (cassava, maize, millet, and sorghum) per rural capita remained virtually stagnant, implying that labour productivity has not visibly improved. Admittedly, this is a conclusion based on a very rough proxy for assessing the number of people engaged in agriculture activities. A shift of rural population from agriculture to other crops or nonagricultural activities, combined with a rise in labour productivity of those remaining would also be compatible with the data shown in Figure 9. Furthermore, since cassava is grown essentially for own consumption or for the market of the locality and next small town, one would not expect an increase of this rough measure of labour productivity because production is constrained by the lack of market opportunities.

Figure 9: Food production per rural capita, 1997–2007



Source: AgPER Team, based on data of MINAG/DSA, Early Warning Systems. Population data are from Census 1997 and Census 2007 and estimates of population of cities and towns for 2007 in order to estimate rural population, which have not yet been calculated on the basis of the 2007 Census results.

2.1.5 Food balances

32. The country is generally self-sufficient with regard to maize and cassava as well as beans and vegetables. Maize surpluses are exported, at a smaller scale, mainly to Malawi. Nevertheless, consumption greatly exceeds production for rice (the main staple besides maize and cassava), wheat, vegetable oils, and meat (beef as well as chicken) (Table 5).

Table 5: Surpluses and deficits of selected food crops and products

Product	Nacional consumption tons	National supply tons	Deficit/excedent tons
Rice	539,000	223,000	-316,000
Wheat	472,500	3,000	-469,500
Maize	1,656,000	1,732,000	+75,000
Cassava	6,000,000	9,576,292	+819,073
Irish Potato	252,000	82,700	-169,300
Chicken	54,000	30,000	-24,000
Fish (*carapau*)	54,000	-	-54,000
Vegetable oil	50,400	-	-50,400

Source: Presentation to the Conselho Coordenador of the Ministry of Planning and Development (Ministério da Planificação e Desenvolvimento; MPD), January 2008.

Note: No explanation could be found on how the excedent for cassava was calculated.

2.2 Current challenges

33. Although production has grown steadily over the past 15 years, fears are being expressed that the growth of agricultural production will slow in the near future because it was derived from increases of cultivated area, driven by a returning and growing rural population, rather than improvements of land productivity. Thus, the increase in production in the past decade, some fear, is likely to slow significantly in the future.

34. At the same time, on the policy side, the agricultural sector is seen as one of the key elements in Mozambique's poverty reduction strategy. The majority of the poor live in rural areas. Therefore, improving agricultural productivity (labour productivity in particular) on a broad scale is a specific policy target. Agricultural growth could also be the driving force to avoid a further widening of the urban/rural income gap. It is recognised that supplementing income derived from agriculture with semi-industrial activities is also important for raising rural incomes and, in particular, for making incomes less dependent on weather conditions. Broad and sustained agricultural growth with linkages to processing industries is thought to be a suitable strategy for poverty reduction and closing the income gap, however.

35. Slow growth of agricultural production means also lost income and growth opportunity. Many vegetables at Maputo markets are imported from South Africa. Hotels and resorts along the coast have great difficulty buying foodstuff in the area. Given the relative abundance of land and sufficient rainfall levels in the central and northern regions

of the country, Mozambique could become a net exporter of many products for the region and the world.

36. The recent surge of food prices in 2007 and 2008, driven by high crude prices, increasing demand from Asian countries, and, to a certain degree, speculation, has shown the vulnerability of Mozambique with regard to world markets for cereals. Although the price increases may represent an opportunity for rural producers, the main threat is with regard to the ability of the urban population to afford rice, cooking oil, and some meat at soaring world market prices. So far, Mozambique has not had any food riots, but the unrest that followed a sudden and significant increase in the price of urban transport in Februray 2008 gave an impression of the potential threat that soaring food prices might represent for the country's peace and stability.

37. Some countries initially reacted to the soaring prices of the major cereals with export restrictions. This raised some doubts about the continued validity of the current food security policy. Mozambique does not keep significant food reserves because it was thought that having foreign exchange reserves would allow the country to import cereals when needed in order to cover deficits that may be caused by natural disasters. The export restrictions of some countries raised fears that this hypothesis might not always be true.

2.3 Policy response to recent and new challenges

38. Policy responses are documented principally in the PARPA I (2001–05) and PARPA II (2006–09), and the various documents that form the basis of the ProAgri I and ProAgri II strategies of the MINAG. Recent policy documents that originate from the MINAG complement, specify, and modify the strategy, namely the Priorities for the Agricultural Sector of 2005, the Strategy for the Green Revolution of 2007, and, latest in the series, the Food Production Action Plan (PAPA) of 2008.

39. Both PARPAs emphasise the role of agriculture, although with some shifts in emphasis. PARPA II, similar to other second-generation poverty reduction strategy papers (PRSPs), placed more emphasis on productive sectors and income generation than did the first-generation PRPSs that were, generally, highlighting social sectors (health, education, water). However, governance, road transport, and agriculture were also defined as priority sectors in PARPA I. PARPA II goes further and speaks explicitly about a transformation of the agricultural sector as a goal, turning peasant agriculture gradually into agricultural enterprises with a market focus.

40. The ProAgri I strategy, which was developed largely in 1997 and 1998, at a time when poverty reduction was already a main objective of the GoM, but before the PARPA was developed, focused on sector reform and on decentralisation of activities, initiatives, and funds.[3] ProAgri I was based on a list of basic principles that gave guidance to

[3] The Appraisal Mission report is dated 08 May 1998. The "National Programme for Agricultural Development (ProAgri): 1999 to 2003, Master Document" was published in February 1998.

delimiting the public and the private spheres.[4] It was the right time to rethink the role of public services because the intervention-intensive period of resettlement and recovery of the agricultural sector was coming to an end, six to seven years after the peace agreement. Since that time, the responsibilities of the MINAG have essentially been focused on providing public goods and adequate regulation, while phasing out direct interventions in the sphere of the private sector. For example, providing veterinary services (except vaccinations), or credit, or marketing and input supply, were no longer considered the responsibility of the public agricultural services. The provision of free or significantly subsidised inputs was limited to cases of natural disasters. The state-owned seed company Sementes de Moçambique Ltda. (SEMOC) was privatised. Dip tanks were handed over to private entrepreneurs or associations to run and manage.

Components of ProAgri I

- Institutional development
- Support to agricultural production (*apoio à produção*)
- Support to livestock development (*pecuária*)
- Extension services
- research
- Land management
- Irrigation
- Forestry and wildlife

41. The strategy was supported by a common fund for external resources. In the context of this pooled donor funding, two new planning instruments were introduced: the PAAO (starting from FY2001) and the Arco-Iris internal accounting system. The PAAO, prepared bottom-up from the provincial level with strong involvement of districts, had elements of a zero-budgeting approach: no budget line was taken for granted, and all planned activities had to be justified and costed. In the context of redefininition of the role of public services, this exercise made sense at that time. Donors that contributed to the ProAgri common fund made it a condition that only activities in the PAAO could be financed with common fund resources.

42. Arco-Iris was introduced to enable the Ministry of Agriculture to report on the use of funds. At that time, the public accounting system was single-entry and not integrated. Arco-Iris is a double-entry system which also allows to control bank accounts. It produced the forms that had to be submitted to the (Ministério das Finanças, MF) and therefore proved quite useful. It also provided a number of additional classifiers to code components, subcomponents, and activities. It was valuable in that it was also able to keep track of donor funds paid into the common fund.

43. While ProAgri I was essentially about reconverting what had become a fragmented "ministry of agricultural projects" into a more decentralised MINAG with a strong strategic role, the concept for ProAgri II has a stronger focus on results and impact. The original ProAgri II strategy, finalised in November 2003, takes a broad view of the agricultural sector and covers many aspects that relate to other sections of the public administration, such as roads, markets, credit, etc.[5] It proved difficult, though, to translate

[4] Mozamique: ProAgri Appraisal Mission: Justification, Concept and Objectives. Final Version, 8 May, 1998.

[5] MADER: Strategy Document ProAgri II. Maputo, March 2004.

the broad strategy into an operational document for guiding and prioritizing strata of activity of the MINAG that did not infringe on the other sectors' responsibilities.

44. PARPA II, prepared in 2005, represents a certain turnaround in the approach to making the distinction between public and private goods, that was so much the focus of ProAgri I and the Basic Principles. PARPA II started to suggest the need for public interventions in areas that should, in principle, be left to the private sector but where, in practice, the private sector did not take up the role to the extent that was desirable and necessary for sustained and strong growth. It talks about a structural transformation of the sector, more-intensive linkages between the producers, markets, and processing industries, and puts agricultural development firmly into the context of the development of the rural economy.[6]

45. In view of the rather visionary and therefore vague ProAgri II strategy, several strategic documents were prepared:

- a **Vision** for the agricultural sector, posted and distributed in 2004;
- a document entitled **Prioridades de Desenvolvimento Agrário, 2006–09** (Priorities of Agrarian Development, 2006–09), published in September 2006;
- the **Green Revolution Strategy**, adopted by the Council of Ministers in 2007; and
- the **PAPA**, with a time horizon from 2008 to 2011 (for three agricultural seasons), which was prepared and made public in June 2008.

46. An overarching document entitled Plano Estratégico de Desenvolvimento Agrário (Strategy and Plan for Agro-Development; PEDSA), which will cover a longer period and present a strategy that includes the previously cited documents, is currently under preparation.

47. In line with the international discussion about agriculture and development aid, the series of these documents shows a gradual acceptance of some direct interventions in those areas where market forces take too long to develop and where private operators take too long to play the expected role. The main areas of market failure that transpire from these documents are

- unavailability of seasonal loans to agriculture;
- risk aversion of farmers, which prevents them from adopting new technologies that involve purchasing of inputs (seed, chemical fertilizer, or pesticides); and
- seed production, which was ailing after the privatised SEMOC almost ceased to operate because of other problems that the investor had.

48. The documents, and the PAPA in particular, also call for concerted efforts encompassing the entire value chain for specific products.

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[6] See in particular page 225 ff. of the Plano de Acção para a Redução da Pobreza Absoluta (PARPA II) 2006–09, Maputo, May 2006.

49. While the previous documents were generally presenting strategies that could lead to improved exploitation of agricultural potential with the objective of improving rural livelihood and reducing rural poverty, a distinct shift of focus transpires from the PAPA. The plan, prepared in view of the soaring food prices and the threat of export restrictions worldwide, aims at production increases in order to reduce import dependence. The central objective is to reduce the degree of dependence on food imports of Mozambique in order to reduce vulnerability to external shocks. Improving incomes in rural areas and rural poverty are a welcome side effect.

PAPA: some highlights

- Implementation period: 2008–11.
- Focus on the crops maize, rice, wheat, cassava, Irish potato, oil seeds; and on chicken production and fish farming.
- Approach: integrated approach to intensification, focussing not only on agriculture and agricultural inputs, but also on markets and credit.
- Overall budget in million MT per agricultural season:

  2008/09: 3,159 (of which MINAG: 1,184 (of which 193 for irrigation)
  2009/10: 3,995 (of which MINAG: 2,156 (of which 1,332 for irrigation)
  2010/11: 3,728 (of which MINAG: 2,719 (of which 1,598 for irrigation).

  The numbers for MINAG include significant amounts for the production of seeds.
- Coordination through an interministerial council with participation of the Ministry of Industry and Commerce (Ministério da Indústria e Comércio; MIC), Ministry of Science and Technology, MINAG, Ministry of Transport, MF, and MPD.

2.4 The international context

50. It has been frequently observed that, over an extended period, public spending on agriculture has fallen as percentage of overall public expenditure.[7] To some extent, this was the wanted result of dismantling direct state interventions in the sector and the quest to let market forces develop and play their roles. It was also due to the advent of the Millennium Declaration, which has several specific targets with regard to social sectors, but only the first of the Millennium Development Goals (MDGs), general "reduction of poverty" goal that would be the basis for an intensive focus on the agriculture sector. As a result, donor spending in particular moved away from agriculture, in favour of social sectors and (lately) governance and financial management.

51. In parallel, there was growing evidence from developing, in particular African, countries that suggested that the private sector was painstakingly slow in taking up the role that it was expected to play when the state withdrew from marketing, provision of inputs and agroprocessing. Although liberalisation may have been too partial, although too many other impediments to private sector development may still have existed (like complicated licensing rules, inadequate fiscal systems, and corruption), there was growing concern that the withdrawal of the state was maybe too sudden and premature. Subsidies and other forms of direct intervention therefore have become somewhat more acceptable.

[7] For one recent example, see Stephen Akroyd and Lawrence Smith, *Review of Public Spending to Agriculture*. Study prepared by Oxford Policy Management for the Department for International Development (UK; DFID) and the World Bank. January 2007.

52. In 2003, the heads of state of the AU adopted the Comprehensive Africa Agriculture Development Programme (CAADP) and set the target that governments should allocate at least 10 percent of the budget to broad agriculture (including forestry and fisheries).

53. These developments, together with the surge of food prices in 2007 and 2008, left their marks in Mozambique, where there is growing political pressure to increase public spending for agriculture.

54. The issues arising from this sectoral and policy context will be taken up again in Chapter 4 to the extent that a comparison of numbers and policies can contribute towards informing the discussion, and to the making of choices. Before that, however, Chapter 3 will present some general data on public expenditure and discuss trends and special characteristics at a general level.

3. PUBLIC EXPENDITURE IN THE AGRICULTURE SECTOR: OVERVIEW

55. This chapter provides an overview of the size and composition of public expenditure in the broad agriculture area as defined in this review, covering public services for agriculture in the narrow sense (crops and livestock), forestry, and fishing.

56. In Mozambique, the relevant public services are delivered by

- the MINAG, which covers crops, livestock, research and extension, and the administration of rural land tenure and forestry;
- the MP;
- two large-scale irrigation projects implemented by the MOPH and Chókwé Hydraulic Company (Hidráulica de Chókwè E.P.; HICEP), a parastatal operating the Chókwè irrigation scheme;
- selected projects, if in the area of agriculture, under the responsibility of the Directorate for Rural Development of the MPD; and
- selected projects, to the extent that they can be considered as public expenditure in agriculture, under the auspices of the GPZ.

57. Subordinate and supervised institutions (*entidades subordinadas e tuteladas*) are included in the analysis. They are generally included under the ministry to which they report, but with the exception of the FDA. The FDA is often shown separately because of the size of its spending and the fact that it has been entirely off-budget up to and including 2009.

58. The National Institute for Disaster Management is not included in the analysis. It provides limited agricultural services in semi-arid areas, but at a very small scale.

59. Detailed data, on which the graphs presented in this chapter are based, are compailed in tables in Annex II.

60. Readers who are not very familiar with the planning, budgeting, and financial management system in Mozambique may want to read Annex I, which presents these systems in greater detail, first.

3.1 Data sources and their caveats and constraints

61. The analysis of spending in this chapter is based on the following sources:

a) the annual Government Financial Report (referred to officially as General State Account, CGE) for actual spending up to 2007;

b) the state budget (Orçamento do Estado; OE) as the source of initial spending plans and as a proxy for actual spending for the years 2008 and 2009 for which financial reports are not yet available;

c) Arco-Iris, the internal accounting systems of the MINAG;

d) information at project level with regard to large irrigation projects and agriculture-related spending undertaken by the DNPDR;

e) occasionally, additional internal information and statistics of the institutions, with special mention of the annual reports and financial statements of the FDA;

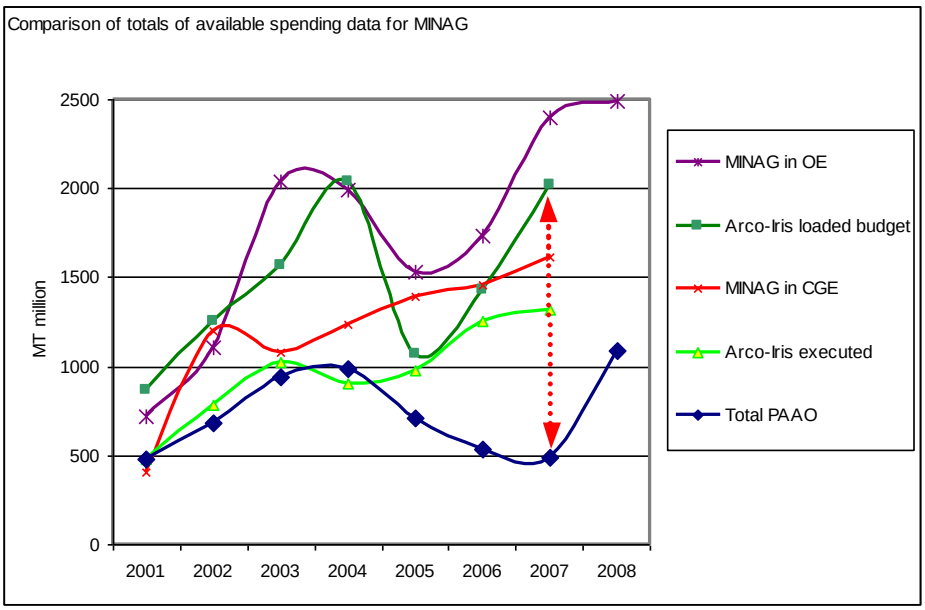
f) the databank of donor-financed projects, named ODAMOZ, for the purpose of capturing the size of off-budget spending by donors;

g) the PAAO of the MINAG, which serves to prepare the budget proposal, although hardly any use of these data was made in the end, in view of their limitations.

62. However, the different series are often not comparable, and time series analysis even with only one single set of data has serious limitations and may even lead to unwarranted conclusions. The main reason is that Mozambique is still in the process of reforming its system of public finance management at the overall level, while sector systems remain partial, to a degree that varies over time.

63. Several of the sources provide data on what should ideally be the same flow of funds, referring to either planned (budgeted) or actual expenditure. But, unfortunately, their coverage differs, and there are additional huge difference in absolute volume over and above what the conceptional difference can explain. Figure 10 illustrates the difficulties that this poses. It compares three data series for planned expenditure (PAAOs, initial OE, and spending limits initially loaded into Arco-Iris) and two series for actual expenditure (the CGE and actual expenditure recorded in Arco-Iris). Box 1 explains the conceptual coverage of each of the series.

Figure 10: Comparison of totals of available spending data for MINAG, 2001–08



Source: Various annex tables of Annex II; data from the SISPLATA database (not reproduced in the annex)

Note: Data cover, in principle, spending at central and provincial level, for MINAG and all its institutes. except the FDA.

64. In principle, the figures of the approved budget (OE) should be higher than the initial spending limits loaded into Arco-Iris, because Arco-Iris only deals with expenditure managed by the MINAG and its subordinate institutions. In 2001 and 2002, though, "Arco-Iris loaded budget" appears to have contained expenditure that was not captured in the OE. In 2004 and 2005, the gap jumps from very small to extremely wide.[8]

65. The PAAO totals are problematic because the coverage of recurrent spending and of the so-called MINAG development projects has changed over time. The huge gap between the OE and the PAAO totals for MINAG and subordinate institutions and diverging trends is astonishing.

66. Actual spending recorded in the CGE and in Arco-Iris can be expected to be different because CGE also records expenditure that is not managed by MINAG and therefore not captured in Arco-Iris. However, the difference is significant and trends are different as well.

67. PAAO data and the series "Arco-Iris loaded budget" are not suitable for analysing totals. This conclusion, not at all evident when this study started, prompted the AgPER to essentially not use these data. The interpretable data are the initial budget (OGE), the data

[8] We present this comparison although it may not be legitimate to compare the series. Over the years, various methods have been used to load ceilings into Arco-Iris: at times approved budget figures, at times an aggregation of PAAO data. In 2005, due to the late approval of the budget, final budget data were not available until June. We were informed that the spending units, which each has a computer with Arco-Iris, are free to set spending ceilings in line with their respective initial and modified budgets. Arco-Iris was not meant to be an expenditure control system, and aggregation of spending units into the global database is a feature that is not the core of the system.

presented in the final financial statement (CGE), and, to some extent, the line "Arco-Iris executed."

Box 1: Data sources and their limitations

OE contains, in principle, all expenditure by and on behalf of government. It covers expenditure financed by aid, regardless of whether aid is provided in cash or in kind. Expenditure against own revenue of government agencies is included as well—in principle. However, although a very high degree of aid is on-budget, coverage is not yet complete. In particular, U.S. support to the sector through NGOs has not been on-budget so far. Reform efforts have increased collection as well as the coverage of spending against own revenues over the past few years.

A special effect comes into play with regard to externally funded expenditure. Sectors tend to propose optimistic budgets, driven by the availability of funds. Therefore, the overall external component is initially significantly higher than the amount of external funding assumed in International Monetary Fund– (IMF-) agreed programmes. It happens regularly that the MF reduces project budgets financed by earmarked external funds across the board by a certain percentage in order to ensure that budget totals and IMF programme totals match.

CGE has, in principle, the same coverage as the budget. In practice, however, the DNCP gets incomplete information about actual spending of external funds that follow special procedures. Different solutions have been tried over time. Up to and including 2003, expenditure on projects on which no reliable information was available was estimated and added to the summary table (referred to as "Fiscal Table"), but not disaggregated by sector or type of expenditure. Therefore, the estimated part, which amounted to 88 percent of total externally funded investment expenditure in 2001, is not reflected in spending data per sector. Later on, expenditure was estimated and broken down, but assuming that the breakdown follows the budget proposal. Often, *disbursements rather than expenditure* are recorded, which makes a significant difference when funds arrive late in a year to be spent early in the following year. Lately, DNCP does not include projects on which no information is available.

Thus, the CGE tends to report expenditure that is typically significantly lower than appropriations in the budget, partly because expenditure was not captured, partly because budgets were over-optimistic, and partly also because the funds were not spent, for various other reasons.

Sisplata (Sistema de Planificação Táctica**)** is a planning and budgeting software in use in the MINAG. It is the basis for the annual budget proposal to the MF as well as the PAAO. Sisplata is in use in provinces and at the central level. Each entity plans its activities and costs them. Adjustments are made at different stages. Sisplata provides an incomplete picture, however, even in the most recent years, because some sections of MINAG include the recurrent budget (*despesa de funcionamento*), while others do not. Some provinces include the internal investment budget, others do not (because, since 2006, the internal investment ceiling is attributed by the province, and the Sisplata is seen as an instrument to argue for funds from the central MINAG level). Projects that are not administered by MINAG are generally not captured.

The "MINAG Development Projects", which, since 2006, complement the expenditure on core functions, are not captured because the software does not (yet) allow users to introduce the respective data.

Arco-Iris is the internal accounting system of MINAG. It captures all funds managed by MINAG, and thus captures recurrent and investment expenditure from internal and external sources, but not expenditure for projects with distinct procedures (like, for instance, African Development Bank– (AfDB-) financed projects). Arco-Iris was designed to help spending units record the composition of their expenditure. Each spending unit has a stand-alone computer with their respective part of the system. The databases are regularly aggregated at the central level.

The initial budget figures have various origins in different years and are not interpretable.

Arco-Iris does not fully record own revenues of the different parts of the agriculture administration. Where they are captured, spending against own revenues is not disaggregated by component; rather, spending

against own revenue is treated as a component on its own. Spending against earmarked revenue in the Cashew Institute are captured, spending of the Cotton Institute generally are not. Arco-Iris does not cover the FDA, which receives the bulk of revenues collected by the agricultural administration.

Before the roll-out of e-SISTAFE (the new Integrated Financial Management and Information System– [IFMIS-] type accounting and payment system of the public administration) to MINAG in late 2006, Arco-Iris was essentially an electronic front end that produced the tables (*balancetes*) that MINAG and its subordinated and supervised institutes had to submit to the MF. Since then, Arco-Iris has been a parallel system.

Arco-Iris was never designed or used as an expenditure control system. It simply records expenditure and is the basis for the annual external audits of ProAgri spending.

A **suggestion** about how to solve the dilemma of inconsistent and partial expenditure data is contained in Section 4.3 of this report.

68. The different coverage of the various data sources on expenditure is shown in Table 6. Note that coverage of each of the instruments has also changed over time.

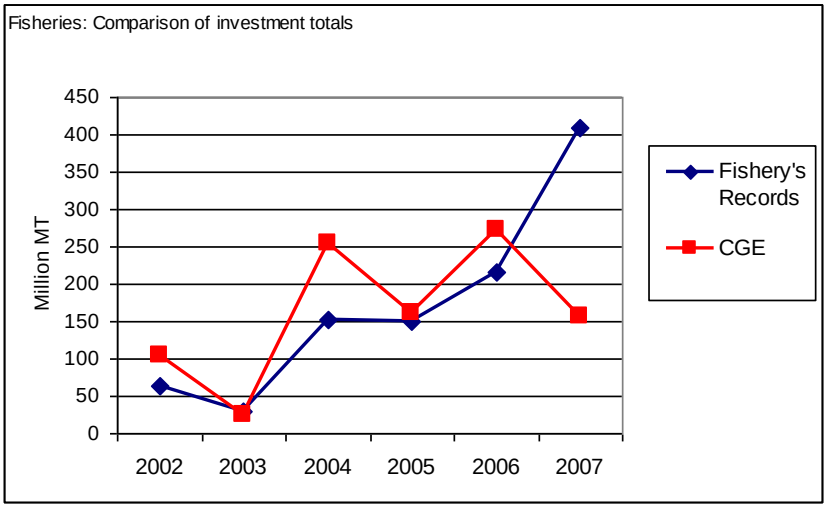
Table 6: Data capture by different systems and data series of expenditure in Agriculture

Type of expenditure		Data Source				*Notes*
		OE	*CGE*	*Arco-Iris*	*Sisplata/ PAAO*	
Expenditure from own revenues	Incaju	✓	✓	✖	✖	
	Other MINAG	increasingly	increasingly	✖	✖	Arco-Iris captures expenditure, but does not detail the use.
	Fundo de Desenvolvimento Agrário	2009+	2009+	✖	✖	
External investment	Other projects	✓	✓	✖	✖	if on-budget; some on-budget not captured in CGE.
	MINAG Development Projects	✓	✓	✓	✖	
	Core functions	✓	✓	✓	✓	
Internal investment	controlled by autonomous projects	✓	✓	✖	✖	
	controlled by MINAG and provinces	✓	✓	✓	✓	Sisplata may not always capture internal investment in provinces
Recurrent expenditure (despesa de funcionamento)		✓	✓	✓	partially	

Note: ✓ means "covered," ✖ means "not captured"

69. With regard to the MP and the Fund for the Promotion of Fishing (Fundo de Fomento Pesqueiro; FFP), the discrepancies are not as big, but are still substantial, as can be seen from Figure 11.

Figure 11: Actual investment expenditure by the MP—Comparison between public accounts and records of the MP, 2002–07



Source: Annex II Table 4, data provided in annual reports of the Ministry of Fisheries (MP).

70. There are three **main consequences** of this comparison for the subsequent analyses of spending data:

a) The analysis should avoid mixing data from different sources. One example: while Arco-Iris provides some information about the functional composition of expenditure of MINAG, the extrapolation of this composition to the whole of MINAG would clearly be wrong because of differences in the coverage of the series.

b) Because concepts and coverage have changed over time, the interpretation of small changes from year to year would overstress, in most cases, the robustness of the data. The effect of errors and conceptual changes can easily be more significant than the observed change.

c) Given the size of the discrepancies between the "planned" and the "actual" series, the relevance of planning for actual spending and the ability of the institutions to monitor expenditure may be questioned.

71. Many of the discrepancies and ruptures in time series are the consequence of financial management reforms that have been ongoing since 1998. The reforms have gained pace and impact in 2005/06 when the IFMIS-type electronic and central payment and accounting system started to come into operation and was rolled out to the MINAG and MP in the second half of 2006. But even before that, measures had been taken that aimed at

a) increasing the coverage of external aid, projects as well as common funds, in the budget as approved by the National Assembly (parliament);

b) improving the capture of aid spending in financial reports; and

c) including own revenues in the budget and CGE.

72. Different sectors have brought expenditure on-budget at different times. Therefore, the interpretation of sector shares in overall expenditure is risky as it may reflect expenditure items going on-budget and on-report at different times in different sectors, rather than real expenditure shifts.

73. Own and earmarked revenues are an important item in the agriculture and fisheries sectors. They include, among other items, revenues from fishing licenses and logging licenses, and the surtax on exports of unprocessed cashew. Therefore, what appears as expenditure shifts can have a purely technical explanation when additional own or earmarked revenue start being reflected in budgets or in financial reports.

3.2 Expenditure levels in a historic perspective

74. With the above-mentioned caveats in mind, the first series of analyses is based on the data of the CGE, complemented by specific information about irrigation projects under the auspices of the MOPH (Massingir), the Chókwè irrigation scheme, the FDA (which was not included in budgets nor in financial reports until 2008, inclusively) and agriculture-related projects of the DNPDR, beginning from the time when it was separated from the MINAG.

75. No adjustments were made for spending by externally funded projects not captured in the government accounts—the number and amount of which has diminished over time. Note also that the numbers do not include U.S.-financed spending on agriculture and rural development, which was and is substantial.

76. In 2006, each district received a budget allocation of MT 7 million, which were initially meant to finance local investment in public infrastructure. At the end of 2006 and particularly during the first months of 2007, the political orientation for the use of the funds changed: districts were instructed to use the local investment funds for creation of employment and food production. From then on, the "seven million" have essentially become a credit fund administered by local authorities in a participatory way, with strong involvement of local advisory councils. No reliable statistics are available about the actual use. However, episodic evidence from the press and interviews suggest that at least 50 percent of district lending has been for agriculture or animal husbandry. Since the amounts are substantial and since all available evidence suggests that agriculture is the most important sector to which they are made available, we include these 50 percent in spite of the uncertainty about the actual amount.

77. Table 7 provides a summary of what has been considered as spending in agriculture.

Table 7: Actual expenditure in broad agriculture, 1998–2007

(million MT)

	act. 1998	act. 1999	act. 2000	act. 2001	act. 2002	act. 2003	act. 2004	act. 2005	act. 2006	act. 2007
[1/] **Ministry of Agriculture**	n.a.	215.3	414.7	405.8	1,194.7	1,082.9	1,236.4	1,388.4	1,456.7	1,611.0
central		146.4	337.1	272.8	796.8	583.9	764.4	926.5	957.1	1,009.4
provincial		68.9	77.6	133.0	398.0	499.0	472.1	462.0	499.6	601.6
"Funcionamento"		141.7	153.0	175.9	226.4	188.4	281.4	324.3	320.7	421.3
[2/] central		88.5	85.9	86.5	131.3	83.0	146.5	172.3	133.4	176.0
[3/] provincial		53.2	67.2	89.4	95.1	105.3	134.9	152.1	187.3	245.3
"Investimento"		73.6	261.6	229.9	968.3	894.5	955.0	1,064.1	1,136.0	1,189.7
central		57.9	251.2	186.4	665.5	500.8	617.8	754.2	823.7	833.4
provincial		15.7	10.4	43.6	302.9	393.7	337.2	309.9	312.3	356.3
Irrigation projects MOPH & HICEP	7.5	5.2	7.4	48.4	299.1	271.1	435.4	975.2	520.5	482.3
Agricultural Development Fund	4.4	14.9	12.8	22.2	31.7	44.4	66.0	97.0	217.1	281.8
[4/] **Ministry of Fisheries**			16.2	27.4	129.6	55.2	299.8	213.7	340.4	250.6
central			15.3	22.4	123.7	48.9	288.3	197.2	316.9	216.5
provincial			0.9	5.0	5.9	6.3	11.5	16.5	23.5	34.0
"Funcionamento"			8.9	18.0	25.8	29.5	44.6	52.3	68.1	93.4
central			8.0	14.6	20.3	23.8	33.7	37.1	45.2	62.6
provincial			0.9	3.4	5.4	5.7	11.0	15.3	22.9	30.8
"Investimento"			7.3	9.5	103.8	25.7	255.1	161.4	272.2	157.2
central			7.3	7.8	103.4	25.1	254.6	160.1	271.7	153.9
provincial			0.0	1.6	0.4	0.6	0.5	1.3	0.5	3.2
[5/] **Rural Development /DNPDR**	n.a.	15.8	0.0	included in Ministry of Agriculture				116.6	135.7	135.0
[6/] **Zambezi Region Development Authority (GPZ)**						16.7	3.0	3.7	8.9	12.2
[7/] **District Investment for Food and Employment (OIIL) - 50%**										507.8
GRAND TOTAL		251.3	451.1	503.7	1,655.1	1,470.3	2,040.5	2,794.6	2,679.3	3,280.6
excl. OIIL										2,772.8
"Funcionamento"		141.7	161.9	193.8	252.2	217.9	326.0	376.7	388.8	514.7
"Investimento"		109.6	289.2	309.9	1,403.0	1,252.4	1,714.5	2,417.9	2,290.4	2,765.9
Exchange rate MTN/USD, period average	11.9	12.7	15.7	20.7	20.3	23.8	22.6	23.1	26.0	25.8
GDP Deflator, index 2003=100	66.5	69.2	77.2	88.4	95.5	100.0	107.5	116.9	127.8	138.4

n.a. = information not available

Sources: CGE, FDA annual reports, project documentation for large-scale irrigation projects.

Notes: See Annex 1, Table 4.

78. Actual spending in 2007 amounted to US$73.4 million by the MINAG (including lands, forestry, agricultural research, the commodity institutes, and the FDA). Fisheries spent US$11.4 million (average 2006 and 2007). In 2007, US$18.7 million were spent on the two large-scale irrigation projects in Gaza province. The 50 percent of the allocation for district investment in 2007 contribute another US$19.7 million. Overall spending, including also DNPDR and GPZ, in 2007 amounted to US$127.2 million (US$107.5 million without the OIIL).

79. The steep increase of recorded expenditure between 2001 and 2002 is due to the capturing of expenditures against external funds in agriculture from 2002 onwards. In 2001, the CGE was able to disaggregate, by sector, only 12 percent of the estimated

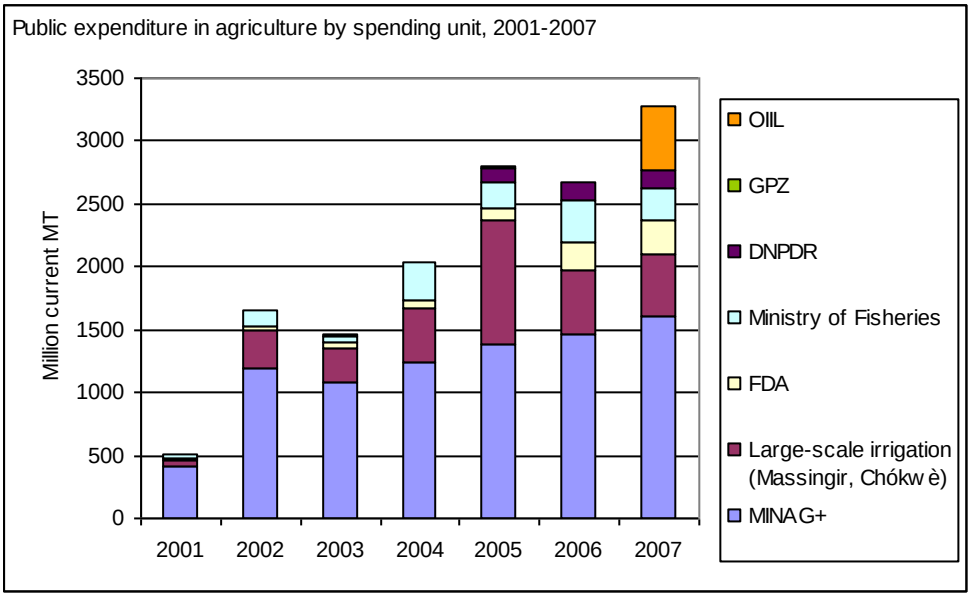
spending against external funds, which at that time were mainly projects. The share gradually increased until 2003. From 2004 onwards all external funds recorded in the government financial reports were attributed to spending units.

80. Investment in large-scale irrigation, which is not under the auspices of the MINAG and therefore not included in its spending data, refers to investments in the Chókwè irrigation scheme and the rehabilitation of the Massingir Dam in Gaza province. Since this is bulky investment, the volatility of the respective section of the column is all but to be expected.

81. The recent increase of the spending through the FDA may be due to improvements of actually collecting own revenue of provincial agriculture directorates. The FDA receives a large share of own revenues, including forestry fees, fines and similar. No general treasury funds are allocated to the FDA. Therefore, the sharp increase of spending in 2006 and 2007 must be due to higher revenues from fees and fines.

82. Figure 12 presents the overall structure of expenditure by spending unit.

Figure 12: Public expenditure in agriculture by spending unit, 2001–07



Source: Table 7, this document (CGE, FDA annual reports, project documentation for large-scale irrigation projects).

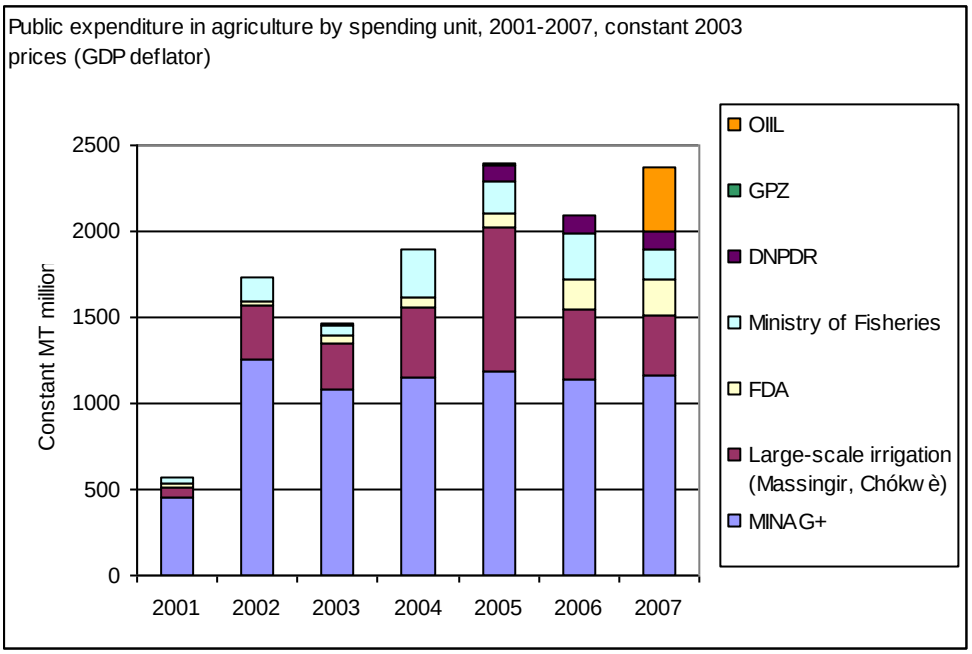
Note: "MINAG+" refers to MINAG and all its subordinated and supervised institutes with the exception of the FDA.

83. Better suited for an analysis are time series with data that are not influenced by inflation. Figure 13 shows the actual expenditure for agriculture deflated using the GDP deflator.[9] The series reveals

[9] It does make a substantial difference whether the GDP deflator or the consumer price index is used to deflate the series. The consumer price index always rose faster than the GDP deflator between 2001 and

- more or less stagnant spending of the agriculture administration (MINAG and subordinate or supervised institutions)—there has been no real increase since 2002 when the GDP deflator is used, and a decline of real spending if consumer price inflation is used as deflator;
- volatile spending levels in fisheries;
- and increasing spending levels of the FDA and its predecessors.

Figure 13: Public expenditure in agriculture by spending unit, 2001–07, constant 2003 prices (GDP deflator)



Source: Table 7, this document (CGE, FDA annual reports, project documentation for large-scale irrigation projects).

Note: "MINAG+" refers to MINAG and all its subordinated and supervised institutes with the exception of the FDA.

2007. The overall price increase from 2001 to 2007 was 57 percent, according to the GDP deflator, and 86 percent according to the consumer price index.

	2001	2002	2003	2004	2005	2006	2007	increase 2001-07
CPI, rebased 2003	80.5	87.9	100.0	109.1	123.3	133.4	149.5	85.7%
GDP deflator, base 2003	88.4	95.5	100.0	107.5	116.9	127.8	138.4	56.5%

The consumer price index captures fuel prices better than the GDP deflator. On the other hand, foodstuff has a far higher weight in the consumer price index than it has in the GDP deflator.

It is debateable which of the indexes is the better proxy for public expenditure in general or public expenditure on agriculture in particular. The consumer price index might actually be the better choice.

3.3 Spending from internal sources

84. Since the degree of capture of spending against *external* funds has changed over time, it is useful to look at the *internally* funded expenditure. Figures 14 and 15 show the historic trends in current and constant prices. The series do not include spending on large-scale irrigation since it was mainly funded from external sources (see Box 2 about the relationship between investiment expenditure and external sources).

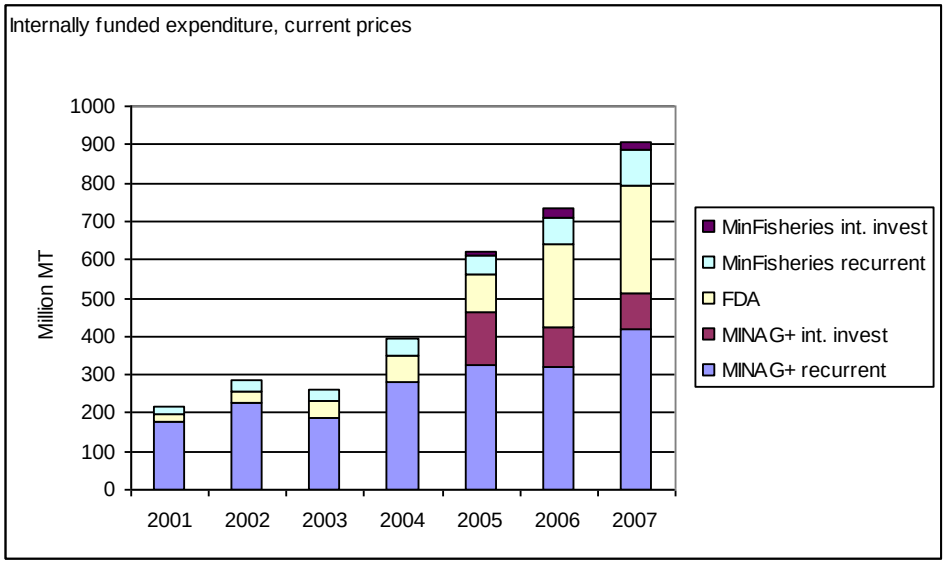
Box 2: Budget Terminology in Mozambique

Investment expenditure is expenditure organised by projects as an instrument for budget management. Projects contain large amounts of current (as opposed to capital) expenditure as well as routine (as opposed to development) expenditure. Since recurrent expenditure (*despesa de funcionamento*) do not allow to track the use of funds to specific expenditure items, all expenditure financed by earmarked external funds is recorded as investment expenditure because it is "projectised" and permits tracking. This also applies to expenditure financed from common funds.

GBS funds mix with government's own revenues at the level of the treasury. Therefore, all expenditure shown as "internal" is financed, in fact, either by internal revenue or by GBS.

85. Up to and including 2004, the CGE did not disaggregate investment expenditure by source (internal versus external). Therefore, the figures shown for externally funded investment expenditure refer to *total* investment expenditure up to 2004. The spending through the local investment allocation (Local Initiative Investment Budget [Orçamento de Investimento de Iniciativa Local; OIIL])—MT 508 million in 2007—is not included in the following figures. Adding the 50 percent of the district expenditure under the OIIL would increase internal spending on agriculture in 2007 from MT 905 million to MT 1,413 million, an increase of 56 percent.

Figure 14: Internally funded expenditure by spending unit, current prices, 2001–07



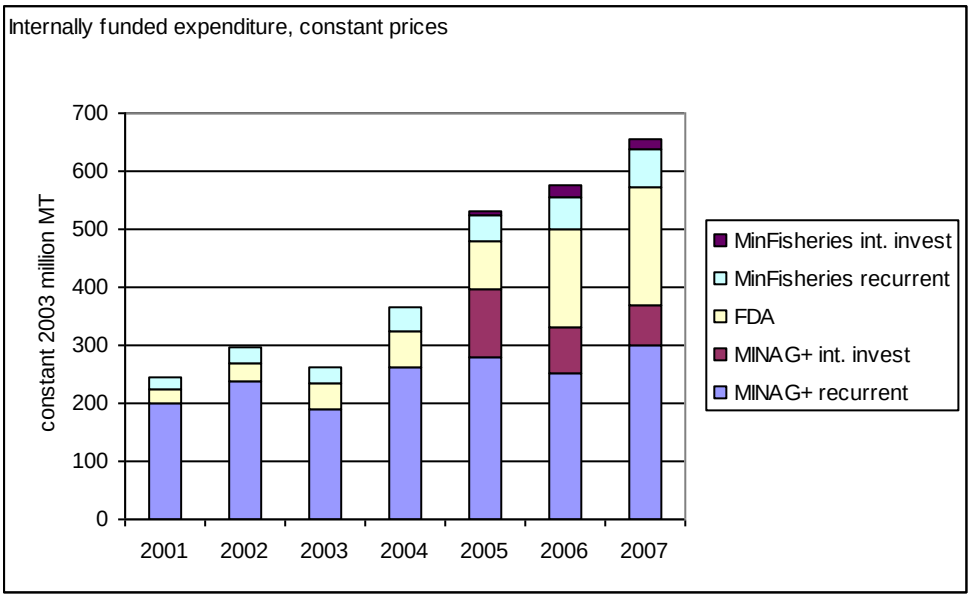
Source: AgPER Team, based on Annex II Table 5.

Notes:

Up to and including 2004, the CGE does not disaggregate investment expenditure by internal and external source of financing. Therefore, internal investment expenditure does not appear in the graph until 2004.

"MINAG+" refers to the ministry, all institutes except the FDA, and provincial directorates of agriculture.

Figure 15: Internally funded expenditure by spending unit, constant prices, 2001–07



Source: AgPER Team, based on Annex II Table 5.

86. Spending on agriculture from internal sources (domestic revenues and GBS) has increased significantly. However, the share of MINAG (including specialised institutes) has not grown. The overall growth stems from an increase of spending of the FDA (see

Box 3 for details about its operations). Whether its spending actually increased or whether reporting has improved could not be established.[10]

87. A further comparison is interesting: In 2007, internally funded spending of MINAG at central and provincal levels and of the commodity institutes and the research institutes, but without the FDA, amounted to MT 508 million. This includes spending against earmarked revenues through the Cashew Promotion Institute (Instituto de Fomento do Cajú; INCAJU) and the Cotton Institute, which spend against earmarked revenues. Without these two institutes, spending against general treasury funds to the agriculture sector amounted to MT 465 million. This is less than what we assumed to have been used for agriculture activities in agriculture from the "seven million" (i.e., 50 percent of the OIIL allocation to districts).

Box 3: The FDA

The present fund is result of the merger with the Agricultural Promotion Fund (Fundo de Fomento Agrário; FFA) and the Irrigation Development Fund (Fundo de Desenvolvimento da Hidráulica Agrícola; FDHA) in 2005. Its revenues represent the various fees and fines of agriculture and forestry. The distribution of these revenues has been changed over time. Part of the revenues are channelled back to the DPAs that have collected them. Twenty percent of income from forestry is sent back to the provincial directorates to be made available to local communities. Income and spending in FDA reports refers to the gross amounts, including the funds transferred to DPAs and communities.

In most cases, the FDA does not implement activities. Rather, it relies on DPAs. These receive an advance and justify expenditure to the FDA. Thus, the FDA is almost a source of funds rather than a spending unit. But since advances have to be cleared with the FDA, the expenditure appears as FDA expenditure rather than expenditure of the "agent" (DPA) that has requested the funds and may have done the procurement.

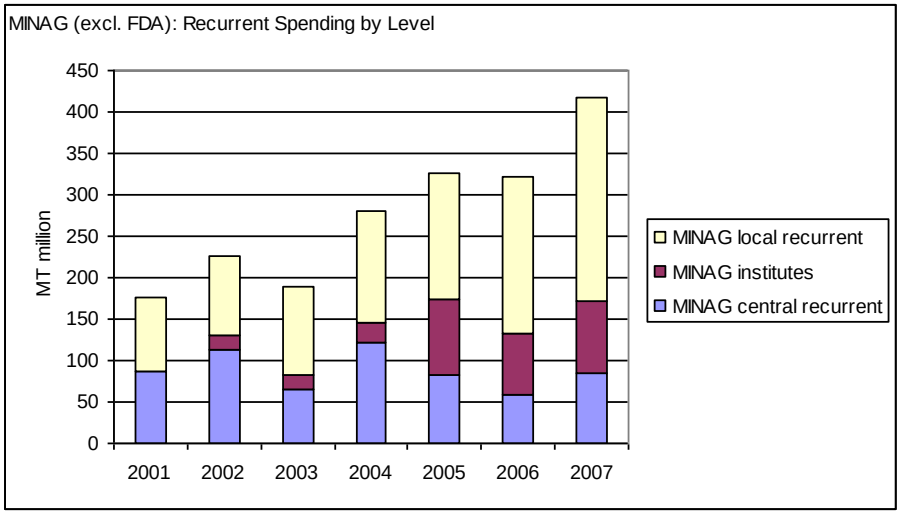
88. Decentralising funds to provinces and districts has been a prominent objective ever since the inception of ProAgri I. Nevertheless, a considerable share of overall resources is still controlled by the central MINAG and by the commodity and research institutes. However, a somewhat different picture emerges when only the recurrent spending (*despesas de funcionamento*) is taken into account. The data are taken from the CGE. The possibility to disaggregate expenditure reflects the evolution of budget procedures. In 2001, agricultural research was included in the spending reported for the MINAG. From 2002 to 2004, the budget included a pseudofunctional classification that was added to the organic classifier; the respective category was "research services" (*serviços de investigação*). From 2005 onwards, more institutes have appeared.

89. Figure 16 shows the resulting time series in current values. Striking features are

- the decline of the recurrent spending (financed exclusively from internal revenues plus GBS) by the MINAG at the central level, which is the result of the budgetary "independence" of a growing number of subordinated institutes;
- a relative stability for the sum of spending of MINAG plus institutes; and
- clearly visible increases of "local" (provinces and districts) spending.

[10] After an internal audit, the FDA had to revise its 2006 and 2007 reports, which resulted in substantial increases of reported revenues and spending. Data are still preliminary.

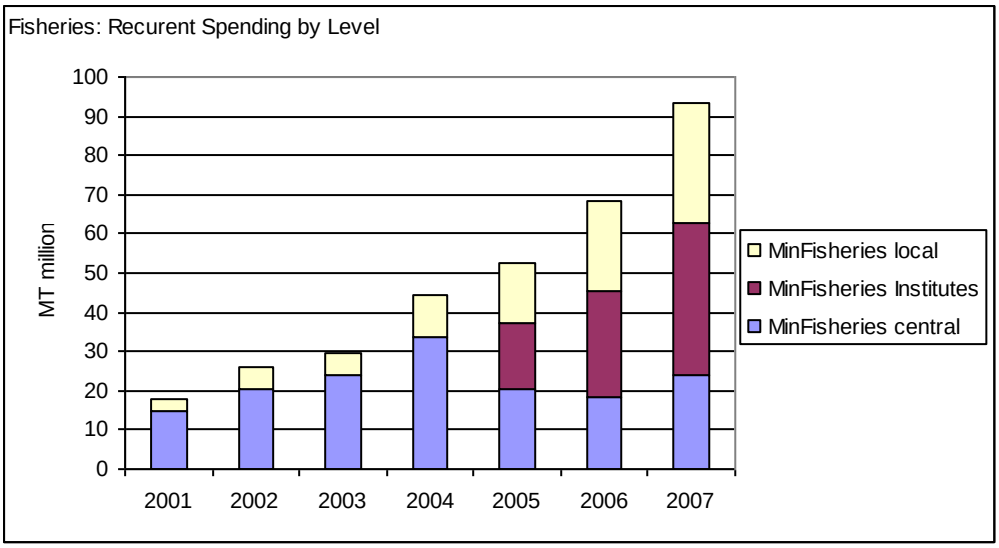
Figure 16: MINAG recurrent spending by level, 2001–07



Source: AgPER Team, based on CGE data (Annex II Table 5). FDA is not included because it was off-budget.

90. Local spending also increased substantially in the fisheries sector, as evidenced by Figure 17. Recurrent spending by the central ministry has decreased substantially from 2004 to 2005, as a consequence of the subordinated institutions receiving their own budget from 2005 onwards. Allocation to provincial directorates has increased significantly in absolute amounts and as a share of total recurrent expenditure of the public administration of fisheries.

Figure 17: Recurrent spending by the MP, by level, 2001–07



Source: AgPER Team, based on data from the CGE (Annex II, Table 5).

Note: FFP operates exclusively on project funds and therefore has never been allocated a recurrent budget. It is not covered in the data series.

3.4 Sources of funds

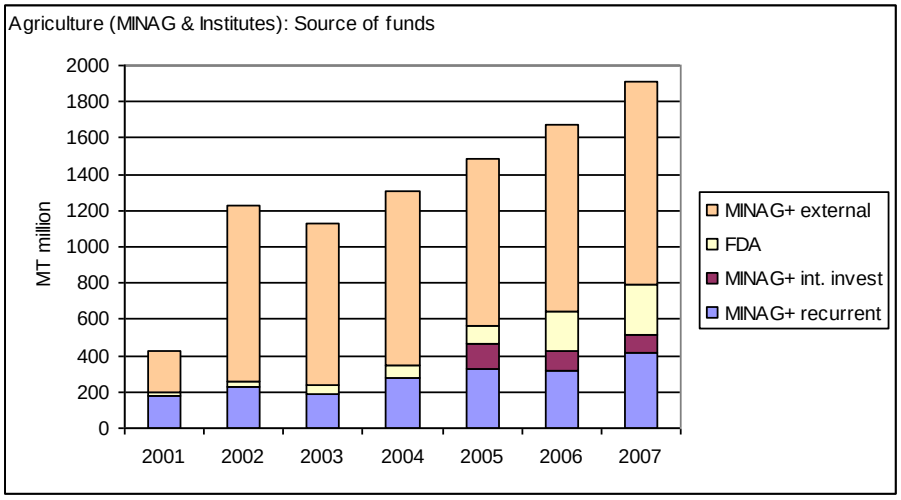
91. More than half of the spending of the MINAG and of the MP come from earmarked external sources. Including the spending attributed to the FDA, 41.4 percent of public spending on agriculture (without fisheries) is financed from internal sources—much more than is generally thought. The FDA makes up the difference (Figure 18).

92. The FDA is shown separately because of its weight and the fact that its activities are funded by own revenues of the agriculture administration.

Note that "external sources" refers to earmarked external funds only. Earmarked funds are either traditional projects or external funds channelled through the ProAgri common funds.

General budget support, on the other hand, mixes with internal revenues at the level of the Treasury. Spending shown as "against internal sources" therefore is spending against internal revenues and general budget support funds.

Figure 18: Public spending in agriculture according to sources of funds, 2001–07



Source: AgPER Team, based on data from CGE (Annex II Table 5) and FDA financial reports.

Note: The 2001 data are shown for reference, but external investment is underreported because most of the external investment expenditure was estimated, and not allocated to sectors. Up to 2004, the data shown for external investment include the internal component to project financing.

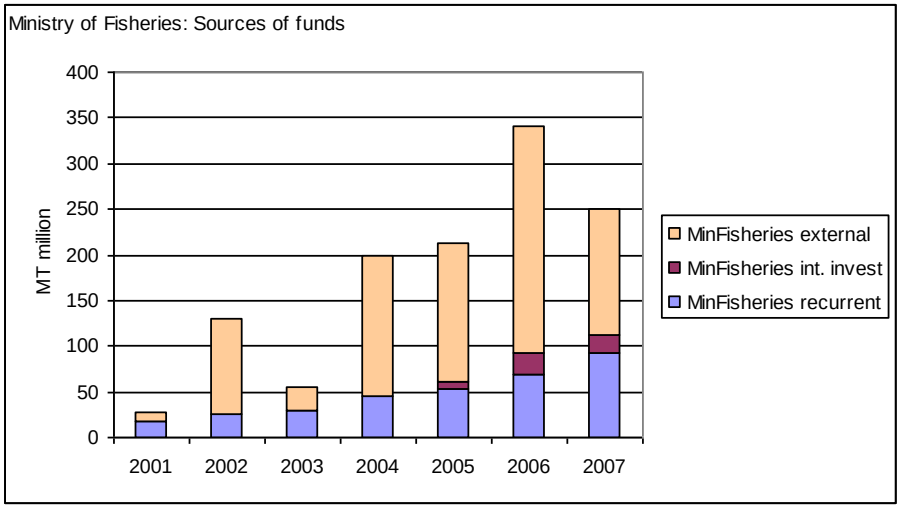
93. The CGE shows the following figures for spending against the ProAgri common fund:

- 2005: MT 605 million (from a total of MT 926 million external);
- 2006: MT 798 million (from a total of MT 1033 million external);
- 2007: MT 870 million (from a total of MT 1121 million external).

It is unclear whether these numbers relating to ProAgri refer to disbursements or actual spending.

94. Spending in the fisheries sector is somewhat volatile, but this is due to the fluctuating spending of external funds, driven by projects. In 2007, 45 percent of spending was against internal sources (Figure 19).

Figure 19: Public spending on fisheries according to sources of funds, 2001–07



Source: AgPER Team, based on data from CGE (Annex II Table 5).

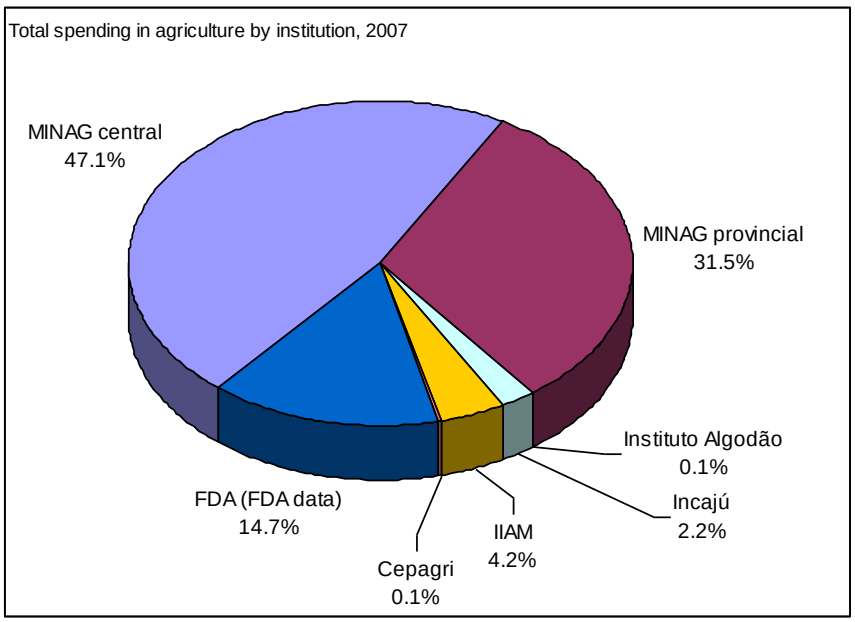
Note: The 2001 data are shown for reference, but external investment is underreported because most of the external investment expenditure was estimated, and not allocated to sectors.

3.5 Spending by organisational structure

95. Over time, the government's financial reports have become more detailed, particularly after the introduction of the e-SISTAFE system. Furthermore, some subordinated institutions have become full-fledged spending units with their own budgets assigned and controlled by the DNCP. Formerly, many of them received the funds from the MINAG and accounted to it for the use.

96. The additional details now available make it possible to present the breakdown of expenditure by spending unit. Figures 20 and 21 show the information for total and internal spending in the agricultural administration. The data are taken from the CGE, and supplemented by data from the FDA's annual reports (since FDA was off-budget until 2008).

Figure 20: Total public spending on agriculture by institution, 2007

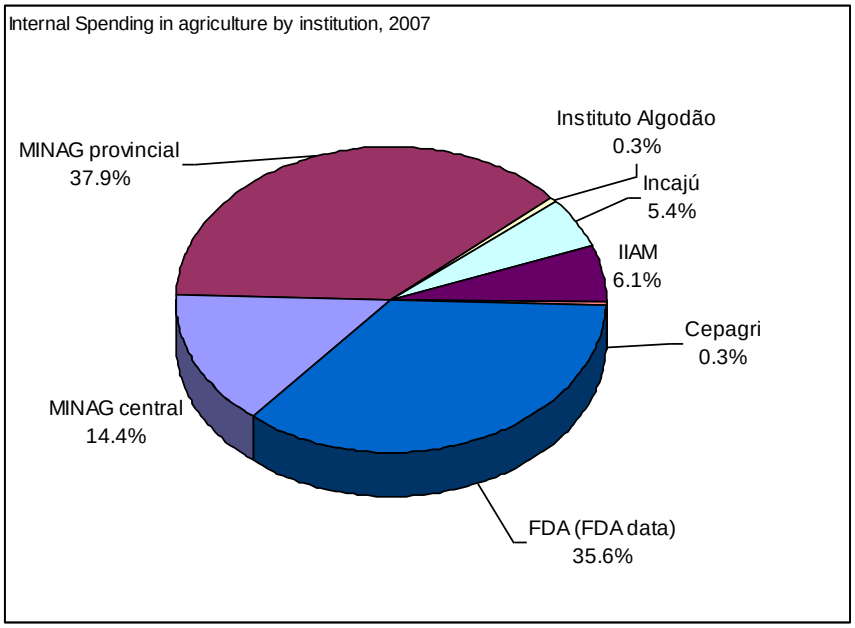


Source: AgPER Team, based on data from CGE 2007 and FDA Annual Report; see Annex II Tables 4 and 5.

Note: CEPAGRI = Agriculture Promotion Center (Centro de Promoção da Agricultura); IAM = National Cotton Institute (Instituto do Algodão de Moçambique); e IIAM = Institute of Agricultural Research of Mozambique (Instituto de Investigação Agrária de Moçambique).

97. Almost 80 percent of total spending (i.e., including spending against sector- or project-earmarked external funds) takes place in the MINAG central and provincial administration. The Agricultural Research Institute of Mozambique (Instituto de Investigação Agrária de Moçambique; IIAM) takes up a mere 4.2 percent of total recorded spending but may have additional projects that are off-budget. The FDA is responsible for 15 percent of overall spending.

Figure 21: Internal public spending on agriculture by institution, 2007



Source: AgPER Team, based on data from CGE 2007 and FDA Annual Report; see Annex II Tables 4 and 5.

Note: CEPAGRI = Agriculture Promotion Center (Centro de Promoção da Agricultura); IAM = National Cotton Institute (Instituto do Algodão de Moçambique); IIAM = Institute of Agricultural Research of Mozambique (Instituto de Investigação Agrária de Moçambique).

98. Looking at spending against *internal* resources (domestic revenue plus GBS) only, a different picture emerges. Central MINAG spends only 14.5 percent of the total, 38 percent go to provincial directorates of agriculture, and the FDA is responsible for 35.7 percent of total internal spending.

3.6 Spending by component

99. The budget and public accounting system do not disaggregate spending of an institution (spending unit) by programmes or components. Disaggregated data are available only if there is a specialised organisational unit that is also treated as a spending unit. Thus, expenditure on research and the commodity institutes can be discerned. Otherwise, though, no breakdown, other than by "central" and "provincial" and by economic classification (type of expenditure), is available.

100. In order to satisfy information needs of the MINAG and of donors, an internal accounting system, named Arco-Iris, was set up in the MINAG

Components in ProAgri

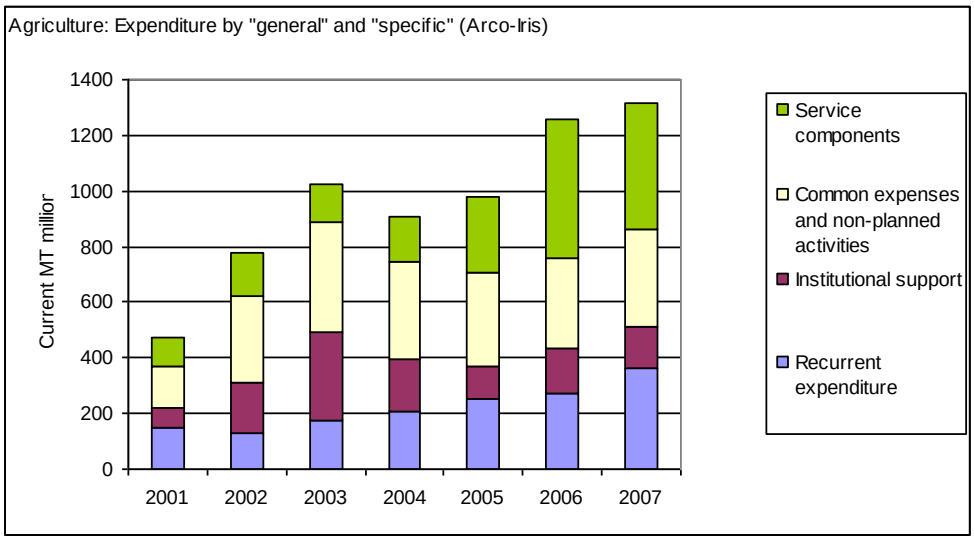
ProAgri components were defined essentially along programmatic lines, i.e., expenditure leading to a bundle of outputs, or services provided by the ministerial institutions. The components are very similar to the standard classification of functions of government (COFOG) functions as well as very similar to the organisational structure of the MINAG.

in 2001. It has gone through several revisions, and coverage has changed over time.[11] It covers only funds that are handled by the MINAG and does not account for funds administered by special units. Thus, the AfDB's small-scale irrigation project, for instance, is not captured. As was shown from Figure 10 earlier in this chapter, the gap is substantial, and the trends of expenditure recorded in Arco-Iris and in the public accounting system are not fully following the same trend.

101. For the expenditure that is covered, Arco-Iris does provide some additional information on spending by components, but the value of the information is limited. Recurrent spending is not broken down by component. Two major categories that refer to overheads rather than specific functions capture the bulk of investment spending. The component "institutional support" refers to funds spent on internal coordinating functions and to items that cannot be allocated to one component, like vehicles and their operating costs at provincial and district directorates and services. A component "general expenditure" appears in the course of the year, and only for provincial expenditure. It is said that accounting staff in the provinces use this classification when they do not know to which component an invoice belongs because it was not written on the invoice.[12]

102. The result is a very high degree of general expenditure, as shown in Figure 22.

Figure 22: Overheads in public expenditure in agriculture, 2001–07



	2001	2002	2003	2004	2005	2006	2007
Recurrent expenditure	31,6%	16,8%	16,8%	23,2%	25,8%	21,6%	27,5%
Institutional support	15,3%	23,2%	31,2%	20,3%	11,8%	13,1%	11,2%
Common expenses and non-planned activities	31,0%	40,1%	38,6%	39,1%	34,4%	25,7%	26,9%
Service components	22,1%	20,0%	13,3%	17,4%	28,1%	39,6%	34,4%

Source: AgPER Team, based on data from Arco-Iris (Annex II Table 7).

[11] See Annex 1 for more details.

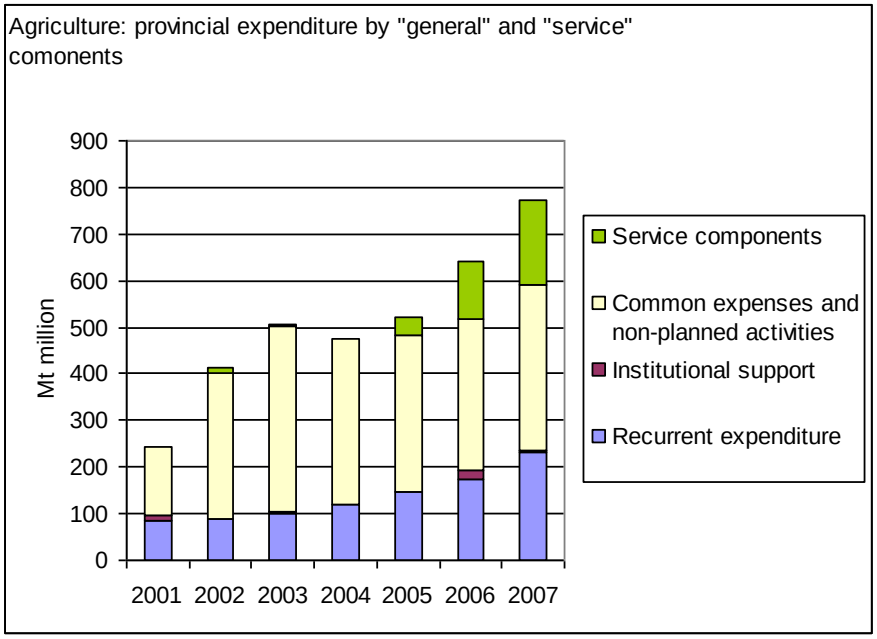
[12] The data entry screen on Arco-Iris has a field for "component" and "subcomponent," but the system accepts if the accountant leaves the default as "general expenditure" (despesa comum).

Note: "Service components" are those components that relate to the direct cost of providing services to farmers. We labled the expenditure on service components "specific" expenditure, as opposed to the "general" expenditure that constitutes spending on the institutional machinery and general overheads not attributable to a specific service component.

103. It is interesting that the weight of the component "institutional support" has come down again from a peak in 2003 of 31 percent of total expenditure to 11 percent in 2007. The weight of service components is on the rise, with weights progressing from 13 percent in 2003 to 34 percent in 2007.

104. As mentioned, the category of "common expenses and nonplanned activities" only appears in provincial accounts, as shown in Figure 23. At the same time, at the provincial level, very small amounts were actually booked under "institutional support." From 2005 onwards, the "service components" start appearing, a consequence of training of provincial accounting staff. Nevertheless, common expenditures continue to dominate the picture.

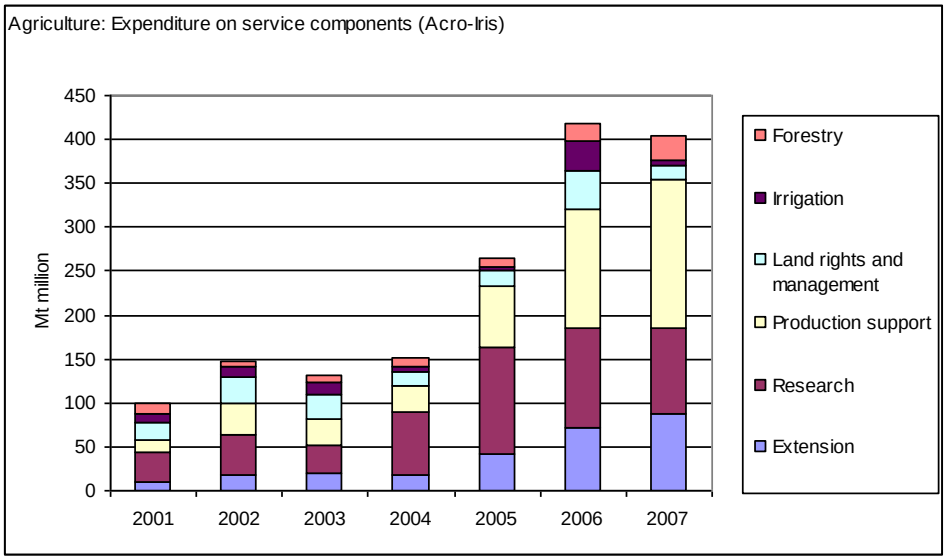
Figure 23: Overheads in *provincial* public expenditure in agriculture, 2001–07



Source: AgPER Team, based on data from Arco-Iris (Annex II Table 7).

105. Since it is unclear whether all components were affected equally by the phenomenon of expenditure being booked onto general categories, looking at the structure of the specific expenditure cannot provide much insight. But for the curious, Figure 24 shows the composition. Note the different scales of the vertical axis in the two graphs in Figure 22 and Figure 24.

Figure 24: Structure of expenditure on service components, 2001–07



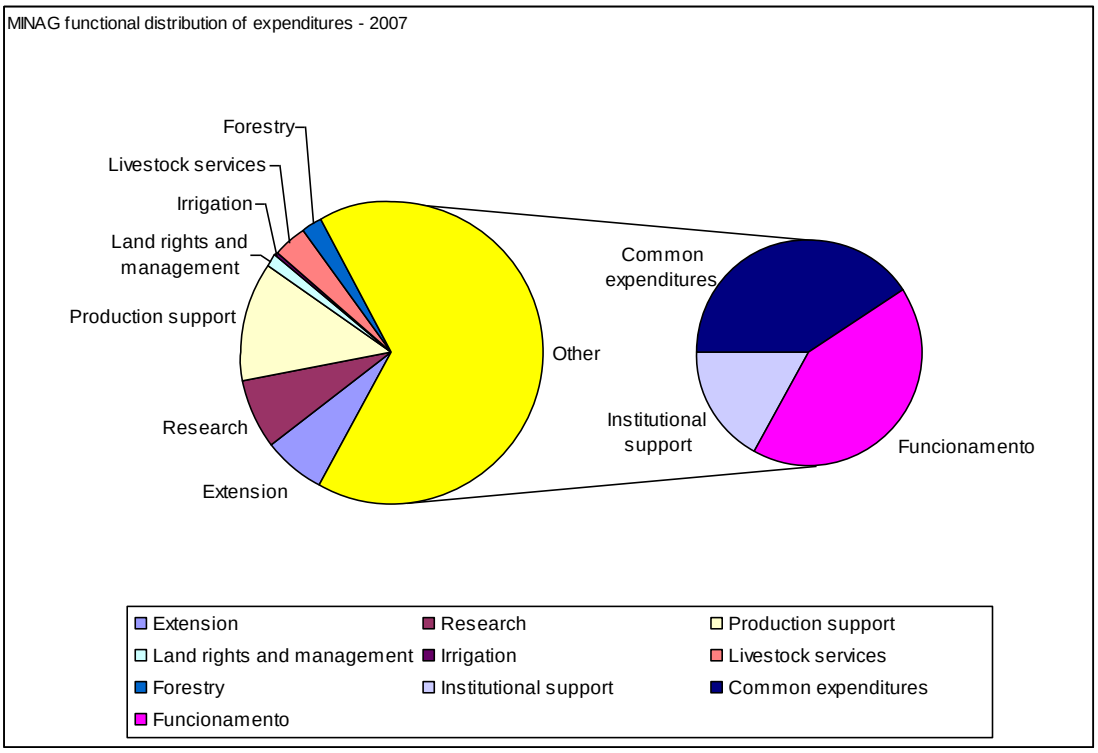
Source: *Source*: AgPER Team, based on data from Arco-Iris (Annex II Table 7).

Note: "Irrigation" refers only to irrigation expenditure controlled by MINAG, thus excluding the two main small-scale irrigation projects financed by AfDB and Italy.

106. Expenditure on extension appears to have increased; but this may be a real increase, or simply the result of more careful classification of expenditure.

107. Although classification is improving, the weight of general expenditure (overheads) is still too high for making meaningful comparisons between spending and results by component or function.

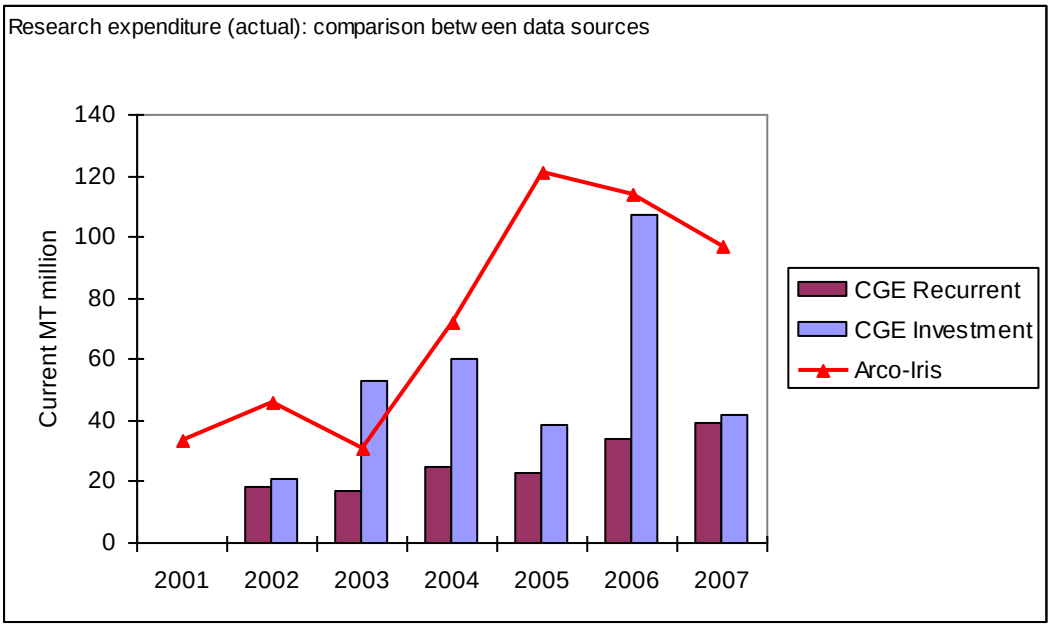
Figure 25: Functional distribution of expenditure, 2007 (MINAG and institutes, but excluding FDA)



Source: AgPER Team, based on data from Arco-Iris.

108. It is noteworthy that, according to Arco-Iris data, expenditure on research has increased between 2004 and 2005 and delined moderately in 2006 and 2007. Figure 26, which makes a comparison between CGE data and Arco-Iris data, tells a different story. Note that Arco-Iris only disaggregates "investment" expenditure by component or function.

Figure 26: Comparison of data sources on expenditure on agricultural research, 2001–07



Source: AgPER Team, based on data from CGE and Arco-Iris. See Annex II Tables 5 and 7.

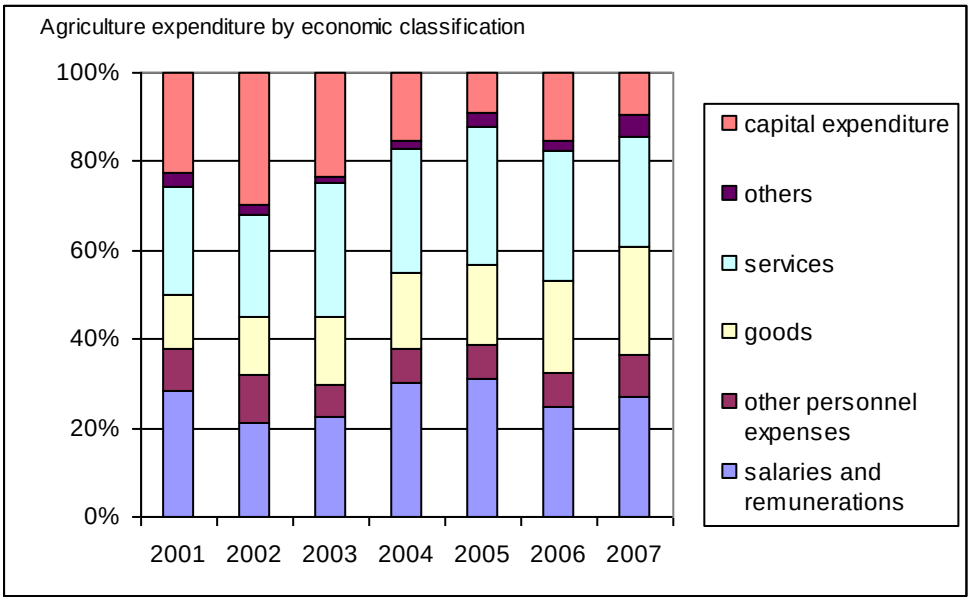
Note: Research expenditure from the CGE refers to expenditure shown for "research services" up to 2004 and for IIAM and its predecessors from 2005 onwards. Expenditure of zonal research centres is likely to have been included in the spending of provincial directorates for agriculture and is therefore not captured in the data underlying this figure.

3.7 Type of expenditure

109. Arco-Iris is a reasonable source for information about the economic classification of expenditure. It registers expenditure by economic classification that is identical for recurrent (*funcionamento*) and project (*investimento*) expenditure. The MF insists on the presentation of details about the type of expenditure, so this classification is likely to be reasonably accurate in Arco-Iris, since it was the basis for the tables sent to the DNCP.

110. Since Arco-Iris does not capture the irrigation projects, it is not surprising that there is little actual capital expenditure recorded. At the same time, it is noteworthy that salaries and "other personnel expenditure," which includes per diems, remains well under 40 percent (Figure 27).

Figure 27: Agriculture expenditure by economic classification (Arco-Iris, all levels), 2001–07

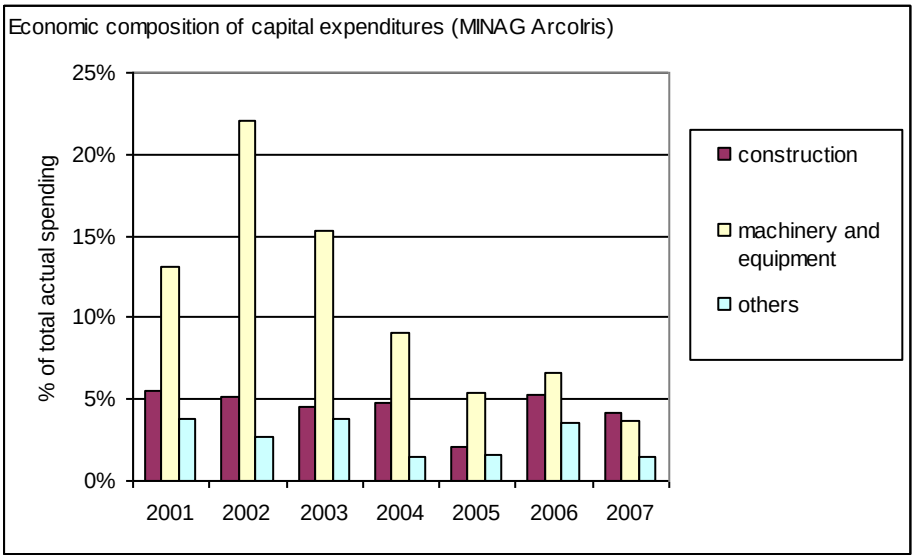


Source: AgPER Team, based on data from Arco-Iris (see Annex II Table 6).

Note: The "services" category also includes spending on statistical surveys, the annual audit, and most technical assistance purchased through companies. Spending of INCAJU is included in the series.

111. The explanation for the initial rise and then continuous fall of capital expenditure can be seen from its composition. "Construction" refers mainly to rehabilitation works of directorates and services, and the "machinery and equipment" section to vehicles and computers and networks. The machinery and equipment part shot up in 2003 when significant amounts of ProAgri funds were used to improve mobility of field staff and for the rehabilitation and equipment of offices in provinces (Figure 28).

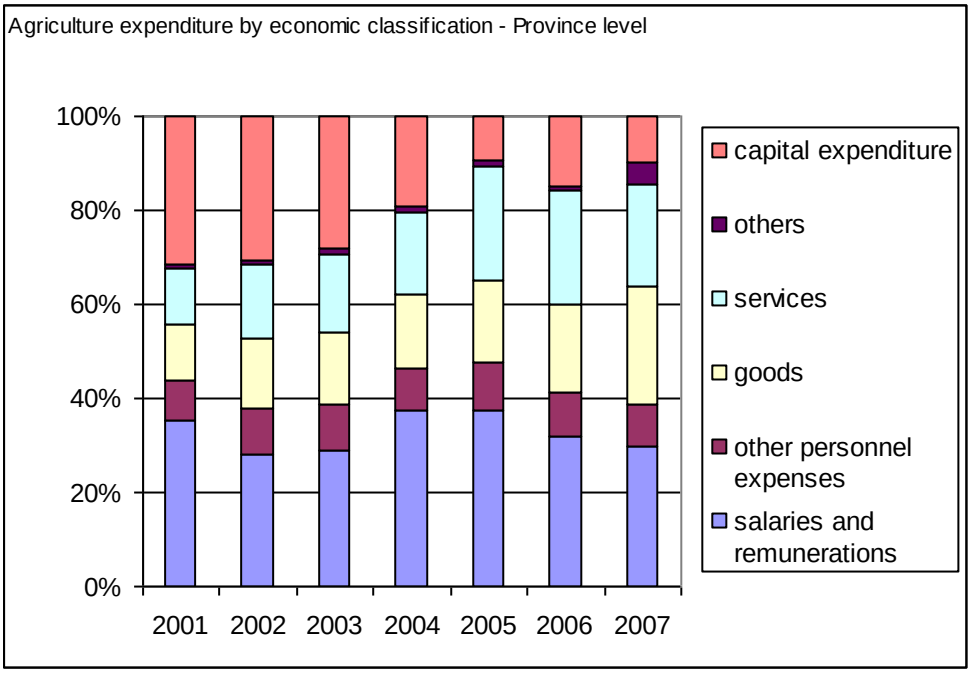
Figure 28: Economic composition of capital expenditure (Arco-Iris), 2001–07



Source: AgPER Team, based on data from Arco-Iris (see Annex II Table 6).

112. Focussing on provincial-level expenditure (Figure 29), i.e., expenditure through the provincial directorates, provides interesting additional information, for two reasons. First, this excludes the institutes and in particular INCAJU, which spends substantial amounts on spraying of trees and the distribution of seedlings. Second, a number of items (often vehicles, vaccines) tend to be procured and accounted for by the central level and sent to the provinces in-kind. Therefore, the expenditure shown for nonpersonnel expenditure for provinces is likely to be on the low side. Nevertheless, even then, expenditure on personnel (salaries of personnal staff and others, including per diems that are part of the "other personnel expenses") is well under 50 percent of total provincial expenditure. This could indicate that, in fact, there are substantial amounts of funds available for operations and maintenance, *or* that the amount of goods provided to farmers is higher than generally thought. The phenomenon, often observed in other countries, that personnel costs leave little space for funds to go to the field or to buy materials, cannot be seen in Mozambique.

Figure 29: Agriculture expenditure by economic classification, local level (Arco-Iris), 2001–07



Source: AgPER Team, based on data from Arco-Iris (see Annex II Table 6C).

3.8 Planned versus actual budget

113. For the MINAG and provincial directorates and on-budget institutes, actual spending has been around 80 percent of the initial, approved budget in the years 2005 to 2007. The rates, however, fluctuate significantly. Execution rates are not satisfying. However, apart from this general conclusions, no figures are presented on this issue, because of the weakness of the data. As is said elsewhere, the original budget may or may not have included the full amounts of earmarked revenues (for the INCAJU and IAM); and traditional projects tend to be overbudgeted and underreported.

114. Furthermore, many of the factors that caused budget execution rates to be low in the past have been removed with the roll-out of e-SISTAFE (see Annex 1 for more details). Among these are the "*duodécimo*" (one-twelfth) system of cash management and the need to advance large amounts of bank balances to provinces and provincial directorates in the beginning of the year.[13] Three causes remain:

a) The procurement process is slow, also because all contracts above a rather small amount have to be approved by the Administrative Court (Tribunal Administrativo).

b) Spending units have to close accounts of the previous year before they are allowed to spend the new year's budget. For the agricultural sector, where the change of the fiscal year falls into the middle of an agricultural season, this is a serious constraint.

c) Disbursements of contributions of donors to the common fund have become more timely, but there are still delays, for various reasons. Since spending in agriculture is time-critical, it means that activities not undertaken cannot be undertaken later.

115. The procurement rules are under review, and one can hope that pending modifications will accelerate the processes. Continued attention has to be paid to compliance with the disbursement conditions for the various donors—the contributions have to be managed carefully.

3.9 Public and private goods

116. Many PERs make the useful distinction between spending on public goods and on private goods, respectively. Public goods are the essential public services that the market cannot provide but that, at the same time, are essential for a prospering agriculture sector. Among these are quality control, pest and disease control, definition and implementation of adequate policies and rules, and, in most cases, extension services. These public goods do not necessarily have to be provided by the state, but have to be publicly financed. In Mozambique, irrigation would also be considered as a largely public good.

117. Private goods are those that, in principle, could be provided by the market because their use is exclusive and competing; therefore, the beneficiary can be expected to pay the price for the provision of the good or service.

118. A further group that is often used to classify expenditure is social goods, for instance subsidies paid to farmers because this is thought to be less costly than providing food aid or dealing with the influx of large number of people into urban areas.

119. For Mozambique, the distinction is difficult to translate into figures and percentages because the available spending data do not allow us to make that distinction. But one can apply a broad, very tentative assessment of the degree to which the system of the MINAG provides private goods:

[13] It is noteworthy that most of the constraints to budget execution mentioned in the 2003 PER Phase 2 report have been removed and resolved.

- The INCAJU spends most of its resources on providing low-cost seedlings for a programme of rejuvenation of cashew trees and for spraying.
- The FDA provides subsidised inputs (from seeds to fertilizer, and from tractors and oxen).
- The assumed 50 percent of the district investment funds is earmarked for food production and employment creation finance exclusively private goods.

120. Social goods are provided mainly in the context of distribution of seeds and other inputs in desaster areas.

121. Otherwise, there are few private goods financed by the MINAG. But the situation is about to change in view of the targets of the PAPA, where the provision of highly subsidised inputs, particularly of seeds and fertilizer, are planned in order to accelerate the adoption of modern techniques by farmers who produce the targeted products.

4. SELECTED ISSUES IN VIEW OF CURRENT CHALLNGES

122. After the presentation of trends, current situation, and challenges facing the agricultural sector in Mozambique, and after having reviewed the basic expenditure data in the previous two chapters, this chapter provides detailed analyses on selected topics and issues. The selection was guided by three criteria:

- The topic requires that costs and spending be taken into account when making choices about policies.
- It touches on a challenge arising from the policies in discussion or in the process of being operationalised.
- The topic relates to an important issue that is prominent in the debate internal to the sector, or between the sector and those providing funding for agricultural services.

123. The aim is not necessarily to provide conclusive answers to arising questions and issues, but to contribute towards structuring the discussion and negotiations and provide some basic data and conceptual guidance that might facilitate the search for answers for policy design and negotiations about allocations of funds.

4.1 Current challenges and arising issues—overview

124. The challenges and subsequent policy response give rise to a number of questions that could find a partial answer in this AgPER. Many of them, though, are beyond the scope of this study; preparing specific studies on these issues may be appropriate and timely. Nevertheless, this AgPER, with its inherent focus on the relationship between priorities, resulting activities, and costs can provide some numerical and conceptual orientation that can be useful for management and strategic decision making.

125. The following questions and issues, which require a simultaneous analysis of spending requirements and expected effects, should be analysed in this AgPER or in another context:

(a) Is the overall level of public expenditure for agriculture adequate and sufficient?

126. The Maputo Declaration of the African Heads of State, adopted in 2003, stipulates that 10 percent of the national budget should be allocated to public spending for agriculture. Where does Mozambique stand with regard to this target? Section 4.2 of this report gives an answer, and makes a comparison with other countries on the basis of public expenditure on agriculture relative to the sector's contribution to GDP and spending per capita of the rural population (used as a proxy of the number of people whose main source of income is agricultural activity).

127. Obviously, the quality of public spending on agriculture is at least as important as the overall amount. Spending large amounts on unselective subsidies is generally considered to

be a highly inefficient way to increase production and rural income in a sustainable way. The challenge of designing effective activities and monitoring the results requires research and investigation mainly at the local level.

128. A related issue is whether additional spending on agriculture and fisheries alone can be effective. There may be other constraints in the areas of markets and marketing channels, processing in agro industries, availability and feasibility of seasonal credits and insurance products, and the road network. An earlier, never officialised PER of 2003 came to the conclusion that extension appears to be only a little effective. Again, the answers would require extensive work in specific areas, which are beyond the scope of this study.

(b) Is private investment in agriculture taking place and at required levels?

129. In most cases, investment is necessary in order to increase agricultural production. Investment can also contribute towards improving labour or land productivity. What information is available about the level of private investment in the sector? Are there impediments that need to be removed? Can a case be made for spending public funds in order to incentivate private investment? Are there indications that public expenditure on the core functions has increased the attractiveness of investment in agriculture?

130. This question is also addressed in this AgPER (see Section 4.4), although the results are disappointing: there are no useful data available to even estimate the amount invested by the various groups of farmers and agricultural industries.

(c) Agricultural research: Is funding adequate? Can research results be produced quickly enough so that the PAPA targets can be achieved?

131. Agricultural research is often said to be the most effective and economically profitable type of public expenditure in the sector. In Mozambique, the research institute, IIAM, produces basic seeds that are required by seed producers for multiplication, but also develops new techniques, and develops and tests new varieties. Is the level of funding for research in Mozambique adequate and in line with international practices? How quickly can increased spending levels be expected to lead to improved performance of the agricultural sector in terms of production levels and productivity of labour and land?

132. A section of this AgPER (Section 4.6) looks into this issue in more detail.

(d) Irrigation: What can be learned from the past in order to expand irrigated areas to meet the objectives of the PAPA?

133. In the annual agricultural survey TIA, a large number of the sample interviewed stated that they had lost a complete crop due to natural effects. Floods and disease play a role, but most losses are due to lack of rainfall in critical periods of the year. Expanding areas under irrigation could be the remedy, and being independent of unpredictable rainfall conditions would, evidently, reduce farmers' risk and make the use of modern inputs—such as improved seeds, chemical fertilizer, and pesticides—more attractive.

134. In Mozambique, irrigation is considered a public good. The state finances the irrigation scheme, while users are supposed to cover the operating costs and eventual replacement of equipment with a limited lifetime.

135. As a background study for this AgPER, the EC contracted an in-depth study on the irrigation subsector, a study that presents a number of lessons to be learned and factors to take into account when planning and implementing irrigation schemes. Section 4.5 presents the main conclusions of the study.

(e) Planning and budgeting in a decentralisation context: What improvements in expenditure planning are required for improved alignment of spending to objectives?

136. As has been seen from the broad analysis of spending in Chapter 3, spending data by function or by subsector are so incomplete that neither the effectiveness of spending nor the alignment to objectives can be seriously assessed. Therefore, it is not possible to analyse whether results are commensurate with expenditure, or to identify areas where savings can be made in order to reallocate funds to important subsectors that underperform due to the lack of funds. Studies on the ground would be required to identify areas of activity that are subfinanced relative to others.

137. If these data are not available, how rational can a budget preparation process be? Budgeting is frequently about making decisions and weighing priorities in situations where the information base for taking informed decisions is far less than adequate. Nevertheless, decisions have to be taken, and more rational allocative decisions can result from decentralised decision-making and making choices explicit.

138. Donor behaviour plays an important role in this context. When donors earmark funds, they effectively establish a minimum funding level to the set of activities or to the functions that benefit. External aid will become more flexible only if the process and its results are convincing. Therefore, transparency is as important as a result-oriented planning approach. Budget preparation based on the costing of activities has dominated budgeting in the past year. If changes are required, donors will have to be pulled into the boat, and something more meaningful than the present PAAOs has to be developed and presented to the sector donors.

139. The question about how to deal with this situation and to provide space for adjustments, at the different stages of the budget preparation and execution process, is the subject of Section 4.3. That section also deals with the aspect of protecting core functions of a public agriculture administration against drainage of funds motivated by activities of a temporary nature that would bring at least short-term results with regard to politically set targets.

(f) Is the spacial pattern of public spending in agriculture based on priorities?

140. A significant amount of public spending in agriculture is managed by the provincial directorates for agriculture, which hand part of the funds down to districts. Provinces are especially responsible for the core functions, i.e., the essential public services that the state has to provide in order to create the appropriate regulatory environment and some support

services (like vaccinations, disease control, extension services). Is the spatial allocation pattern reasonable, or skewed in favour of some and to the detriment of other provinces?

141. Section 4.7 will relate expenditure channelled through provincial directorates to some characteristics of the provinces, analyse disparities, and suggest criteria for defining provincial financial envelopes.

Other issues not dealt with in-depth in ths AgPER

142. In view of the challenges that, in particular, the PAPA constitutes, there are several arising questions that this AgPER does not deal with, either for lack of time and resources or because other instruments would be required to answer the relating questions. Among these, the following are worth mentioning:

Cost and effectiveness of input subsidies

Since the advent of the Green Revolution Strategy (Estratégia da Revolução Verde, dated 2007), and supported by international trends and examples, input subsidies have become more acceptable and even fashionable in Mozambique as well. However, many open questions remain, such as these:

- Should subsidies on inputs be granted across the board or selectively to special development regions for selected crops?
- Are subsidies expected to be granted "forever" or for a limited period in special circumstances, which, obviously, requires that criteria for subsidies be defined and published?
- What is the rationale for subsidies in an environment that, in principle, relies on market forces? How can they be defined? For example, subsidies could be seen as a means to counteract the failure of credit markets for seasonal loans, designed to allow farmers to accumulate sufficient own capital in order to prefinance input supplies. They could also be designed to permanently subsidise certain groups of poor farmers that would otherwise migrate to urban areas, where they would tend to become a burden to society in other respects. Alternatively, they could be seen as a temporary measure to enhance production and thereby provide incentives to traders and suppliers of inputs to improve the development of markets for the products. Subsidies could also be granted in order to reduce the risk of experimenting with new technologies, which may be an important factor for modernising agriculture in an environment where farmers tend to be risk-aversive (generally for good reasons)?
- Is there, and should there be, an exit strategy?
- What kind of economic analysis should be carried out in order to ensure that the subsidies lead to economically profitable agricultural production, even though the production may not be *financially* viable from the point of view of the individual farmer without the subsidy?

This AgPER does not analyse these questions which are, however, becoming important in the light of emerging subsidies schemes in the context of the PAPA.

Another reason for not including the issue in the PER is that guidelines are relatively well documented.[14] The main recommendations are these:

- It should be clear and stated explicitly what the subsidies are meant to achieve, in particular, whether they are meant to compensate the effects of market failures or subsidise subsistence farmers who would otherwise migrate to urban areas in a situation where food aid distribution is more costly than subsidies would be.
- Paying subsidies to compensate for lack of access to credit makes sense only when they allow farmers to accumulate enough working capital to become independent of seasonal credits that are not available. The schemes should be temporary, with an announced ending period.
- Temporary subsidies on some modern inputs may also serve to accelerate the acceptance of new technologies by farmers. Farmers tend to be more risk-averse than is the society as a whole. Therefore, there can be a rationale for selling improved seeds and related inputs at subsidised prices for a certain period. However, the subsidies need to be granted only to farmers who agree to *try and test* new technologies, and be phased out after a short adoptation period. The economic and financial viability of the technology has to be shown before subsidies are considered.
- Input subsidies cannot compensate the lack of markets and marketing channels. However, they may be useful if efforts are undertaken to *simultaneously* develop markets and marketing channels in a cluster approach. The subsidies should be paid for a selected group of farmers in an area where markets are expected to develop (i.e., not across the board), subsidies should be granted for a limited period, and an exit strategy should be defined.
- Subsidies should preferably be designed as "smart subsidies," i.e., in such a way that they give an incentive to markets to develop, rather than replace private sector activities. Vouchers with which farmers can acquire improved seeds and fertilizer in trade fairs are a step towards developing input trade and creating places where farmers and input suppliers can meet. Distribution of the inputs through the public agricultural services, on the other hand, would marginalise unsubsidised rural trade and prevent the emergence of rural markets.

The impact of public services in agriculture

Have public services resulted in increases in production and rural income that exceed the cost of providing them? This issue is normally analysed in a spending review, but more micro work is required in order to provide an answer. Growth may not even be a reasonable expectation because public services are also required to maintain a given level of agricultural production, for instance by way of disease control, adequate regulation on land ownership, and routine production and reproduction of basic seeds.

The public sector provides public goods and some incentives and direct interventions, which may ultimately result in higher production and higher and more secure income

[14] See, for instance, the World Bank's *World Development Report 2008* and the policy briefs that can be found at http://go.worldbank.org/ZJIAOSUFU0.

for the farming community. However, the attribution gap cannot be dealt with from a national, global perspective. There are many factors other than state interventions and public goods that determine levels of agricultural production and income of farmers, weather and rainfall, of course, being the single most important ones.

It is hoped that the upcoming value-for-money audit will provide some answers with regard to the impact of activities of public agriculture services. It is suggested that the issue be pursued at the provincial level and by way of case studies. The suggested methodological approach would be to formulate hypotheses about how public expenditure and the resulting outputs contribute to improving conditions for and production of agricultural goods, and checking whether this chain of causes and effects is working.

Value chains and complementary public goods

Modernising agriculture and promoting structural changes of the rural economy requires more than increases in production. Farming enterprises need to find a market, which implies the existence or emergence of marketing agents, transport and storage facilities, processing units, and finance, in addition to an efficient supply of inputs to farmers. There is little advantage in providing incentives for production increases if markets cannot absorb the produce or if the markets cannot be reached. Therefore, an important choice is whether increased public spending in agriculture alone will have the desired impact. Should additional funds be put into improving research and extension, or should they be used to open up and improve roads or build public storage facilities?

The choice is relevant, but answers cannot be global; the choice depends on the locality and the product. Therefore, no answer can be provided in this AgPER. But the point underlines the need for close coordination between the different government agencies involved at the local (district and province) level, and the need for planners in agriculture to focus also on markets and not only on yields.

4.2 Level of funding for agricultural services

143. A number of recent studies have observed that public expenditure on agriculture has not kept up with the growth of expenditure in other sectors over the past 10–20 years. In almost all developing countries, with some notable exceptions in Asia, the share of agriculture-related expenditure in overall budgets has declined.[15] Two factors are behind this development:

a) Most countries in Africa have redefined the role of the state in economic sectors and in agriculture. Some 15 years ago, many African countries were intervening directly in markets, ran state monopolies for marketing and often processing, and were often

[15] As an example and for an overview, see Stephen Akroyd and Prof. Lawrence Smith, "Review of Public Spending to Agriculture," Oxford Policy Management, Oxford, January 2007 (final draft); and Oxford Policy Management, "The decline in public spending to agriculture: Does it matter?," OPM Briefing Notes 2007-02, both available from www.opml.co.uk.

subsidising agricultural inputs in order to allow farmers to produce in spite of controlled prices. Nowadays, direct interventions have become rare, as the role of the public agriculture administration is seen as providing *public* goods, while leaving to markets what can be provided by the private sector when and as competitive and efficient markets develop. Research, extension, regulation, and pest control are therefore considered as the prime core functions of government. Obviously, refraining from paying large-scale subsidies and operating loss-making marketing boards have led to a significant reduction of public spending on the sector.

b) The adoption of the Millennium Declaration in 2001, the rising importance of poverty reduction strategies as a basis for debt relief, and the need to monitor progress against the PRSPs have sharpened the focus on social sector performance. Attention to other sectors where government interventions only complement private sector activities has concentrated on creating an enabling environment. Measuring performance is generally easier in social sectors than it is with regard to the provision of complementary public services for sectors in the domain of market-driven development. The need for measurable indicators has, to some extent, led to a focus on social services for technical reasons.

   Of course, the MDGs include the poverty reduction goal, and there is broad consensus that this can only be reached with sustained and high growth rates and economic activities of the private sector. Nevertheless, the MDGs go into more detail with regard to social sector targets and indicators, and remain only at a broad impact level with regard to the poverty reduction goal. In practice, the growth prerequisite for poverty reduction sometimes drifted out of focus.

144. The second point led to the recommendation that governments should pay more attention to creating income for the poor than they have under the first generation of PRSPs and during the time of structural adjustment in the late 1980s and early 1990s. Many of the poor live in rural areas, and acceleration of agricultural growth through smallholders is likely to be an equitable and effective way to reduce poverty through sustainable income generation.

145. In July 2003, the heads of state of the AU took up the issue and resolved that "we agree to adopt sound policies for agricultural and rural development, and commit ourselves to allocating at least 10 percent of national budgetary resources for their implementation within five years," as part of a bundle of measures designed to revitalise agriculture and ensure food security.[16] This, known as the Maputo Declaration, was adopted against the background of a CAADP, for the support of which the 10 percent commitment was made.[17] The CAADP is structured into four pillars, namely

1. Land and water management,
2. Market access
3. Food supply and hunger, and

[16] African Union: Declaration on agriculture and food security in Africa. Assembly/AU/Decl.4 (II), 2003, Page 10.

[17] For status reports and additional information, see www.caadp.net.

4. Agricultural research.

146. The target was operationalised in a workshop in Johannesburg in September 2005. The guidance note, published in the name of NEPAD, specified that (i) it is actual expenditure, not appropriations that should be taken to measure achievements with regard to the target, (ii) the percentage is to be calculated using an all-inclusive definition of "national budgetary resources," and (iii) while some countries may well need to spend more, the 10 percent is to be considered as a "baseline platform for agriculture spending." [18]

147. In this section, we present the current figures for Mozambique, and use some other indicators that are useful for answering the question whether public services to agriculture are indeed underfunded.

4.2.1 Estabishing the reference

148. The guidance note issued by the NEPAD secretariat stipulates that the total of expenditure, to which expenditure on agriculture services is compared, should be all-inclusive. But looking at the composition of overall expenditure is instructive when analysing the share of agriculture.

149. The budget and financial reports in Mozambique show expenditure in two blocks: one part by institution (ministry or autonomous institute), and a second part relating to general expenditure (*encargos gerais do Estado*; EGE). Expenditure against external sources is included in principle, but there have been and still are problems in capturing these in financial reports.

150. The institutional expenditure block covers recurrent and project expenditure for central institutions, provincial directorates and districts. Municipalities are not covered. There is a limited amount of special expenditure on goods and services that are administered directly by the MF; we added these to institutional expenditure.[19]

151. Main items included in the block of general expenditure are these:

- *Active financial operations*, which is outlays for the acquisition of capital participations of public and private enterprises and treasury loans to enterprises. The bulk of the treasury loans is related to on-lending of external grants or loans to government as loans to productive, mainly state-owned enterprises. Most of the financial operations are expenditure items that relate to additional resources.

  The high value of 2005 is due to additional equity in the central bank that was required because of high exchange losses in the previous year. It was financed by the emission of additional treasury bills and obligations.

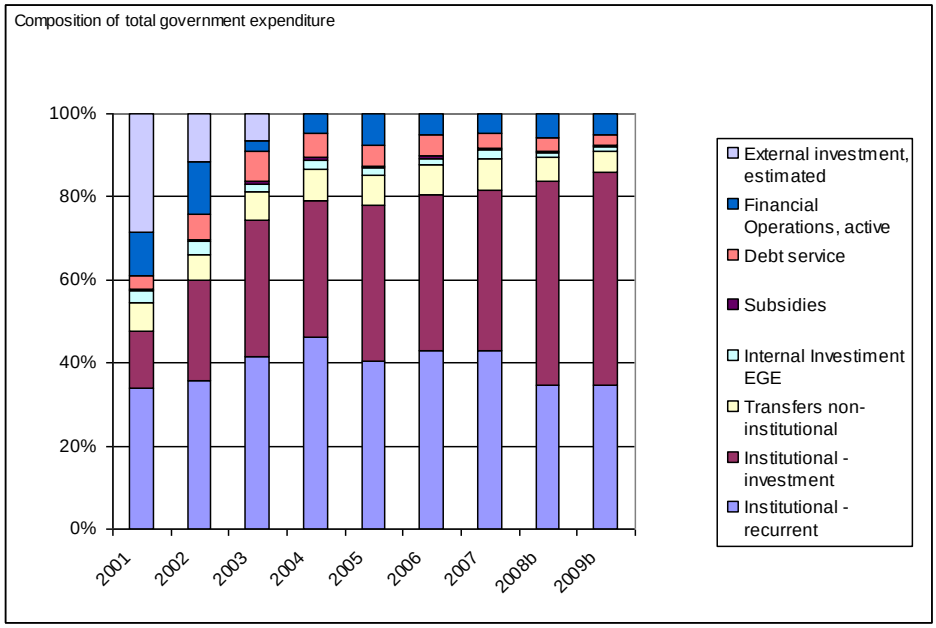
[18] African Union and New Partnership for African Development (NEPAD): Guidance note for agriculture expenditure tracking system in African countries. September 2005

[19] These include payment for pre-shipment inspection and special events.

- *Transfers* under general expenditure are to families and to private and public administrations. Pensions and social transfers are the bulk of this item. Financing to political parties and transfers to municipalities are also included.
- *Debt service* consists of interest and charges on internal and external debt as well as the amortisation of external debt. We did not include the repayment of internal debt because it is generally compensated by new emissions of financing instruments, i.e., internal debt is rolled over.
- EGE under *internal investment expenditure* are normally shown under investment. However, the line refers to payments of import-related taxes on goods imported in the framework of a project inscribed in the budget. This expenditure is not disaggregated by ministries, which is the rationale for showing it separately in the following graphs.

152. The category *estimated external investment* appears only up to 2003 (the top part of the columns in Figure 30). In the beginning, the DNCP had only very limited information on spending of externally funded projects, sometimes even when it was based on loans to government but where disbursement was following special procedures. But since the budget included many of these projects, attempts were made to at least estimate, in one way or another, the overall amount spent, even though no verifyable information was available with regard to the type of expenditure and even the sector. As a consequence, large amounts appear in the overview table of financial reports as *estimated* investment expenditure against external funds, but are not broken down and therefore not reflected in the tables that show spending by sector.

Figure 30: Share of institutional and general spending in total public expenditure, 2001–09



Source: AgPER team, based on: 2001–07: actual expenditure from CGE, various years; 2008–09: budget. See Annex II Table 2.

153. The amounts of externally funded investment expenditure not attributed to spending units in the CGE are significant: 88 percent of total externally funded investment

expenditure in 2001, 42 percent in 2002, and 22 percent in 2003. The problem of incomplete reporting did not fully disappear from 2004 onwards, but is not reflected any more because, from 2004 onwards, DNCP refrained from including spending on which it did not have enough information to determine the sector or estimate the structure of spending at least on the basis of the breakdown that was provided in the budget. Therefore, reported expenditure on externally funded investment expenditure declines in 2004.[20]

154. Currently, institutional expenditure accounts for approximately 80 percent of total expenditure. On-lending and pensions and social benefits paid through the Institute for Social Action (Instituto Nacional da Acção Social; INAS) consitute the largest item of the general expenditure. However, prior to 2005, the share of institutional expenditure was considerably less, mainly because of the large portion of externally funded investment expenditure that was not broken down by spending unit.

155. In the following section, where spending of agriculture is related to total spending, we will use two references as "the 100 percent":

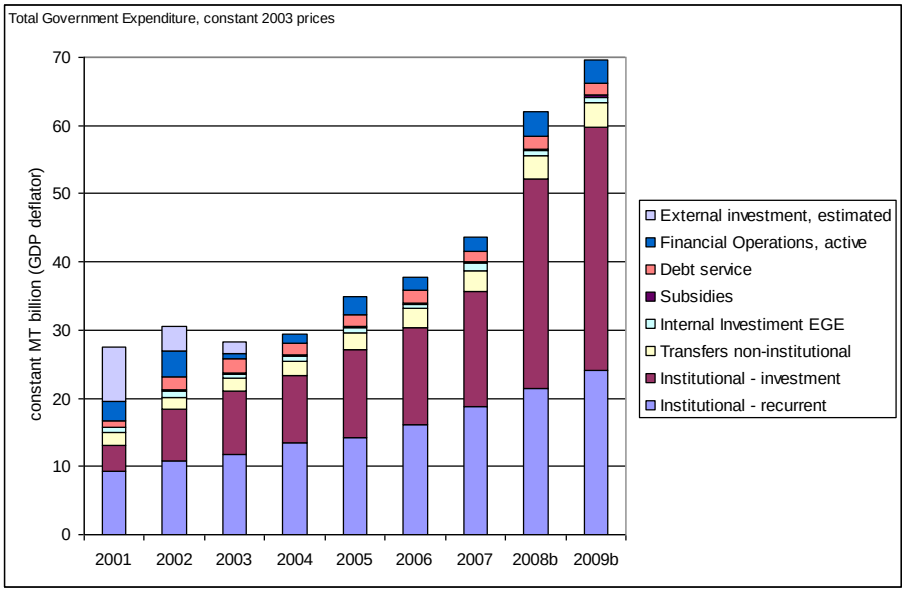
(a) total expenditure, as stipulated by NEPAD's methodology, and

(b) institutional expenditure, which better represents the distributable total, i.e., the total of expenditure the distribution of which one would expect to vary in accordance with political objectives and priorities.

156. Included in Figure 30 are the years 2008 and 2009, with numbers taken from budget documents. The relative decline of recurrent expenditure is a reflection of the apparent increase of investment expenditure. This may be "for real" to the extent that large external contributions have started to be on-budget in 2008 and 2009. But it is also a reflection of the phenomenon that project expenditure against external earmarked funds tends to be overbudgeted and later underreported, for lack of access to adequate information by the DNCP**.** This is a common phenomenon whenever time series switch from financial report data to budget estimates.

[20] Part of the decline may also be due to exchange rate fluctuations towards the end of that year.

Figure 31: Total government spending by broad categories of expenditure, constant 2003 prices, 2001–09

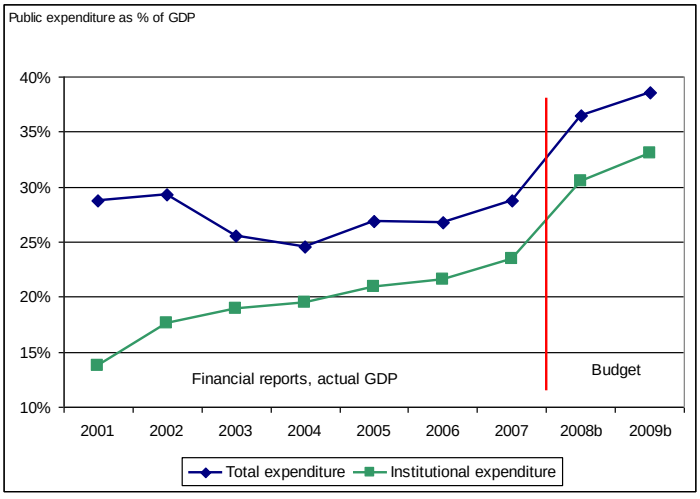


Source: AgPER Team, based on data from CGE (2001-2007) and OE (2008 and 2009). See Annex II Table 2.

157. Total expenditure has been increasing in real terms particularly from 2005 onwards (Figure 31). The steep increase from 2007 to 2008 is, presumably to a significant degree, due to the switch of data source from financial reports to budgets, as mentioned above.

158. The weight of public expenditure in GDP has been rising over time (Figure 32). The steep increase from 2007 to 2008 is due mainly to the switch of source data from "actual" (up to 2007) to "budget" (from 2008 onwards).

Figure 32: Public expenditure as percent of GDP, 2001–09



Source: AgPER Team, based on data from CGE, OE (for 2008 and 2009), INE and GDP projection in OE statement (*Fundamentação*).

4.2.2 Share of broad agriculture spending in government spending

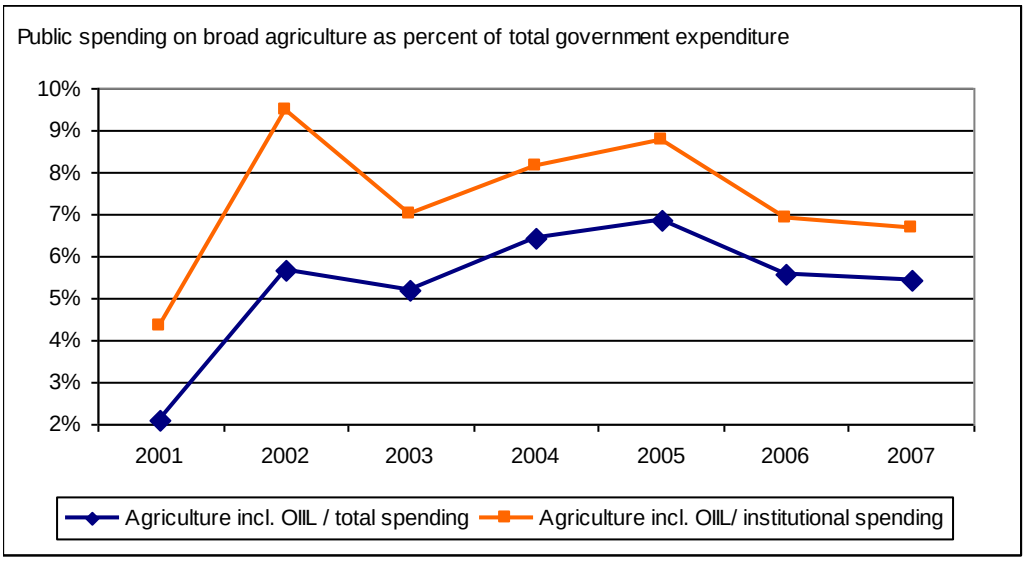
159. Public spending in agriculture (in the broad definition including the MINAG, the MP, the FDA, part of spending channelled through DNPDR, and spending on the large-scale irrigation schemes in Gaza Province) has recently absorbed under 7 percent of institutional expenditure and 5.5 percent of total expenditure, and thus well below the 10 percent set by NEPAD. This conclusion is based on a set of data that might underreport the execution of on-budget projects and does not include off-budget contributions by donors.

160. The figure for spending in agriculture for 2007 includes 50 percent of the OIIL in 2007. Without the OIIL, the share in 2007 would have declined by a further 0.5 percentage points.

161. As for the trends and variations shown in Figure 33 and Table 8, the interpretation is not straightforward. The decline from 2005 to 2006 as well as the rise from 2003 to 2004 is due largely to fluctuations of spending on the large-scale irrigation projects in Gaza province. The trend after 2005 has been influenced downward because the common funds for health and education have been brought on-budget, which automatically reduces the spending share of other sectors, such as agriculture.

162. The increase from 2001 to 2002 has a technical explanation: as the DNCP improved on capturing spending data on externally funded investment expenditure, it has started to capture agriculture, the most visible and most aligned donor contribution, which explains the increase from 2001 to 2002. The subsequent decline of agriculture as of total spending reflects improved recording and attribution to sectors of projects in other sectors, that leads, technically, to a decline of agriculture spending in total institutional spending. But there also was a decline of the share of institutional spending, which reflects the normalisation of spending in agriculture after the peak of 2002, when the influx of aid to repair the damage left by the floods of 2000 peaked. Thus, it would appear that the share of agriculture spending in total government spending in 2006 and 2007 has returned to normal, to about the same level as 2003.

Figure 33: Public spending on broad agriculture as percent of total government expenditure, 2001–07



Source: AgPER Team, based essentially on data from CGE and additions (see Annex II Table 4).

Table 8: Public spending in agriculture relative to total government budgets

										million MT
		2001	2002	2003	2004	2005	2006	2007	2008b	2009b
(1)	Agriculture spending excl. OIIL	504	1,655	1,470	2,040	2,795	2,679	2,773	4,434	5,195
(2)	Agriculture spending incl. OIIL	504	1,655	1,470	2,040	2,795	2,679	3,281	4,945	5,728
(3)	Total expenditure	24,289	29,124	28,294	31,630	40,719	48,274	60,293	87,098	102,705
(4)	Institutional expenditure	11,600	17,487	21,004	25,030	31,812	38,904	49,288	73,038	88,080
	Agriculture excl. OIIL as of									
	Total expenditure	2.1%	5.7%	5.2%	6.5%	6.9%	5.6%	4.6%	5.1%	5.1%
	Institutional expenditure	4.3%	9.5%	7.0%	8.2%	8.8%	6.9%	5.6%	6.1%	5.9%
	Agriculture incl. OIIL as of									
	Total expenditure	2.1%	5.7%	5.2%	6.5%	6.9%	5.6%	5.4%	5.7%	5.6%
	Institutional expenditure	4.3%	9.5%	7.0%	8.2%	8.8%	6.9%	6.7%	6.8%	6.5%

Source: CGE and additions (see Annex Table 4), OE 2008 and 2009.

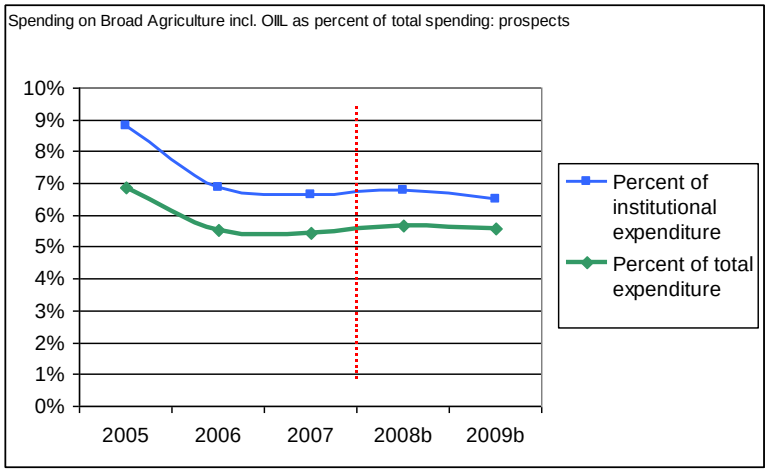
Note: Actual expenditure to 2007, and budgeted expenditure for 2008 and 2009.

163. As mentioned in an earlier chapter, the GoM adopted a PAPA in 2008, designed to boost the production and availability of foods crops in a short period (three years). The budget 2008 was not influenced by the strategy, but the 2009 budget and the medium-term expenditure framework (MTEF) 2009–11 definitely have been. However, looking more closely at the period 2006–09, it becomes apparent that this did not lead to a boost of the share of the budget allocated to public agricultural services (Figure 34).[21] The series for

[21] Our conclusion that the share of agriculture in total expenditure does remain essentially constant contrasts with a table shown in the budget statement (Fundamentação). It says that the share for agriculture and rural development will increase from 3.9 percent in 2008 to 7.3 percent in 2009. We had the opportunity to look at the data and aggregation methods underlying this table. For 2009, the MF has added up budget allocations for the MINAG with all its subordinated and supervised institutes, at the central and provincial levels; the full budget of the Zambezi Valley Coordination Office; the full allocation to the MPD; and all allocations to districts except those for the services responsible for health and education. For 2008, the allocation to districts was not included, and the MPD came in only with the projects under the DNPDR. Contrary to our initial suspicion, the cost of the silos that entered into the budget of the MIC in 2009 were

"spending on agriculture" continues to include 50 percent of the OIIL to the extent that it is meant for food production and employment creation. The investment allocation to districts for public infrastructure is not included.

Figure 34: Spending on broad agriculture including OIIL as percent of total spending: Prospects, 2005–09



Source: AgPER Team, based on data presented in Table 8 (CGE up to 2007, budget for 2008 and 2009).

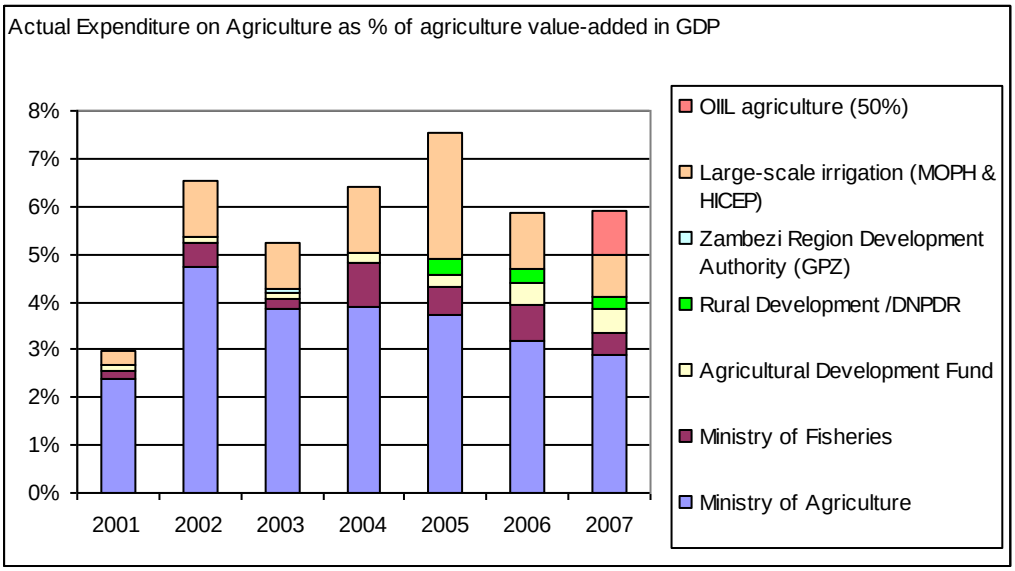
164. This conclusion should, however, be accompanied by a word of caution. During 2009, additional external financing for the PAPA has appeared. The budget allocation from internal resources to the MINAG has increased significantly. Yet, partly due to our assumptions (stability of spending of on large-scale irrigation, projects under the auspices of the DNPDR), the careful projection of spending against own or earmarked revenues (Incajú and FDA) and a conservative estimate of spending in agriculture against external funds may have led to a rather conservative estimate of spending in the 2009 budget.

4.2.3 Other approaches to assess the level of agriculture spending

165. Another useful way to assess the level of agriculture spending is by relating it to agriculture's contribution to GDP and calculating spending per head or per farm, and comparing it to the level of other countries. The different subsectors' spending relative to agriculture's contribution to GDP is shown in Figure 35.

not taken into account. The FDA spending is not reflected in the numbers underlying the table in the *Fundamentação*. Particularly the inclusion of the allocation to districts in 2009 and its omission in 2008 explain the alleged increase.

Figure 35: Agriculture spending as percent of agriculture's contribution to GDP, 2001–07



Source: AgPER Team, based on data from CGE and additional data on actual spending (see Annex II Table 4); INE for GDP (see Annex II Table 1).

166. Spending by the MINAG (with all autonomous institutes, but without the FDA), DNPDR, the MP (including the Fisheries Development Fund), the GPZ, and the FDA relative to agriculture GDP declined gradually from 2002 to 2007, from 5.4 percent to 4.1 percent over five years. There have been significant shifts within this group, though, with the development funds taking a growing share.[22]

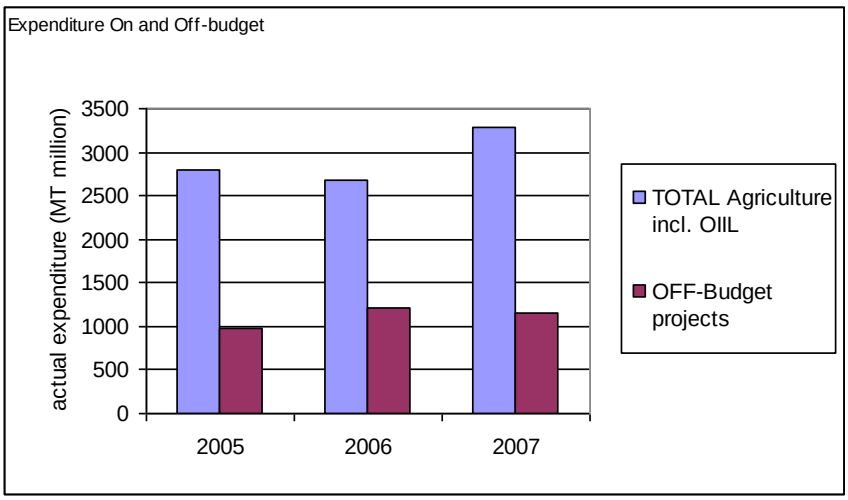
167. The inclusion of the large-scale irrigation schemes and, for 2007, the district development fund ("seven million") makes a distinct difference. With these, public expenditure has averaged 6.2 percent for the period 2002 to 2007, and 5.9 percent in 2007.

168. These figures do not include off-budget spending yet. Figure 36 provides an impression of the size of off-budget spending (see Annex 2 Table 17 for details). Over the past three years, one would have to add an additional MT 1,000 million to on-budget agriculture spending in order to quantify total spending.

169. Between 53 percent (2007) and 69 percent (2005) of the off-budget spending refers to agriculture-related projects financed by USAID. The amount includes food aid under the PL480 scheme and support via NGOs. Many of the other projects are quite small or cross-sectoral, which explains in part why they were off-budget.

[22] The spending by the Fisheries Development Fund is included in the figure for the MP. Because almost all investment expenditure on fisheries is channeled through the Fund, it represents a large portion of overall public spending in the sector.

Figure 36: Value of identified off-budget projects in agriculture and fisheries, 2005–07



Source: AgPER Team, see Annex II Tables 4 (recorded data) and 17 (ODAMOZ records not included in the budget and financial reports).

170. Adding the approximately 1 billion MT of off-budget spending, public spending in 2007 would increase from MT 3,281 million to MT 4,281 million, which represents 7.7 percent of the combined GDP contribution of agriculture and fishing of MT 55,693 million in 2007.[23]

171. Considering the fact that a significant part of the contribution of agriculture to GDP relates to sugar, to which the MINAG does not contribute, the actual ratio of agriculture spending over agriculture GDP is even higher.

172. Table 9 makes an international comparison of spending relative to the contribution of agriculture to GDP. There are two references for Mozambique: one with the data recorded, in one way or another, in financial reports; and the other including the (conservatively) estimated volume of spending that is entirely off-budget. We compare the reasonable estimate for 2007 with the last available year of other countries in the region, thus disregarding the possibility that the other countries in the region may have increased their spending on agriculture since 2004.

[23] Agriculture contributes MT 52,637 million, fishing only MT 3,056 million.

Table 9: Comparison of public spending on agriculture relative to agriculture's contribution to GDP

	Public spending in agriculture as percent of agriculture GDP
Mozambique (2007)	
incl. OIIL	5.9%
without OIIL	5.0%
incl. OIIL, including conservatively estimated off-budget expenditure	7.7%
African countries (2004)	
Côte d'Ivoire	3.7%
Kenya	3.6%
Malawi	5.9%
Zambia	4.1%
Cameroon	1.4%
Ethiopia	5.2%
Mali	9.0%
Tanzania	0.5%
Uganda	3.5%
Sub-Saharan Africa	4.6%

Source: FAO database; authors' calculation.

173. It becomes clear that, in spite of Mozambique allocating a share that is below the 10 percent target, agriculture spending relative to agriculture's contribution to GDP is very high compared to other African country, with the exception of Mali. Note again that the ratio of public spending to agriculture GDP that benefits from public services is likely to be significantly higher than shown in the Table 9 because the GDP contribution includes sugar production, to which MINAG does not supply services.

174. Another approach for making international comparisons consists in looking at public spending per capita of rural population. Rural population in Mozambique was approximately 14 million in 2007. On the basis of public on- and off-budget spending in 2007 amounting to MT 4,277 million, annual spending per rural capita amounts to MT 300, or US$12. Assuming an average family size of five, public spending in agriculture amounts to some MT 1,500 per rural family per year.

175. Comparative data, with the usual statistical errors (concepts may be different, it is unclear to what extent off-budget spending was taken into account) can be calculated from the annex tables of the *2008 World Development Report*. Unfortunately, the required data for rural population and spending in agriculture are available only for a limited number of countries. Table 10 shows the result.

Table 10: Public agriculture spending per rural capita: international comparison

Country	Rural pop. [million]	Spending [international $ million, 2004]	Spending per capita [$]
Burkina Faso	6.6	294	44.5
Ethiopia	58.9	930	15.8
Ghana	11.5	127	11.0
Kenya	26.6	396	14.9
Uganda	24.4	459	18.8
Zambia	7.5	66	8.8
Mozambique (2007)	**14.0**	**171**	**12.2**

Source: Mozambique: Authors' calculation; other countries: World Development Report 2008, statistical annex tables. Exchange rate used for Mozambique: 25 MT/US$1.

Note: Numbers are not fully comparable. The number for Mozambique is expressed in current US$, while the reference for other countries is in "International Dollar", based on purchasing power parities. We could not find the rate at which to convert current 2007 US$ to 2004 International Dollar.

176. The conclusion is that spending per rural capita in Mozambique is fairly similar to that of other countries, although much less than in Burkina Faso.

4.2.4 Should public spending in agriculture be increased?

177. If the NEPAD target to spend 10 percent of budget resources on agriculture were taken by the letter, Mozambique should double its budget allocations in order to increase the share from currently 5.5 percent to 10 percent. At the same time, the ratio of public expenditure to agriculture GDP is high compared to neigbouring countries, and the spending per capita of rural population is reasonably in line with countries in similar situations.

178. Increasing spending on research and on extension (to disseminate research results) by itself will not lead to growth of rural incomes or even to growth of production if the markets cannot absorb additional production or if the production cannot even get to the markets. It is also evident that the quality of public spending in agriculture matters more than the absolute amounts spent.

179. What are the implications?

a) The quality (efficiency and efficacy) of spending needs to be looked at carefully.

b) It is necessary to examine carefully whether there would be local demand for additional production and what needs to be done in order to ensure that additional production can actually reach markets and consumers.

c) Coverage by extension services is low. Its expansion, however, would only be recommendable if and when the extension services have new and economically viable messages to take to the farmers, if market opportunities exist in addition to potentials to increase production. The criteria for expanding extension services should be the marginal additional income that new technologies can bring to the farmers rather than additional production per se that might take place with or without extension.

180. The analysis so far does not answer the important question whether roads, the marketing chain, and processing plants need to be developed before technological advances in agriculture can be beneficial. Therefore, there may be (and only *may* be) an argument for stepping up public spending on roads and financing of rural trade rather than on agricultural services in the definition used in this study (which excludes activities designed to improve downstream economic sectors).

181. The following sections look into some of the issues related to the quality of expenditure and potential to absorb additional spending on agriculture in the restricted NEPAD definition in a beneficial and effective way.

4.3 Translating priorities into spending plans

182. To identify key areas that are underfunded and other areas where savings could be made without compromising overall effectiveness should be one of the prime functions of a sector-focused PER. Unfortunately, as shown in Chapter 3, expenditure data cannot be sufficiently broken down by subfunctions. Since it is not clear how much was spent on veterinary services and animal husbandry, for instance, or on extension services, an analysis of the effectiveness of spending cannot be carried out.

183. This immediately raises the following question: How then can the MINAG, with its subordinate and supervised institutions and provincial directorates, ensure an adequate match between expenditure patterns and objectives, priorities and specific target? In view of rapidly changing priorities, another concern is whether budget allocations can follow quickly to reflect the new priorities.

184. In this section, we analyse how mechanisms of planning, budgeting, and expenditure control can be improved so the players from within the ministry can improve the focus of spending to priorities.

185. One basic assumption underlying the analysis and proposals is that a budgeting system *must* provide sufficient room for arbitrage between interests and priorities and be driven by a focus on expected results. **Translating priorities into spending plans necessarily implies that priorities need to be operationalised, costed, and then reconsidered in view of costs and expected impact.** Therefore, establishing spending plans is not merely a technical exercise, but also the occasion when priorities are reconsidered in view of their costs, and negotiated.

186. Obviously, sufficient information is required so this process can be guided by facts and clearly formulated assumptions. The budgeting system must ensure that there are occasions when available facts and explicit assumptions can be used and defined.

4.3.1 Assessment of currently used mechanisms

187. The currently used instruments of financial planning, budgeting, and expenditure control were conceived under a context that no longer exists. The PAAOs were designed to ensure that activities of the MINAG and its institutes and provincial directorates comply with the basic principles that were agreed on with donors in 1998, and that the ministry

gives due attention to core functions and avoids interventions that should be left to the private sector. In such a reform period, it made sense to opt for what basically is a zero-budgeting approach where every activity has to be costed after it has been found necessary.

188. Arco-Iris was designed to control the various bank accounts in a period when there was no single treasury account, a partly manual and single-entry public accounting system, and parallel financial flow channels for ProAgri funds. In this situation, Arco-Iris was set up so that expenditure against the ProAgri common fund can be fully audited against accounting records.

189. The MINAG-specific systems were designed in a period when almost all donor support was following the project modality, which ProAgri attempted to turn into a programmatic approach. Funding from general treasury resources to agriculture was small in relation to donor funds earmarked to agriculture. This is changing: donors are now providing large amounts of GBS, and external funding is losing weight in relation to the growing internal revenues. As a consequence, the task is changing, shifting from the need to decide and justify how funds provided by donors to the MINAG are used, to convincing the MPD about the relevance and validity of the strategic approach and positive effects of the activities undertaken by the agriculture administration.

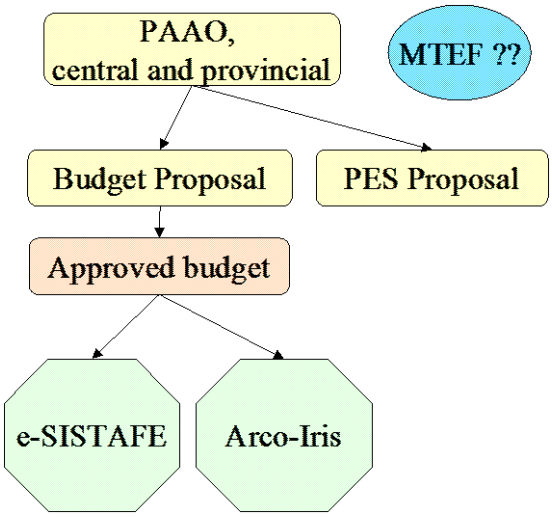
190. Therefore, it is opportune to reexamine the approach and analyse whether it is still useful in a situation where the role of the public services in agriculture is more (although not entirely) consensual, where the efforts to reform the general public financial management system show effects, and where ProAgri funds are fully on-budget and use the same channels as ordinary treasury funds do.[24]

191. The current financial planning and execution system (Figure 37) has a number of systemic weaknesses in today's context:

a) The national MTEF exercise, for which MINAG is called to submit proposals for its medium-term expenditure plans and strategies, is largely disconnected from the remainder of the process. This is because the MTEF is a relatively new instrument in Mozambique. It did not exist when the original financial planning and execution system was set up. The disconnect between the MINAG system and the MTEF is serious because the MTEF process would be the most appropriate place to address regional imbalances.

[24] The following analysis is based on Annex I on planning and budgeting in MINAG, and some additional information obtained since this annex was prepared.

Figure 37: Current financial planning system



Source: AgPER Team.

b) The activity-based planning instrument, the PAAO, and its support tools (the SISPLATA programme) serve to prepare the proposal of MINAG, the directorates, and institutes to the ministries responsible for preparing the OE and the national Economic and Social Plan (Plano Económico e Social; PES) (MF and MPD).[25] After than, the PAAO is not used systematically as a reference any more, neither for expenditure control nor for monitoring of outputs.[26]

The main reasons are these:

- The time when it is prepared (March until June) is too far away from the execution period (January through December of the following year) to allow for incorporation of evaluations of the current agricultural season. Therefore, there is a strongly felt need to adjust the activities even before the implementation period starts.
- Activity planning is initially done with a focus on needs. Thus, the initial volume of funds that the different units of the ministry claim are necessary exceeds available finance. Several stages of adjustment take place in order to make the final PAAO compatible with the budget proposal, but the PAAO is so detailed that fully adjusting it would be quite cumbersome. Further adjustments would be required when the final OE has been finalised and presented to the National Assembly. These, in particular, are often not done.[27]
- The scope of the PAAO remains partial because it covers only some of the recurrent expenditure, does not consider or plan expenditure against own

[25] The PES is submitted to the National Assembly together with the annual budget proposal. It is often said to be "the other side of the coin". It describes the basis for the assumptions made in the budget and the results that spending in the year is expected to bring about.

[26] There are said to be exceptions as some provinces actually adjust the PAAO to the approved budget and do use it to some extent for monitoring purposes.

[27] In 2008, for the first time, an effort was made to incorporate the approved budget into the PAAOs.

revenues, and because projects that are controlled by the provider of the funds (most traditional projects, but also activities financed by the FDA) are not within the scope of the PAAO, since it was designed to provide a basis for the allocation of resources of the common fund. When it comes to implementation, these other activities are and should be considered, which then leads to a deviation of what was planned and what is actually done.

Thus, PAAOs tend to become irrelevant when the budget proposals have been submitted. It is even questionable whether the PAAO is a useful step for preparing the budget proposal to the MPD and MF: these never see the detailed plans (also because they are too detailed for this stage of budget preparation at the MPD/MF level), provincial allocations for the recurrent budget are not influenced by the PAAO exercise (because they are essentially fixed at the MTEF stage), and the details below categories like "goods" or "services," while being requested, no longer determine the budget allocations to these subitems when the approved budget is loaded into the execution modules of e-SISTAFE.[28]

c) The planned pattern of expenditure by components and subcomponents has almost no signifcance for expenditure control.

After the approved budget is known, it is loaded into Arco-Iris as a planned expenditure and broken down by the component, subcomponent, and activity categories. But Arco-Iris is not an expenditure control system. With e-SISTAFE, the authorisation of expenditure and control against allocations is done at the broad level of the OE first; expenditure is recorded in Arco-Iris only afterwards. Even reports produced by Arco-Iris are not very instructive because accounting staff does not have to select a component and subcomponent when booking an expenditure. Therefore, large amounts are recorded as general expenses (*despesa comum*).

d) Arco-Iris used to be an electronic front-end to standalone public accounting systems. It produced the tables that MINAG had to submit to the accounting directorate and departments at central and provincial levels, and was felt to be useful. With the advent of e-SISTAFE, Arco-Iris has become a fully parallel system. Reconciliation between Arco-Iris and the public accounting system is a permanent and growing challenge.

192. The whole process leaves space to discuss details, but provides too little opportunities to consider strategic options taking possible benefits *and costs* into account. It involves a time-consuming process for planning details that are then overturned when it comes to actual implementation of activities and execution of budgets. The reporting on expenditure does not really provide a basis for an assessment of its effectiveness. There are also indications that planned core activities, like inspections of seed multiplication sites or

[28] Only broad categories like "goods and services" or "personnel" are binding and require authorisation of the MF when a sector wants to redistribute from one broad category to another. In the case of projects, the freedom of sectors to redistribute across type of expenditure categories is even greater.

vaccinations, were not carried out because the funds were used for some other perceived priority actions.[29]

193. In spite of the lack of focus on strategies, the PAAO exercise has two merits. First, it has an educational value in that it stresses the need to consider costs together with targets. Second, because the PAAOs only deal with expenditure on core functions, they may be useful to protect budget allocations to these.

4.3.2 New roles for the MTEF and PAAO

194. Although the concrete solution requires a more detailed study to bring clarity about the practical implications, the AgPER team would like to suggest the following guidance for adjusting the budgeting and expenditure control system to the changed environment, to allow for better focus and more open choice making and priority setting. To implement the adjustments, close collaboration with the MF, MPD, and with the Technical Unit for Public Finance Management Reform (Unidade Técnica para a Reforma da Administração Financeira do Estado; UTRAFE), responsible for development of the e-SISTAFE system, is required.

195. The suggestion attempts to resolve the problems described above and achieve the following results:

- strengthen the strategic focus of budgeting,
- provide space for weighing *and negotiating* alternatives at different stages of the process,
- introduce expenditure control by broad areas of interventions (preferably programmes, which will be similar to the existing components and to subfunctions in many cases) in order to ensure the relevance of planning while leaving space for managerial decisions, and
- turn activity planning into an operational instrument that can guide the planning of detailed activities under a firm expenditure ceiling.

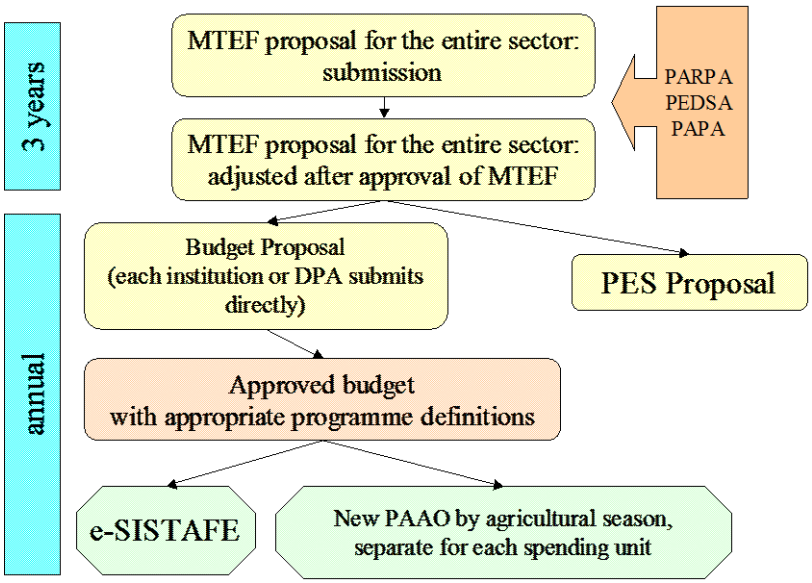
196. The proposal aims at taking financial planning and management procedures further by adapting the ideas that were underlying the MINAG-specific instruments to the new environment and by improving the value added by activity planning, at the right stage of the budget cycle. Our proposal consists of the following elements, illustrated in Figure 38:

a) MINAG and its subordinate institutions and provincial directorates prepare one *single and consolidated* proposal for the national MTEF exercise (see Box 4 and also Annex I for additional details), which should also include the research institute (IIAM) and the FDA.

[29] The revised Performance Assessment Report of MINAG for the year 2006 mentions that in several cases, core activities that were included in the PAAO had not been carried out because funds were not available. This was, generally, not a problem of funds not having been transferred to provinces and districts.

This submission to the MTEF needs to be prepared in a not too detailed manner, while strategic options are made clearly visible. It has to be negotiated within the MINAG and the provinces and institutes.

Figure 38: Proposed scheme for expenditure planning and control



Source: AgPER Team.

Box 4: The national MTEF

The national MTEF process takes place between November and March. The MTEF (referred to as CFMP in Mozambique) defines the budget ceilings for the coming budget preparation round (starting in June), by spending unit, and provides projections of budget allocations for another two years. It is approved by the Council of Ministers.

In principle, the CFMP should allocate funds in line with defined policy objectives and quantified sector outputs necessary to reach the objectives. This approach would allow decisionmakers to weigh priorities in view of their costs. At present, though, the relationship between desirable outputs and financial projections is still weak. As a consequence, it does not yet fully serve to support a prioritisation process at political level. It is not yet negotiated with sectors and at ministerial level. But it is moving into this direction.

In spite of the shortcomings, the CFMP becomes increasingly important for the attribution of ceilings for its first year, Year 1.

b) In order to prepare the MTEF proposal, MINAG would revive the exercise, initiated in 2006 and never really continued, to prepare a medium-term financial plan.[30] This plan should be prepared under a realistic financial ceiling and include spending against own revenues. It needs to be negotiated within MINAG; with provinces; and with the FDA, IIAM, and other institutes.

[30] There has been considerable confusion about the word MTEF, caused by documents of the SPA (Strategic Partnership with Africa) donor group that used this term also in the context of a single sector. In this document, MTEF always refers to a national MTEF. At sector level, we use the term medium-term financial plan.

Regional disparities are best addressed in this spending plan. It must especially state to what extent additional personnel for each component is required in each province, based on the specific conditions and requirements of the province.

The priorities set out in strategic documents, such as the PARPA, the forthcoming PEDSA and the PAPA serve as a reference at this stage. It would be of advantage if the PEDSA would be formulated and structured in such a way that it can be translated into the financial dimension.

c) It is proposed to continue with and further refine the current practice of making a distinction between core functions and development projects. The distinction allows to evaluate the level of funding required and reserved for the core functions and to avoid crowding out of core functions by ad hoc development projects.

All expenditure that refers to subsidising or distributing materials to farmers should be categorised as development project expenditure, mainly because this expenditure should remain a special, time-bound action with a clearly defined purpose.

This does not imply that the split of the budget between core functions and development projects should be static, but it does mean that an analysis of the finance required for core functions must be analysed in a different context, through regular spending reviews, for instance.

d) The MTEF process is the correct moment for ministries to claim additional funds. Of course, while some of the requests may be satisfied by the coordinating ministries, many are not. Thus, the MTEF proposal of MINAG may not be fully reflected in the allocation of ceilings for the round for annual budget preparation when they are announced at the end of May. Therefore, it often is necessary to adjust the MTEF proposal of MINAG to become a sectoral spending plan that is compatible with the national MTEF.

e) After the MTEF is approved, MINAG is left with a margin of maneouvre as far as the allocoation of investment funds stemming from the ProAgri common fund to provinces and, to some extent, MINAG development programmes are concerned. This margin could be used in order to safeguard regional balance and protect core functions.

MINAG may choose to work with provinces and the institutes in order to ensure that the programmatic emphasis of the MTEF is reflected in the budget proposals that, in the end, each institute and each province independently submits to the MF.

A workshop may be an appropriate instrument to ensure focus and consistency. While some adjustments in the programmatic structure can be made at this stage, there should not be any further negotiation about the allocation of ceilings to organisations.

f) Work is ongoing to elaborate a programmatic structure in e-SISTAFE so that it can replace Arco-Iris. This is an important aspect because priorities, defined by allocations to a combination of institutions and programmes and subprogrammes, need to be maintained and enforced in the course of budget execution. MINAG will need to define internally, although in coordination with the MF (UTRAFE), which

categories it considers mandatory and which further programmatic details are desirable to record in the accounting process.[31]

There is also the need to define and specify the internal processes by which redistributions across subprogrammes are authorised within each of the spending units.

g) After the budget is approved, its execution needs to be managed. A more detailed expenditure planning exercise is required in order to prevent a first-come-first-serve budget execution process and to ensure that sufficient amounts are reserved for key activities that need to take place at defined moments in the year. The detailed PAAOs are an appropriate instrument if they are introduced at this stage and if they serve to define specific activities under a firm financial ceiling.

This proposal changes the character of the PAAOs substantially. Rather than compiling needs, they would reflect negotiated plans of the spending units within the MINAG system about how to use the approved budget. If the activity-based PAAO specifies outputs of each activity, it can be a useful basis for monitoring not only whether activities have not been overspending, but also whether all planned activities have been carried out. Consultation with clients at grassroot and district level becomes particularly meaningful if it is guided by the question of how to use a limited amount of funds, rather than compiling a list of what would be necessary which cannot be satisfied in the end.

Under the current setting, MINAG faces the challenge posed by the nonalignment between the budget and the agricultural year, which means that activities have to be planned with a relatively long time horizon. Under our proposal, the PAAO would be prepared in November/December (when the full budget proposal is known although not yet approved by the National Assembly) for the coming year, which already reduces the time horizon.

It is also possible to prepare the PAAOs for the agricultural year, covering the period from July to June. In that case, the PAAO would have two columns: one for the current fiscal year (until December), the other for the first half of the following year, for which the budget is being prepared at the time the PAAO is elaborated (May/June).

197. It was said earlier that a budgeting exercise needs to provide space for arbitration between priorities and a decision-making process that is based on facts (ideally) or explicit assumptions (often inevitable). Our proposal gives room for this at these moments:

a) at preparation of the MTEF submission and the more detailed internal medium-term financial plan, on the important strategic issues;

[31] Expenditure control is achieved by aggregate allocations for, say, crop research. Within this category, it may be useful to define more details in e-SISTAFE.

b) in the phase of attribution of ProAgri common fund resources to institutions and spending units (and, ideally, to programmes) at the very beginning of the annual budget preparation round; and

c) within each spending unit, at the moment of preparation of the PAAO for each agricultural season.

4.3.3 Defining suitable programmes

198. The definition of programmes is a key element in our proposal and will structure all documents, from the MTEF proposal to the budget and on to the activity plans. However, activities do not need to appear in the programmatic structure, nor do financial reports that will be produced with the help of e-SISTAFE need to show activities. Activities, as long as they belong to a programme or subprogramme that is sufficiently specific, are an operational category that is normally below the level of capture of accounting systems.

199. The following points can guide the process of defining adequate programmes and subprogrammes.

200. Programmes should be defined according to the **purpose** of the expenditure, i.e., the category of services that the expenditure will produce. It is proposed to avoid the term "objective" because it can be very misleading.[32] Programmes should

- refer to a bundle of similar services, and
- be defined in such a way that a programme manager can be named. (One manager can manage several programmes.)

201. If several institutional layers (like central and provinces) contribute to a service, the programme can extend over several institutions. The part that is entrusted to a manager is the combination between institution and programme. For example, if "extension services" is the programme and DPA Niassa the institution, there should be one person responsible for managing extension services in Niassa. The possibility of attributing responsibility for the management of a programme budget to a person or unit should be one of the important guiding principles—definitions should aim for practicability, and some loss of logic can be tolerated.

202. Programmes should not be conceived merely as an envelope for similar projects. As mentioned elsewhere in this report, "projects," particularly in agriculture, can contain routine expenditure for routine services as well as time-bound expenditure that aim for change ("improve" or "expand" are the keywords). Programmes relating to core functions should be of a permanent nature, pointing to a group of services to be provided. Within these (and defined as subprogrammes or group of projects) can be items that are change oriented and that will end when the change has been accomplished. Special and time-

[32] "Objective" may be interpreted as the target for one (of several) indicators of an intermediate or final output, or as the nonquantified description of a higher level of the cause-effects chain, and then refer to a final output or outcome. Defining programmes on the basis of "objectives" therefore often leads to programme definitions that describe a desired impact or expected change that is expected to be prompted by the public service to be provided, rather than a group of activities that can be costed.

bound actions (in the MINAG context referred to as MINAG Development Programmes) can appear either as subprogrammes to the core functions, or at the same level.

203. Programmes are hierarchical in the sequence programme > subprogramme > activities. In practice, expenditure control by the MF will stop at the level of programme. The distribution of funds by subprogramme can be modified within the institution, and activities do not normally appear in the budget and expenditure control. Therefore, all items that are of political significance and where choice making is strategic rather than operational should appear at the programme level. For this, the programme structure should be broad rather than deep.

204. In this sense, "agrarian services" is a category that is too wide to be useful as a programme. Rather, extension, production support, veterinary services, and irrigation should appear at the programme rather than subprogramme level.

205. The definition of programmes at the first level is quite similar to functional and organic classification. This is not a problem, but rather an advantage: programmes can generally be attributed easily to a unit within the institution, whose responsibility is often very similar to a function according to the international COFOG. But where one organisational unit is responsible for delivering quite different services, the programme classification should be more detailed than the organic or functional classification.

206. Starting seriously in the 2009 budget, some form of programme classification has been introduced (see Box 4 at the end of this section); programmes also play a role in the elaboration of the MTEF. However, the programmes that have been defined so far are axes of action that are directly derived from and related to the government programme. They are too broad, and not suitable for replacing the component and subcomponent structure of Arco-Iris.

207. Fortunately, it still is possible to define more meaningful programmes in the sense of direct cost of a basket of similar services in agriculture. e-SISTAFE has three programmatic fields of 22 characters each, long enough to be subdivided. The first level is reserved for macroprogrammes. Only this field is being used so far. The project code is part of this field. The second field is reserved for a sector-programmatic classifier, to be used for structuring the expenditure of a sector according to its own planning logic and organisational structure. The sector-programmatic field would be the appropriate field for coding the programme hierarchy that we propose.[33] The two fields—macroprogramme and sector-programme—are theoretically independent. It would be useful, however, to design programmes in the sector in such a way that they can be linked upward to the macroprogrammatic classification up to, but not including, the project code.

208. While the databank system of e-SISTAFE is already prepared to receive the sector-programmatic classification, there is need to programme input masks and reports that are tailor-made for the proposed programmatic sector structure.

[33] The third field, called sectional classifier, is meant for project-specific codes in cases where a donor demands the presentation of accounts in a classification scheme not otherwise available by applying the routinely used classifiers and avoid the need for a parallel accounting system. This field should be left for the intended purpose.

4.3.4 The factual and strategic basis for the medium-term spending plan

209. Pushing the PAAO to the implementation stage leaves a question: On which basis can and should the medium-term spending plan and the MTEF proposal submitted to the coordinating ministries (planning and finance) be prepared. One solution would be to reintroduce some elements of incremental budgeting, but only in combination with conscientious adjustments. After the functions of the MINAG have been redefined to fit into a market-oriented economy, the past can again guide budget allocations for the next years.

210. Having said this, though, it is important to add the following:

a) Past spending should be analysed against the results achieved and results not achieved, and funding gaps and imbalances identified. In particular, a comparison between challenges and opportunities for each province and the historic regional distribution of funds should lead to adjustments.

b) Incremental-with-adjustment budgeting is useful mainly for the core functions. The time-bound development programmes need to be budgeted on the basis of unit costs.

c) Development programme budgets must be allocated to provinces for the first year (Year 1) while the attribution to provinces is optional for Years 2 and 3.

d) It would be useful to distinguish between funds earmarked for central-level activities and funds for national activities that will be decentralised for implementation in annual budgets, but not (yet) in the medium-term spending plan.

4.3.5 Phasing of suggested changes

211. The most important unknown element of the proposed changes is the perspective of developing the sector-programmatic classification in e-SISTAFE and of the necessary input masks, redistribution rules, and, most importantly, reports. Some other sectors, like health and education, are currently thinking about setting up their own parallel accounting systems in order to create many of the functionalities that Arco-Iris already has. Therefore, in-depth discussions with UTRAFE, the unit responsible for system development of e-SISTAFE, are required. But *before* approaching UTRAFE seriously, MINAG's DE and DAF should agree on a suitable programmatic structure.

212. Once the programmatic structure to be used in accounting is agreed, MINAG could proceed to do two things simultaneously: revive the medium-term spending plans as strategic instrument for planning expenditure in the entire agriculture sector (i.e., including the institutes and the FDA) and developing the PAAOs into an activity planning *and monitoring* instrument that is compatible with although more detailed than the accounting system classification. Whenever these two elements are agreed and developed, they can be used. There is no need to wait for the desired functionalities of e-SISTAFE. However, it should be avoided to have to change the programmatic structure again when e-SISTAFE is ready for it.

4.3.6 The role of districts and provinces

213. The existing financial planning system, centered around the PAAO, has a bottom-up logic. Nevertheless, in practice, needs of districts are not satisfied because of overall budget contraints, and the investment expenditure, allocated to the MINAG each year, shows that the central level has retained a considerable decision margin.

214. When adjusting the financial planning system, the recent development with regard to decentralisation and the role of districts should also be taken into account. How can this be achieved in the context of the procedures that we propose?

215. First, agricultural policy has a national component, which aims mainly at ensuring food security and a certain degree of risk reduction with regard to the ups and downs of world markets. The balance between social expenditures and expenditures for the productive sector should be ensured at the central level. There should be no need to consider trade-offs between social expenditure and expenditure on economic sectors and infrastructure at the provincial level.

216. At the same time, there is need for synchronization and concertation with other sectors that support economic activity in general and the agricultural value chain in particular, especially with the roads sector. This is best achieved when decision and negotiation margins are left to provinces and districts.

217. Managerial responsibility for activities in the agriculture sector will—and should—be gradually deconcentrated to the district level, in line with current decentralisation policy and the pertinent legislation.

218. This then leads to the following guidance:

a) The MTEF proposal and underlying medium-term spending plan, which are based on a programmatic structure, should provide strong guidance for the preparation of all annual budgets at central and provincial levels. The regional distribution of expenditure and the split between the main core functions on the one hand and development projects on the other, should therefore be prepared and negotiated with involvement of provincial agriculture administrations.

b) The provincial proposals for the annual budget would best be prepared with strong involvement of district planning staff, and there should be agreement about the allocation of the funds to each of the districts prior to the submission of the budget proposal.

   Agreement with supporting sectors about important complementarities should be sought at this stage.

c) The PAAOs at provincial level, now conceived as detailed implementing plans, should ideally combine provincial and district activities, which will have to be very complementary. One possibility to achieve this may be to start at district level, with each district indicating the support and respective expenditure that is required from the provincial level for each programmatic area. The provincial PAAO would then be added and should reflect what districts indicated as their needs of support from the provincial level.

219. It is evident that planning and budgeting capacities at district level need to be reinforced over time.

220. Since 2007, districts have been provided with funds for the promotion of private activities for increasing food production and employment creation, known as the "seven million."[34] Essentially, these are short-term investment (not seasonal!) credits for producers, which are attributed through local advisory councils in view of their specific situation and opportunities.

221. The central and provincial agricultural administration has no or little influence on how the "seven million" are allocated, and definitely no say. Nevertheless, there are links between these credits and the role of the district agricultural services, and opportunities that can be exploited:

- When credits are attributed to agriculture, the public extension service might be called on to pay special attention to the technical problems of the recipients of the credit, particularly when the funds received from the district fund allow farmers to apply new technologies (such as new varieties, chemical fertilizer, tractors, or animal traction).
- The district service responsible for agriculture can usefully identify opportunities for farming in the district and communicate these to the advisory council and farmers (through the extension service or other means of communication, whichever is available). In this way, they could provide some guidance to those responsible for allocating credits and ensure that incentives lead to appropriate supply reactions.

222. Different financing conditions for the same target group and same type of activities should be avoided. The danger of conflicting loan conditions arises when an agricultural intensification programme makes provision for distributing inputs and favourable conditions that can be seen as a partial subsidy. The distribution of oxen and implements is an example: free distribution by the agricultural services or by NGOs would undermine the morale to pay back loans that other farmers have received through the district development fund (the "seven million").

Box 4: Programme Budgeting: Current status

The 2009 budget presents recurrent and investment expenditure in a programmatic classification. The programmes are derived from the five-year government programme. For the time being, the programmatic structure is for information only: it plays no direct role in expenditure control. The binding classifications that define a budget cell (with a number) are the spending unit (generally a ministry, provincial directorate, or autonomous institute, with only isolated cases of a further breakdown within a ministry), project code for investment expenditure, and broad type of expenditure (economic classification, grouped to levels like "goods" and "services").

For investment expenditure, projects are the smallest item of the programmatic hierarchy. Since investment expenditure is allocated by project, this implicitly makes the programmatic structure binding, although only to the extent that the project purpose is adequately defined. In particular, large projects continue to be often defined vaguely, and the defining element often is the source of finance.

[34] See Annex 1 for details about the arrangement and the genesis of the scheme.

The programmatic classification of expenditure follows the hierarchy strategic area > strategic subarea > programme. Programmes have a programme code that also identifies to identify the institution. Agriculture expenditure is classified in the following strategic subareas and programmes:

- Food security, with programmes for (i) agricultural production and (ii) natural resource management
- Rural development, with programmes for (i) rural development of the Zambezi Valley and (ii) rural development without further specification
- Public sector reform, with a programme for Institutional Support to the MINAG
- Fisheries, with programmes for small fisheries and for commercial fisheries
- Administration of the state apparatus

All recurrent expenditure for agriculture and fisheries has been subsumed under the last, catch-all category. The institutional development component of agriculture is classified under public sector reform. All MINAG projects are under food security, subdivided into the two programmes. IIAM projects are also under the Agricultural Production programme. The rural development area includes the projects of GPZ (Zambezi Valley) and DNPDR.

Thus, the actual use of programmes is limited to grouping projects with a similar broad purpose for the investment part of the budget, and bundling recurrent expenditure of several institutions into even broader categories.

For the MTEF 2010–12, which is currently under preparation, the programmatic classification is applied only to investment expenditure (projects). The categories in use are these

Institutional administrative support
- Administration of material resources, inventory and financial resources
- Development and training of human resources
- Institutional support to documentation and communication
- General organisation and coordination
- Institutional support for data processing and statistics

Agrarian production
- Animal husbandry
- Rural extension
- Production support
- Irrigation
- Research

Management of natural resources
- Administration of agricultural lands
- Forests and nature and animal reserves

4.4 Private investment in agriculture

4.4.1 The interest in private investment

223. Economic growth is generally associated with investment in the sense that growth cannot take place without adequate levels of net investment. This may not be entirely true for agriculture because production and income growth can be the result of the use of improved seeds and fertiliser, and by simple measures to reduce postharvest losses. Growth may also be prompted by more-efficient marketing channels or the availability of seasonal

loans. Roads play a particularly important role. Improving the roads network requires significant capital expenditure, but this would not be considered as investment in agriculture.

224. There are areas where investment is clearly required if production is expected to increase beyond a certain point. Investment expenditures may be the acquisition of oxen, acquisition of machinery, construction of storage facilities on-farm or along the marketing chain, possibly a transport fleet owned by farmers or associations, or clearing of land. The biggest investment that occurs in agriculture is the construction and rehabilitation of irrigation schemes and other methods for catching and conserving water.

225. Analysing private investment in agriculture can contribute to finding responses for three questions in particular:

a) Is the level of investment in agriculture sufficient for sustained growth of 6 percent per year as stipulated by the CAADP?

b) Has public expenditure on the core functions resulted in attracting private investment? The institutional reforms embarked on with the ProAgri programme had the intention of making agricultural activities attractive to the private sector by letting market forces develop incentives to farmers and by providing a predictable environment and the right public support services to make agriculture in general and private investment in agriculture in particular profitable. Are there indications that this has happened?

c) If the level of capital expenditure in agriculture is low, one would want to know whether this is because of low profitability or whether other impediments result in investment opportunities not being taken up at a sufficient scale. The question is to what extent market-based incentives lead to actual investment, and how impediments can be removed.

226. A background study on private investment trends in the agriculture sector has been prepared, with funding from USAID, in the context of this AgPER.[35]

227. This section summarises the main findings of that study.[36]

4.4.2 Availability of information

228. The study team for the private investment background paper has attempted to assemble information and data on private investment from a variety of possible sources. The team has not had much success, though, as is shown further down. INE, the national statistics institute, does not compile investment broken down by sector, nor does it disginguish public investment from private investment. Investment data are not available from surveys nor from tax returns. Therefore, the study also made an attempt to estimate capital expenditure by looking at approved investment projects (which would include the

[35] USAID: Private Investment in the Agriculture Sector in Mozambique. September 2008. Produced by Nathan Associates Inc.

[36] Some sentences are direct quotes, without being marked as such.

financing of working capital in addition to expenditure on fixed assets) or look at bank loans to agriculture and capital inflows into Mozambique as proxies for capital expenditure.

229. The following data sources were tried:

a) Data on investment by smallholders in land clearance and land improvements, and acquisition of animals and equipment for animal traction could be collected through the annual survey of the MINAG, the TIA. Unfortunately, the TIA questionnaires do not collect information about investment, so that no information is available from this source.

b) The CPI provides fiscal incentives and guarantees for investment projects. It keeps records and produces statistics about approved projects, which are broadly classified by sector. The relevant sector groups for this study are (1) agriculture and agroindustry, including forestry; and (2) aquaculture and fisheries. Different from the focus of this study, the CPI data on agriculture and agroindustry cannot be separated.

   The usefulness of CPI data is quite limited, though, because they relate only to approved projects, with no information available about actual implementation of approved plans. The year under which investments are recorded is the year of the approval, not the year of planned investment. Besides, CPI only comes into play where investment incentives and guarantees are requested, and consequently covers mainly foreign investments. Thus, trends cannot be interpreted.[37]

c) The Central Bank (Banco de Moçambique—BdM) records capital inflows of equity capital and loans and classifies these by (i) agriculture, animal husbandry, forestry, and (ii) fisheries. There may be some underreporting, and the data may include first-level agroprocessing if it is annexed to a farming enterprise. They do not include reinvestment. The recorded level is very low and erratic. For 2007, by far the the highest number in the time series, BdM statistics show somewhat less than US$50 million in total capital inflow for agriculture and fisheries, of which US$28 million was for equity capital.

d) Banking statistics on loans, published by the Bank of Mozambique, include data on commercial bank credit to the economy, with breakdowns by sector, type of loan, and province. The sector categories provide reasonably good detail and even disaggregate for tea, sugar, cashew, sisal, copra, cotton, and other crops, as well as livestock, forestry, and fisheries. On loan use, BdM usefully distinguishes between working capital credit and investment credits.

   Most of the tabulations show credit outstanding at the end of a given time period. The change from one period to the next is therefore a measure of the net flow of lending during the period. Information about gross lending and repayments is, however, not available with meaningful disaggregation.

[37] The data for the two categories show an increase from US$150 million in 2006 to US$600 million in 2007. This increase is due to the approval of the Procana project in Gaza, a planned large irrigated sugar plantation for the production of ethanol.

The data on outstanding loans at the end of each year, though, provides only a limited indication of investment in agriculture because farming enterprises rely mainly on self-finance and retained earnings. Hence, data on bank loans cannot provide a measure of overall investment in agriculture, even among formally registered enterprises.

The authors also point out that some of the loans recorded as going to agriculture may actually have been used for other activities such as transportation, marketing, processing, or trading. This is partly a reflection of the fact that agricultural enterprises are often engaged in a variety of related activities. In addition, the tax code creates a strong incentive for corporate groups to use "creative accounting" to record profitable activities as arising from agriculture.

230. Table 11 shows the statistics that were compiled by the USAID-financed study.

231. Investment credit goes mainly to the subsectors sugar, cotton and, recently, fisheries. Total outstanding investment lending was in the region of MT 1,000 million, or roughly US$38 million. Investment credits for agriculture amounted to just 1.0 percent of agricultural GDP (without fisheries) in 2007, but 13.3 percent for fisheries.

Table 11: Bank credit by sector, 2003-2007 (million meticais)

Economic Activity	Dec-03		Dec-04		Dec-05		Dec-06		Dec-07	
	Investment Credit	Total Credit	Investment Credit	Total Credit	Investment Credit	Total Credit	Investment Credit	Total Credit	Investment Credit	Total Credit
1. AGRICULTURE	**826.3**	**1,610.0**	**694.3**	**1,363.1**	**683.6**	**1,611.1**	**435.3**	**1,470.7**	**451.4**	**1,836.2**
1.1 Tea	-	1.1	-	1.1	-	7.0	-	10.9	-	51.8
1.2 Sugar	253.7	434.0	244.1	394.0	145.4	441.6	69.7	508.8	140.7	507.4
1.3 Cashew	22.5	205.0	3.8	35.9	3.0	79.3	3.5	84.0	19.0	145.6
1.4 Sisal	-	-	-	-	-	-	-	-	-	-
1.5 Copra	29.3	29.3	16.4	22.2	13.5	21.3	2.0	10.3	17.9	92.5
1.6 Cotton	214.2	509.7	257.2	621.5	363.4	713.6	166.5	480.5	135.8	728.6
1.7 Other \a	306.6	430.9	172.7	288.2	158.3	348.3	193.6	376.3	138.0	310.4
2. ANIMAL HUSBANDRY	48.7	54.3	71.2	76.0	92.8	111.9	38.4	41.4	43.7	57.5
3. FORESTRY	4.7	14.3	3.8	31.7	38.3	51.7	39.4	125.9	12.6	54.6
4. FISHING	43.9	264.3	111.3	366.7	353.9	849.9	491.0	901.9	406.5	861.0
5. EXTRACTIVE INDUSTRY	260.5	270.6	260.8	270.0	474.7	625.9	461.2	1,214.0	339.4	1,027.9
6. MANUFACTURING	1,099.6	2,056.3	875.8	1,724.0	716.4	1,799.5	785.2	2,268.5	967.2	2,952.1
6.1 Food, Beverages, Tobacco	514.3	942.0	383.7	713.9	323.9	840.0	320.9	1,153.0	378.1	1,749.6
6.2 Textiles, garments, footware	2.8	87.1	32.9	55.8	33.5	39.3	9.9	24.9	6.4	14.6
6.3 Chemicals	10.1	80.8	3.2	21.3	17.6	76.9	17.0	40.1	26.5	69.7
6.4 Metalurgy	149.0	299.2	148.5	291.6	228.5	389.0	179.9	198.5	115.3	164.7
6.5 Other	423.3	647.3	307.5	641.2	112.9	454.2	257.5	851.8	440.8	953.5
7. ELECTRICITY, GAS, WATER	16.9	28.4	17.3	51.7	46.0	159.0	297.2	361.4	478.0	846.4
8. CONSTRUCTUION AND PUBLIC WORKS	312.5	739.4	125.1	492.6	335.0	922.5	602.8	1,443.9	560.8	1,713.8
9. TOURISM	181.8	494.1	323.6	392.2	590.5	844.5	608.2	929.4	520.9	996.0
10. COMMERCE	600.4	2,083.5	752.4	2,575.1	1,951.2	6,255.5	2,193.0	7,020.0	2,759.2	7,292.9
11. TRANSPORT AND COMMUNICATION	549.8	768.1	566.5	818.0	917.6	1,186.6	1,094.2	1,576.2	2,005.4	3,633.9
12. FINANCE	0.3	212.7	0.3	214.3	87.8	565.3	138.9	295.4	195.4	265.8
13. OTHER	2,842.7	5,068.0	2,738.3	4,666.7	3,248.0	5,505.8	4,121.3	7,974.7	5,002.1	8,297.7
CREDIT TO AGRICULTURE (1-4)	**923.7**	**1,943.0**	**880.6**	**1,837.5**	**1,168.7**	**2,624.6**	**1,004.0**	**2,540.0**	**914.2**	**2,809.3**
CREDIT TO THE ECONOMY	**6,788.2**	**13,664.0**	**6,540.7**	**13,042.0**	**9,536.0**	**20,489.2**	**11,306.2**	**25,623.4**	**13,742.6**	**29,835.7**
SHARE TO AGRICULTURE	**13.6%**	**14.2%**	**13.5%**	**14.1%**	**12.3%**	**12.8%**	**8.9%**	**9.9%**	**6.7%**	**9.4%**

Source: Bank of Mozambique, and author's calculations

\a Row 1.7 adjusted to eliminate minor discrepancy in original source between Row 1 and sum of Rows 1.1 to 1.7.

Source: USAID: Private Investment in the Agriculture Sector in Mozambique. September 2008.

232. Combining data from internal lending (bank statistics, end-of-year stock of investment credit) and external inflows as recorded by the Bank of Mozambique (the exceptionally high figure of US$48.6 million, or around MT 1,170 million), gives a total of MT 2,048 million. This is compared to a combined agriculture and fisheries, GDP contribution in 2007 of MT 55,700 million (in current prices), investment financed by loans or capital inflow is a mere 3.7 percent of GDP, and much less if fisheries is excluded.

233. But the numbers on investment are incomplete. The bulk of investment in agriculture is financed by equity capital or past earnings, mainly from smallholders. And time series about even the data on investment financing are so erratic that no serious analysis is possible.

234. Nevertheless, tracks are left to indicate that investment capital does flow into the sector.

4.4.3 Impediments to investment

235. Based on nonrepresentative interviews, the study on private investment in the agriculture sector also summarises the main constraints that have been cited by interviewees. Lack of credit for agriculture is one of the main points. Agronomic research and information systems would have to provide more information about the transportability of techniques and varieties to similar, yet somewhat different, agricultural zones. Furthermore, the study suggests a look into approaches that would emphasise the role of clusters and value chains in order to attract marketing agents to a region and provide basic agricultural and business services in the vicinity of an agricultural development area.

236. From the interviews, the security of land tenure emerges as an impediment to investment both for small and large farmers. Large agricultural enterprises can eventually obtain a land use title, but the process is slow. Small farmers with traditional land rights have the fear that some local authority might give the land in which they have invested to a development project, thus infringing on their traditional but undocumented land-use rights.

237. Last but not least, labour problems are mentioned. Current labour regulations attach a high cost to adjustments of the labour force if dictated by market conditions, and the recent trend to increase the minimum wage for agricultural labour more than in other sectors, in combination with a slow real revaluation of the MT, result in threats to competitiveness.

4.4.4 Improving data availability

238. A number of recommendations of the study relate to avenues of improving data availability. The most promising ones are as follows:

- CPI should keep statistics about the phasing of planned and approved investment projects, so that series for planned investment by year can be prepared.
- CPI could follow up on the approved projects so that information about planned investment can be compared to actual investment expenditure.

- The annual TIA and the Agriculture and Fisheries Census could contribute information about investment undertaken by small-scale farmers.
- The number of large projects in agriculture is quite limited. The MINAG could, in addition to collecting information about production, add information about capital expenditure undertaken by these large commercial projects.

239. The analysis of investment shows that commercial investment is taking place. However, responsiveness of investors to incentives could be enhanced if the government would provide a better road transport network and, in particular, core agricultural services like disease control and certification.

4.5 The economics and logistics of irrigation

240. Within the context of the collaborative approach to this expenditure review, an in-depth study on irrigation projects was commissioned by the Delegation of the European Community. The study looked at the different stages of building irrigation schemes, visited approximately 30 sites, prepared detailed case study protocols for 23 of them, and came up with a number of observations that can contribute to a more realistic approach to irrigation. The study did not examine the large-scale irrigation scheme of Chókwè, which is intrinsically related to the rehabilitation of the Massingir Dam; both of these are in Gaza province. Nor did the study analyse the large privately financed irrigation schemes of the sugar plantations. Rather, the study focused on small-scale irrigation schemes built or rehabilitated with public funds.

241. The information presented in this section draws mainly on the results of this study, which is shown in full as Volume III of this AgPER report. Some additional information in overall expenditure and the PAPA was added.

4.5.1 Context

242. Irrigation has been high on the agenda of government for many years, and indicators for rehabilitation or construction of small-scale irrigation have repeatedly figured in the performance assessment framework (PAF) matrix used to monitor progress on the joint programme with the 19 donors that provide budget support. The indicator has been missed regularly, although only by about 15 percent on average (Table 12).

Table 12: Targets and achievements in irrigation

New or rehabilitated irrigated areas (ha)	2005	2006	2007	2008	2009	Total
PARPA II target	2,500	3,200	4,000	3,400	3,000	16,100
PAF target	2,900	3,200	4,000	3,400	3,000	16,500
Actual	2,514	2,546	3,520	1,778		10,358
Actual as % of PAF target	87%	80%	88%	52%		

Source: PARPA II, annual PAFs, and joint review reports.

Note: Excluding large-scale irrigation scheme of Chókwè/Massingir, as well as excluding private investment in irrigation (particularly in the sugar sector).

243. In general and agriculture-specific strategies, irrigation tends to be seen as a way to reduce crop failure in areas with unreliable rainfall, and to permit a second crop in others. Consequently, public investment in irrigation takes place mainly in southern Mozambique. The potential that irrigation can allow farmers to have two harvests per year and increase production particularly in areas with sufficient but seasonal rainfall is often overlooked.

244. The last inventory of irrigated land was undertaken in 2002, but not updated systematically. The 2002 inventory reveals that only some 40,000 ha are operational, out of a total of 118,000 ha (Table 13). However, the largest nonutilised areas are in schemes of above 500 ha and schemes in the class of 50–500 ha. For the class of small schemes of up to 50 ha, only 3,113 ha out of 6,339 ha were not operational. This represents half of the area equipped with irrigation, but in absolute terms the area is small. For all irrigation schemes under 500 ha, 18,080 ha were not operational. This corresponds about to the total area that is to be build or rehabilitated according to the PARPA II.

Table 13: Irrigated areas in 2002

	North		Centre		South		Total	
	(ha)	(%)	(ha)	(%)	(ha)	(%)	(ha)	(%)
Area with irrigation infrastructure								
Class A (<50 ha)	592	17	1,428	4	4,369	6	6,389	5
Class B (50-500 ha)	1,760	53	6,653	17	11,234	15	19,647	17
Class C (>500 ha)	1,000	30	30,949	79	60,135	79	92,084	78
Total	**3,352**	**100**	**39,030**	**100**	**75,738**	**100**	**118,120**	**100**
% of national total		**2.8**		**33**		**64.1**		**100**
Operational area								
Class A (<50 ha)	200	30	624	4	2,452	11	3276	8
Class B (50-500 ha)	461	70	1,584	10	2,635	11	4680	12
Class C (>500 ha)	0	0	14,049	86	18,058	78	32107	80
Total	**661**	**100**	**16,257**	**100**	**23,145**	**100**	**40063**	**100**
% of national total		**1.6**		**40.6**		**57.9**		**100**
Percentage operational								
Class A (<50 ha)		34		44		56		51
Class B (50-500 ha)		26		24		23		24
Class C (>500 ha)		0		45		30		35
Total		**20**		**42**		**31**		**34**

Source: Irrigation study (Volume II of this AgPER).

245. All irrigation in Mozambique functions on the basis of surface water; ground water is not used for irrigation.

246. The PAPA of 2008 poses an additional challenge. It mentions the following targets, specifying the exact location (Table 14):

Table 14: Irrigated areas required according to the PAPA (ha)

Season	2008/09	2009/10	2010/11
Rice	10,975	4,680	4,700
Vegetables	9,620	4,440	4,200
Total	20,595	9,120	8,900
of which			
Chókwè			
Rice	6,000	2,000	2,000
Vegetables	6,000	2,000	2,000
Total	12,000	4,000	4,000
Other irrigation schemes			
Rice	4,975	2,680	2,700
Vegetables	3,620	2,440	2,200
Total	8,595	5,120	4,900

Source: GoM: PAPA, 2008, p. 72.

Note from original table: "In the first year, all interventions will take place in areas that are considered operational, where only maintenance work, some repairs and equipment purchases are required. Numbers for the years 2 and 3 refer to new areas that are currently non-operational.

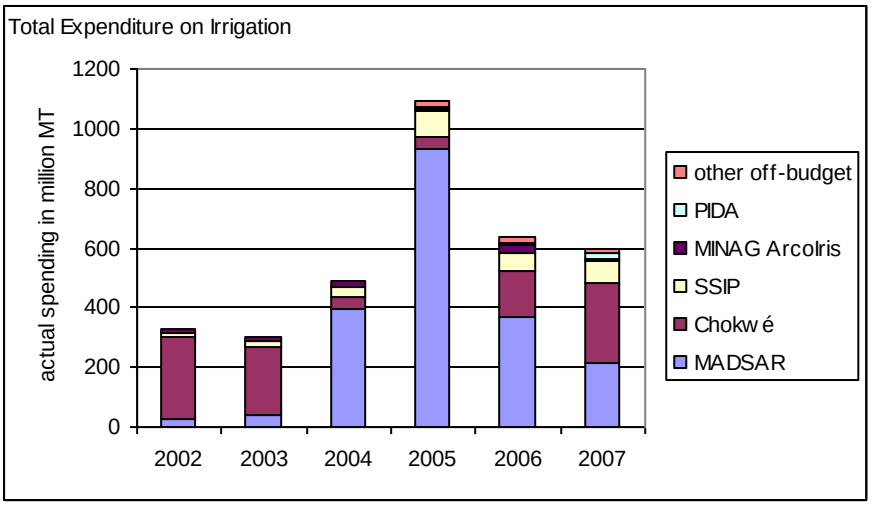
Note 2: It is not clear whether the irrigation areas for rice and vegetables refer to two crops on the same area, or whether they should be added.

4.5.2 Financial volume of public investment in irrigation

247. Very few funds from internal government revenues and ProAgri common fund resources have recently being applied to irrigation. Most small-scale irrigation projects are either funded by specific donor-funded projects (with AfDB and Italy being the most prominent donors), and lately also by way of the "seven million" of the investment funds of districts to support productive activities aimed at food production and employment creation.

248. Irrigation spending is highly concentrated on Chókwè and Massingir (see Figure 39 and Table 15). Nevertheless, some MT 100 million to MT 110 million are spent on other irrigation schemes, not including the irrigation funded from the "seven million."

Figure 39: Total actual expenditure on irrigation, 2002–07



Source: AgPER Team, own calculation; see also Annex II, Table 9.

Notes: MADSAR = Massingir dam and Xai-Xai irrigation scheme. SSIP = Small-Scale Irrigation Project financed by the AfDB. Integrated Program for Agricultural Development (Programa Integrado de Desenvolvimento Agrário; PIDA = irrigation component of the Italy-financed.

Table 15: Public spending on irrigation

(million MT)

	2002	2003	2004	2005	2006	2007
MADSAR	26.5	38.7	396.9	932.8	366.3	214.9
Chókwè	272.6	232.4	38.4	42.4	154.1	267.4
SSIP	15.9	18.6	31.9	80.9	63.3	73.1
MINAG Arcolris	11.7	14.9	19.2	9.0	23.2	6.7
PIDA			3.0	9.8	12.3	21.7
Other off-budget				14.8	16.6	9.5
Total	**326.6**	**304.6**	**489.5**	**1,089.7**	**635.8**	**593.3**
of which non-large-scale	27.5	33.5	54.2	114.5	115.4	111.0

Source: AgPER Team, own calculation; see also Annex II, Table 9.

249. The PAPA estimates the additional budget for irrigation required for meeting the PAPA targets as shown in Table 16.

Table 16: Projected MINAG cost of the PAPA (MT million)

Intervention Area	2008/09	2009/10	2010/11	Total
Research	30.3	95.7	102.7	228.8
Seeds	193.4	256.5	410.5	860.4
Fertilisers	7.1	16.3	34.5	57.9
Plant protection	17.1	17.6	20.2	54.9
Animal traction	54.9	74.8	84.7	214.4
Irrigation	426.2	1,332.2	1,597.7	3,356.1
Extension	237.3	348.9	468.3	1,054.6
Support to aviculture	217.9	14.0	0.0	231.9
Total PAPA proposal for MINAG	1,184.2	2,156.0	2,718.7	6,058.9
Irrigation as % of MINAG total	36.0%	61.8%	58.8%	55.4%
Irrigation in US$ million (25 Mt/$)	17.0	53.3	63.9	134.2
Total PAPA	3,156.7	3,995.2	3,748.3	10,900.2

Source: PAPA, p. 63.

4.5.3 Lessons to be learned

250. The study on irrigation allows us to draw a number of interesting and important conclusions, derived mainly from the case studies.

(a) The cost of setting up an irrigation scheme varies enormously according to the type of technology used and whether it is a new scheme or rehabilitation of an existing scheme. The investment required varies from roughly US$2,000 to US$16,000 per hectare of irrigated land.

(b) Irrigation canals are a main cost driver because they require that compacting equipment is brought to the area, which is generally remote. Thus, the mobilisation cost for equipment is an important cost factor. The alternative of using flexible pipes rather than canals therefore always should be considered as an alternative. A related aspect is that smaller Mozambican companies may be able to build an irrigation scheme based on pipes, but they do not have heavy compacting equipment available. Considering the option of using flexible pipes instead of canals would therefore enhance competition and open opportunities for smaller, local companies.

(c) Irrigation schemes require approximately 60–80 m³ of water per day. In Germany, a rule-of-thumb says that water consumption for households is less than 160 litres per day per person, with piped water. In Mozambique and in situations where water has to be carried, it is probably far less. On the basis of German figures, the quantity of water required to irrigate one hectare would be equivalent to the consumption of about 440 persons.

This is sometimes forgotten. There have been cases where the population has said that "this water source never depletes," but after the scheme was build, it became apparent that the yield of the water source was insufficient.

(d) It is necessary to clarify land rights prior to building an irrigation scheme. The study team has observed cases where people claimed traditional rights to a newly irrigated area because it had become more valuable with the irrigation installed. In one case, this has resulted in a complete impasse. In order to avoid these situations, land rights

ought to be clarified and, if possible, land titles obtained prior to starting construction of a scheme.

(e) Similar problems have emerged in cases where the management modalities of the scheme had not been sufficiently clarified prior to construction. The current policy is that the state constructs and subsequently owns irrigation schemes, while the users are responsible for operating costs and maintenance. Sharing these costs among the beneficiaries requires some formalised and institutionalised cost-sharing scheme that has to be consensual, and rules are required to ensure that beneficiaries actually pay in their contributions. Some schemes failed because this was not clarified in time.

(f) Technical studies are important not only in order to verify the availability of water, but also for determining the technical parameters of pumps where pumping of water is required. The fuel consumption of a pump depends significantly on whether it is the right pump for the situation. A pump designed for lifting water to an elevation in excess of the actual use wastes fuel and energy. A pump designed for a higher volume than is actually required wastes fuel and energy as well. Therefore, the technical specifications of the pump need to be established by technical personnel prior to its purchase.

It has been observed that some districts have acquired pumps "for subsequent distribution" that then, invariably, did not have the required specifications, resulting in excessive energy consumption.

(g) Pedal-driven pumps have been distributed by NGOs and the MINAG. In practice, these pumps have given many problems, principally because they required too much effort to be an attractive alternative to carrying water. Often, the cause is a bad choice of the equipment, when preference is given to cheap pedal-driven pumps with bearings that absorb too much of the human energy meant to lift water.

(h) Maybe the most important insight of the irrigation study relates to the gestation period of irrigation schemes. On average, 37 months (somewhat more than three years) are required between the initial idea and the actual implementation of irrigation schemes. Time required varies from 15 to 54 months (Table 17).

Table 17: Time required for implementing irrigation schemes

Phase	Average	Range
Identification and feasibility	4.3	3 – 6
Site analysis	4.2	2 – 12
Dimensioning	8.1	3 – 16
Procurement	12	7 – 17
Construction	9.9	4 – 21
Complete cycle	**37**	**15 – 54**

Source: Irrigation study, see Volume II of this AgPER

The procurement process is a major delaying factor. The study provides the following details, based on the case studies that were undertaken:

The most time-consuming steps are the approval by MINAG (2.5 months) and the approval by the *Tribunal Administrativo* (3 months).

Political pressure, exerted also by donors, and the political need to show results quickly frequently leads to the thinking that shortcuts in the process may be necessary. But the study shows that there are no "shortcuts to heaven" and that it can easily be counterproductive to skip or neglect the phases of technical studies and socioeconomic analysis of land rights and adequate management schemes.

The procurement process alone typically takes 12 months, with considerable variations. Table 18 shows the typical sequence and time required.

Table 18: Timeline for procurement for irrigation schemes

	Step	Responsible	Duration (months)
1	Technical proposal (technical characteristics, quantities)	Technical section	1.5
2	Approval by provincial director	Director	0.2
3	Preparation of bill of responsibilities, tender announcement	Purchasing department	1
4	Preparation of proposals	Bidders	1
5	Evaluation, selection, evaluation report	Tender jury	1
6	Approval of the evaluation report	Director	0.3
7	Approval of the process by MINAG	DAF – MINAG	2.5
8	Preparation and signature of the contract	Director, successful bidder	1
9	Aproval by the Administrative Court	Administrative Court	3
	Total		**11.5**

Source: Irrigation study.

(i) The irrigation subsector study found that there are few irrigation scheme where it could be said that they have been used to the full benefit, but more in-depth study of the profitability of these schemes are required. The study does not contain any ex-post cost-benefit analysis.

The Italian- and AfDB-financed irrigation projects did most things right: there was close cooperation with extension services of MINAG in order to propagate adequate inputs and techniques, there were efforts to secure markets for the increased production of often new produce, and there was cooperation with GAPI (a financial institution specialised in providing credits to small investments) to ensure that farmers of newly irrigated fields have access to seasonal credit.

Timing is an important aspect with regard to the economic and financial profitability of investments in irrigation. We did a model calculation that looks at two different scenarios, each for a 10-year production period after a three-year construction period:

- Scenario 1: A build-up of production from Year 1 to Year 5 at the pace of 10 percent, 40 percent, 70 percent, 90 percent, 100 percent, respectively, over the initial period

- Scenario 2: Production build-up from Year 1 to 5 at the pace of 80 percent in the first year and 100 percent from the second year onwards

The difference is significant: an internal rate of return of only 6.1 percent for Scenario 1, compared to 11.2 percent in Scenario 2. Therefore, speed in making use of irrigation schemes as early as possible matters.

The irrigation subsector study offers no evidence that suggests that feasibility studies, using cash flow discounting methods (in order to calculate an internal rate of return or the expected net present value of the investment), have been used in analysing the economic profitability of the investment. We strongly suggest that such calculations be made as a routine instrument to assess the additional production value, minus additional inputs required, that would be necessary in order to make the planned investment in the irrigation scheme economically profitable.

10) Detailed case studies would be necessary in order to determine, ex-post, whether the additional production and income that irrigation schemes have made possible would be sufficiently high to cover amortisation of the investment. The study concludes that in most cases the additional revenue allows to cover the operating costs of the scheme. However, this, in our opinion, is not enough: the scheme must be economically profitable, even where the farmers do not have to pay for the initial investment or its amortisation.

11) In many cases where low benefits were suspected or observed, this was due to difficulties in finding suitable markets and lack of working capital (seasonal loans).

4.6 Funding and capacity for agricultural research

251. Until 2004, agricultural research in Mozambique was carried out by several separate specialised institutions. In 2004, the IIAM was created by merging the former National Institute of Agronomic Research INIA, the Institute of Animal Production IPA, the Institute of Veterinary Research INIVE, the Forestry Experimental Centre CEF and the Centre for Agricultural Training CFA. Zonal research centres were also created to decentralise agricultural research and adapt the research environment to the different agroecological zones.

4.6.1 Expenditure on research

252. Determining how much was spent on research is a major challenge. Public accounts (CGE) show spending on the research subsector in separate lines from 2002 to 2004.[38] For 2005, spending by the three institutes INIA (crop research), INIVE, and IPA are shown separately. From 2006 onwards, IIAM appears in a separate line, already including all the parts that the merger had united. The treatment of the zonal centres is not clear. At times, they have been included in provincial spending under the allocation for the DPAs, and attribution changed over time.

[38] In these years, a rough functional classification was appended to the organic (institutional) classifier.

253. Data from MINAG's internal accounting system Arco-Iris show generally higher numbers for research than public accounts do. This may be due to some expenditure made in favour of the research institutes being accounted for as expenditure by the Ministry vis-à-vis the DNCP, but may not explain the discrepancy in full. Arco-Iris figures are probably more comprehensive for our purpose, although they might miss some projects in the area of agricultural research that were not managed by the MINAG.

254. Research generally benefits programmes for the exchange of international experience, visits of guest researchers, and research grants. These benefits typically do not appear in national budgets. The same is true for IIAM, which has several researches provided by CGIAR and paid directly by this organisation. Thus, the percentage of off-budget support to IIAM is most likely higher than in the other sections of public agricultural services. Therefore, the numbers presented here underestimate the total amount of resources available, to some extent.

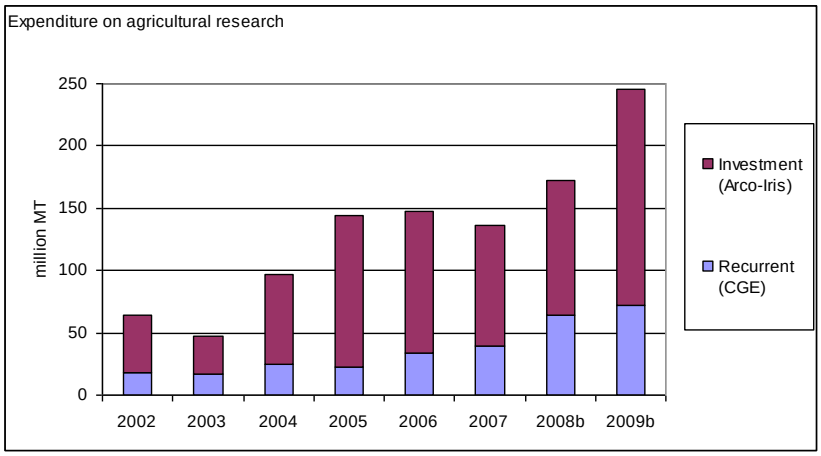
255. Under these circumstances, we base our analysis on

- figures from DNCP (CGE) for *recurrent* expenditure, which has presumably been attributed to the correct institution in most cases;
- figures from Arco-Iris for investment ("projectised") expenditure, which include spending on research that may have been accounted for as MINAG spending in public accounts; and
- for allowing a perspective for the most recent years: data for IIAM from the budgets 2008 and 2009, although knowing that the amounts allocated to IIAM in the budget are unlikely to be spent in full.

256. The resulting series on recorded public spending on agricultural research is shown in Figure 40. The increase from 2002–04 to 2005 and later is probably due to conceptual changes of coverage, and should not be interpreted without further investigation into the exact mechanism by which data in Arco-Iris were classified.[39] The increase after 2007, and particularly in 2009, is the result of a policy shift and increased recognition of the importance of agricultural research. However, since these are budget numbers, actual spending may fall short of these levels.

[39] See Section 3.6 with regard to the tendency to classify expenditure as "institutional support".

Figure 40: Expenditure on agricultural research, 2002–09



Source: AgPER Team, based on data from CGE for "recurrent" until 2007, Arco-Iris for "investment" until 2007, approved budgets for 2008 and 2009.

Note: Values are in current MT.

257. Spending on research in 2007 (MT 136 million) represents 4.1 percent of total spending on agriculture and fisheries (MT 3,281 million including OIIL and large-scale irrigation). Excluding the OIIL spending and the exceptional spending on large-scale irrigation (which gives an adjusted total of MT 2,291 million for 2007), spending on research represents 5.9 percent of public spending in agriculture.

258. Compared to the contribution of agriculture to GDP (MT 55,693 million in 2007 at current prices), the amount spent on public agricultural research amounts to 0.24 percent. By international standards, this is a very low level of spending.

259. In line with the Framework for African Agricultural Productivity (FAAP) recommendation, the IIAM through its investment plan for 2007–11 recommends that public expenditure on agricultural research should be at least 2 percent of the agriculture GDP.[40] It is argued that this amount would enable the institute to efficiently generate development-oriented research results that can significantly contribute to alleviating poverty and stimulating economic growth. This 2 percent target was proposed by the World Bank in the early 1980s based on investment levels of developed countries at that time. Average spending on research in other countries was, according to research work, 0.72 percent for Sub-Saharan Africa and 0.53 percent for developing countries in 2002. Research intensity varies considerably within the SSA countries. Botswana, South Africa, Swaziland, and Zambia all had intensity ratios between 2.2 percent and 3.7 percent in the early 1990s, the most recent figures available from a international comparison.[41]

260. Unfortunately, no information was available with regard to research expenditure disaggregated by crops, forestry, and animal husbandry.

[40] FAAP was prepared by the Forum for Agricultural Research in Africa (FARA) for NEPAD in 2006.

[41] Agricultural research and development expenditure intensity ratios for the SSA and developing countries were reported by Beintema and Stads (2007).

261. Within crop research, it would have been useful to distinguish between

- comprehensive or adaptive research,
- multiplication of prebasic to basic seed that is then sold to seed producers for further multiplication to certified seed, and
- laboratory and testing services.

Again, no breakdown of spending by these categories could be provided.

4.6.2 Research capacity

262. It is worth highlighting that the IIAM's investment plan calls for both institutional reform and additional funding to enhance the human resource and infrastructure capacity of the IIAM to develop technologies that can contribute to economic growth and poverty alleviation.

263. Qualified research staff is, of course, an essential ingredient in a well-focused and efficient research set-up. IIAM at present has 194 full-time equivalent researchers and research assistants. This is more than Botswana (96), Malawi (154), or Zambia (179) have. But Mozambique is a bigger country with larger surface, and therefore may still be comparatively understaffed in its agricultural research. East African countries have far higher numbers: 245 in Uganda, 524 in Tanzania, and 882 in Kenya.

264. Furthermore, the formal qualification of Mozambique's research staff is lower than in most of the region. Here, 37 percent of research staff have postgraduate-level training (MS or PhD), compared to 62 percent in Botswana, 71 percent in Zambia, 76 percent in Malawi, 67 percent in Tanzania, and 85 percent in Kenya. Furthermore, 48 percent of the staff with postgraduate-level training is located at the headquarters in Maputo.

265. Thus, research in Mozambique is obviously short of qualified research staff, and it becomes clear that institutional capacity needs to be improved in parallel with an eventual increase of the level of funding.

4.6.3 Challenges arising from the PAPA

266. The 2008 PAPA brings new challenges for the agricultural research institutions. Numbers in this document, which was prepared under severe time pressure, are not always consistent. It is unclear at this moment to what extent it will be financed, since 90 percent are expected to be financed by donors, according to the 2009–11 MTEF, and commitments are still low.

267. Each product section of the PAPA contains a separate budget table. The totals do not fully match with the totals shown in the summary table. But the numbers give an idea about which products are thought to require stepping up of research spending in the three-year period of the PAPA.

268. Looking at overall expenditure by product, the great emphasis under the perspective of public expenditure is on rice and maize production. Note, though, that large amounts are planned to be spent on irrigation for rice and silos for maize marketing (Table 19).

Table 19: Planned additional public expenditure for the PAPA

(million MT)

	Season			
Crop	**2008/09**	**2009/10**	**2010/11**	**Total**
Rice	1,242	2,179	2,051	**5,471**
Maize	1,199	1,233	1,156	**3,589**
Wheat	280	313	155	**748**
Chicken	218	14		**232**
Fisheries	96	116	278	**491**
Sunflower	70	76	19	**165**
Irish potato	31	34	45	**109**
Soybean	20	26	40	**85**
Cassava	2	3	5	**10**
Total	**3,157**	**3,995**	**3,748**	**10,900**
Of which MINAG	1,184	2,156	2,719	6,059
Of which research	30	96	103	229
Of which extension	237	349	468	1,055

Source: PAPA, Tables 45 and 45a.

269. Research proposed under the PAPA, on the other hand, is highly concentrated on rice and Irish potatoes. These two crops take about 87 percent of the PAPA projected budget allocations for research. It is mentioned that the research component for rice will be focused on production of basic seeds and generic purification.

270. Research on cassava takes only 1 percent of the total, despite the prominent role that cassava plays in terms of production value and potential for poverty reduction (Table 20).

Table 20: Research expenditure by product for the PAPA

million MT

	2008/09	**2009/10**	**2010/11**	**Total**
Maize	4.0	4.6	5.1	**13.7**
Rice	25.2	88.9	94.3	**208.5**
Wheat	1.1	2.2	3.3	**6.6**
Cassava	0.8	1.7	1.7	**4.1**
Potato	20.2	23.1	30.5	**73.9**
Sunflower	0.8	1.6	2.4	**4.9**
Poultry				**0.0**
Fisheries	3.5	3.5	3.5	**10.5**
Total	**55.6**	**125.6**	**140.8**	**322.1**

Source: PAPA, product sections.

271. Apart from planned spending on rice and Irish potato research, amounts are negligible, implying that the PAPA will not bring any general solution to the problem of low spending on research of those crops that are important for subsistence farming and rural income.

272. This might underline the perception that agricultural research needs to be seen in the wider context of an agricultural innovation system, which includes extension, access to credit for the introduction of new technologies, and dynamic markets.

273. In recent years, IIAM has in fact produced a number of new varieties, which can be multiplied to basic seeds for further multiplication by private seed producers. We were provided with the following list of available varieties that are either released or ready for approval to release:

Crop	Varieties
Maize	Sussuma, Djandza, Oliga, Hluvukane
Cotton	CA324
Groundnuts	Mamane, Nametil, CG 7, JL 24
Millet	Macia, Sima
Beans	IT16, IT18, CAL 143, sugar 131
Soybean	Ocepara 4, 627/5/7
Sesame	Nicaragua
Cassava	Nikwaha, Likonde, Mulaleia
Cashew	4.1AD, 7.10PA, 11.7PA, 5.12PA

274. Thus, there are some tested varieties available that could be multiplied and provided to seed producers if there were sufficient demand.

4.6.4 Some conclusions, many questions

275. In summary, the following can be said:

a) Public spending on agricultural research is low by all standards. This is also reflected by the relatively low number and low qualifications of researchers and research assistants.

b) A reasonable breakdown of actual spending by subsector or type of activities is not available.

c) The PAPA will provide substantial amounts on research on rice and on multiplication of seed potatoes, but will not substantially change the general situation of underfunded agricultural research.

d) A number of varieties are available for multiplication. However, the markets and farmers might not adopt them without agricultural policy taking a wider view of an agricultural innovation system.

276. Although agricultural research is often said to be very profitable, comprehensive and adaptive research have long gestation periods. Some seven years might be required for the development of new varieties and technologies, after which it takes another five to seven years for the new technology to be fully adopted by farmers. The full annual benefit will be

reached some 15 years after the research project began. Benefits generally fade out after 25–30 years because the technology tends to become obsolete. Thus, a long breath is required, matched by regular funding over an extended period.

277. Would the research institute be able to absorb higher funding and deliver innovations that would support and increase agricultural production that could be absorbed by markets? Are mechanisms in place so that innovation, adapted to the environment in which smallholder farmers act, could be disseminated and put into use? From the level of analysis carried out in this AgPER, we cannot draw conclusions. Additional studies and a critical review of the management structure and the appropriate mechanisms for defining a research agenda are required.

4.7 The regional pattern of subnational public expenditure on agriculture

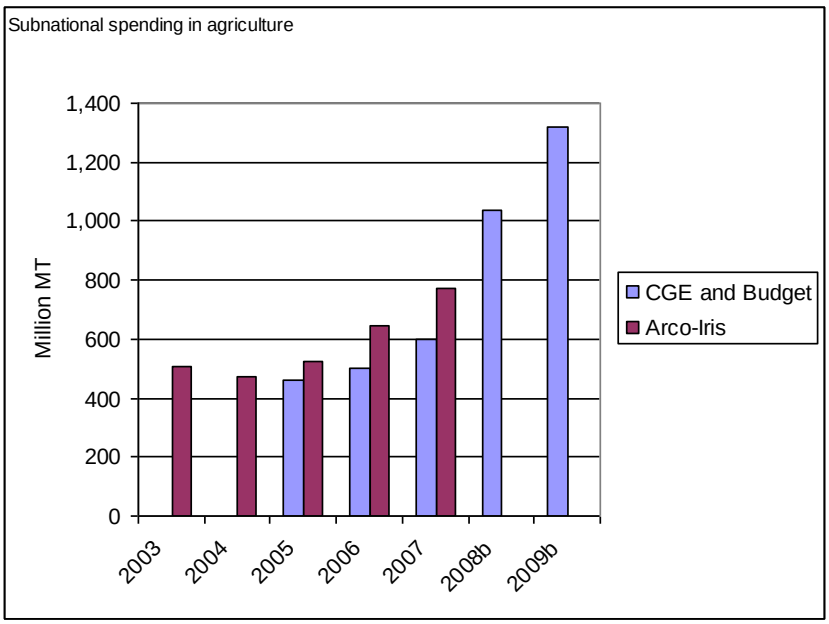
278. As was mentioned in Chapter 3, provinces and—indirectly—districts are receiving a large share of the funds for recurrent expenditure, and continue to receive a substantial share of total funds. This section provides a closer look at the spatial pattern of spending through the DPAs. Fisheries is not considered here because the regional pattern of expenditure would be clearly driven by the pattern of fish production, which is of very different importance in each of the provinces, mainly for natural reasons.

279. In this analysis, the institutes are not taken into account since their spending is centrally controlled and therefore appears as central spending in all accounting systems. Of course, a lot of it is in favour of provinces and districts.

4.7.1 Data sources and limitations

280. The analysis needs to be interpreted with substantial care, though, because data from the available sources—the public accounting system operated by DNCP and the MINAG-internal system Arco-Iris—differ considerably (Figure 41). Surprisingly, the Arco-Iris figures are higher than those derived from the public accounting system—one would expect the contrary because some provincial conventional projects may not have been captured by Arco-Iris. No reasonable explanation for this difference could be found.

Figure 41: Subnational spending of MINAG: Comparison of data sources, 2003–09



(million MT)

	2003	2004	**2005**	**2006**	**2007**	**2008b**	**2009b**
CGE and Budget			462	500	602	1,034	1,320
Arco-Iris	508	474	523	643	774		
Difference: % of CGE data			13%	29%	29%		

Source: AgPER Team, based on data from CGE, OE, Arco-Iris.

Notes: Data for 2008 and 2009 refer to the approved budgets; in earlier years, they refer to actual expenditure.

281. Furthermore, the two data sources provide quite different provincial patterns of expenditure; within the Arco-Iris series, spending for particular provinces fluctuates more than would normally be expected (Table 21).[42]

[42] The differences have no simple explanation. Zonal research centres may have been classified differently. There may also be expenditures that were considered as "central" in the public accounting system, while attributed to a specific province in Arco-Iris. There is also the possibility that a donor project was attributed to a province while not being captured at all by Arco-Iris.

Table 21: Provincial expenditure in agriculture by province

(million MT)

	Acro-Iris				CGE			
	2005	2006	2007	Average	2005	2006	2007	Average
Niassa	51.2	81.9	81.4	71.5	40.5	50.5	62.0	51.0
C.Delgado	40.7	56.2	103.9	66.9	39.8	47.1	66.1	51.0
Nampula	82.4	92.9	82.5	86.0	62.1	65.5	66.3	64.6
Zambézia	58.1	55.9	74.3	62.7	51.0	45.9	47.0	48.0
Tete	37.5	49.9	60.1	49.2	34.9	36.3	49.9	40.4
Manica	45.0	57.9	46.3	49.7	41.8	41.7	42.5	42.0
Sofala	45.0	71.6	71.5	62.7	51.6	68.6	65.4	61.9
Inhambane	71.4	69.0	114.2	84.8	40.0	52.4	69.9	54.1
Gaza	51.8	58.3	70.5	60.2	49.1	44.8	58.5	50.8
Maputo	40.3	47.6	63.1	50.3	46.7	42.8	65.3	51.6
Maputo Cde	0.0	1.5	6.3	2.6	4.4	4.2	8.8	5.8
Total provinces	523.3	642.5	774.0	646.6	462.0	499.6	601.7	521.1
Percent of total provinces								
Niassa	9.8%	12.7%	10.5%	11.1%	8.8%	10.1%	10.3%	9.8%
C.Delgado	7.8%	8.7%	13.4%	10.4%	8.6%	9.4%	11.0%	9.8%
Nampula	15.8%	14.5%	10.7%	13.3%	13.4%	13.1%	11.0%	12.4%
Zambézia	11.1%	8.7%	9.6%	9.7%	11.0%	9.2%	7.8%	9.2%
Tete	7.2%	7.8%	7.8%	7.6%	7.6%	7.3%	8.3%	7.7%
Manica	8.6%	9.0%	6.0%	7.7%	9.0%	8.3%	7.1%	8.1%
Sofala	8.6%	11.1%	9.2%	9.7%	11.2%	13.7%	10.9%	11.9%
Inhambane	13.6%	10.7%	14.8%	13.1%	8.7%	10.5%	11.6%	10.4%
Gaza	9.9%	9.1%	9.1%	9.3%	10.6%	9.0%	9.7%	9.7%
Maputo	7.7%	7.4%	8.1%	7.8%	10.1%	8.6%	10.9%	9.9%
Maputo Cde	0.0%	0.2%	0.8%	0.4%	0.9%	0.8%	1.5%	1.1%
Total provinces	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CGE and Arco-Iris

282. While some patterns emerge, many questions with regard to the validity of the data remain. In order to proceed, all subsequent analyses are based on a simplified approach: the simple average of the years 2005–07 (i.e., without taking inflation into account), using the data from the public accounting system (CGE), is the basis of the subsequent graphs and analyses. The spending in the City of Maputo, which refers to the Green Zones (Zonas Verdes), is not taken into account. Note that the U.S.-funded provincial projects in agriculture are not captured (because they are off-budget).

283. GDP data, which are used further down in the analysis, probably include the value added of the three big sugar estates in Gaza, Sofala, and Zambézia—an inconsistency because the public agriculture administration gives no direct support to sugar production, even where it is done through outgrower schemes. Irrigation is generally not included because it is financed by way of centralised projects and spending, so appears as a central-level expenditure.

4.7.2 Spatial pattern of spending

284. The provinces in Mozambique are of quite different sizes with regard to total and rural population, as shown in Table 22. Sixty-four percent of the total rural population live in the four provinces Cabo Delgado, Tete, Nampula, and Zambézia, with Nampula and Zambézia alone accounting for 44 percent of the country's rural population. These four provinces, with 64 percent of the rural population, receive only roughly 40 percent of the decentralised budget.

Table 22: Total and rural population by province, 2007

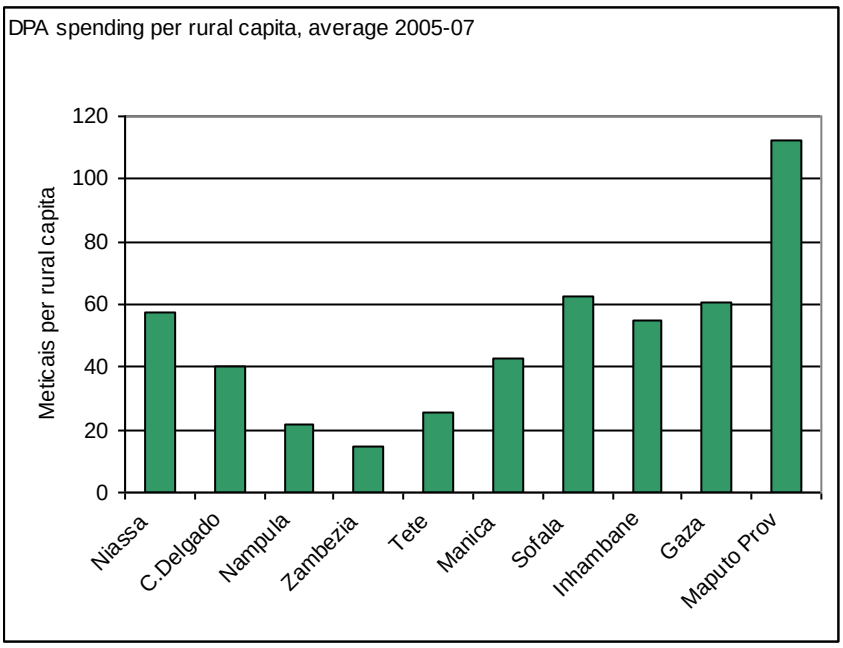
Province	*Total*	*Urban*	*Rural*	*% rural*	*% of total pop*	*% in total rural pop*
Niassa	1,178,117	290,725	887,392	75.3%	5.7%	6.2%
Cabo Delgado	1,632,809	356,506	1,276,303	78.2%	8.0%	9.0%
Nampula	4,076,642	1,118,672	2,957,970	72.6%	19.9%	20.8%
Zambézia	3,892,854	588,173	3,304,681	84.9%	19.0%	23.2%
Tete	1,832,339	260,934	1,571,405	85.8%	8.9%	11.0%
Manica	1,418,927	442,463	976,464	68.8%	6.9%	6.9%
Sofala	1,654,163	665,698	988,465	59.8%	8.1%	6.9%
Inhambane	1,267,035	285,554	981,481	77.5%	6.2%	6.9%
Gaza	1,219,013	379,699	839,314	68.9%	5.9%	5.9%
Maputo Prov	1,259,713	800,454	459,259	36.5%	6.1%	3.2%
Maputo Cde	1,099,102	1,099,102	0	0.0%	5.4%	0.0%
Total Mozambique	**20,530,714**	**6,287,980**	**14,242,734**	**69.4%**	**100.0%**	**100.0%**

Source: Preliminary results of the 2007 Census (taken from the INE website) and a tabulation of population by 132 urban agglomerations, which were deducted from the totals of each province. At the time of compilation of this report, the preliminary Census data had not yet provided a breakdown by urban/rural.

285. Figure 42 and Table 23 provide more details on rural per capita spending per province. The following observations stand out:

- The two most populated provinces rank least, by a considerable margin.
- Maputo Province receives more than three times the national average.
- Apart from Maputo Province, spending of provincial directorates for agriculture in the provinces of Sofala, Inhambane, Gaza, and Niassa was well above that of other provinces.

Figure 42: DPA spending per rural capita by province, average 2005–07



Source: AgPER Team, based on Tables 21 and 22. CGE spending data were used.

Note: For reasons of simplicity, the population in 2007 was used as a reference for all years, since year-to-year variations over three years will not make a significant difference.

Table 23: Rural population, DPA spending, and rural per capita spending by province, average 2005–07

	Rural population 2007	Spending of DPAs, average 2005-07 a/	DPA spending per rural capita	Rank
		million MT	MT	
Niassa	887,392	51.0	57.5	4
C.Delgado	1,276,303	51.0	39.9	7
Nampula	2,957,970	64.6	21.8	9
Zambézia	3,304,681	48.0	14.5	10
Tete	1,571,405	40.4	25.7	8
Manica	976,464	42.0	43.0	6
Sofala	988,465	61.9	62.6	2
Inhambane	981,481	54.1	55.1	5
Gaza	839,314	50.8	60.5	3
Maputo Prov	459,259	51.6	112.4	1
Total	14,242,734	515.3	36.2	

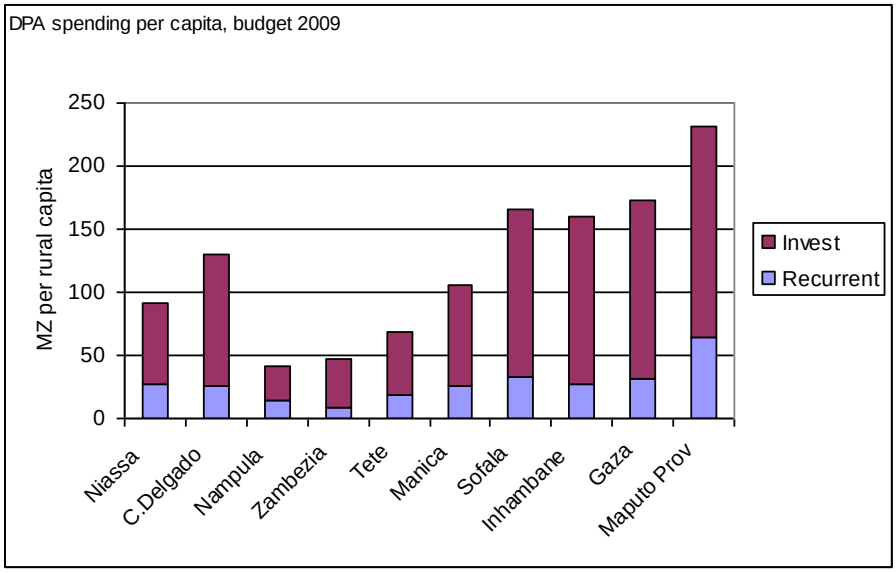
Source: Population: INE and estimate of urban population. Spending data from CGE (see Annex II Table 5).

286. We did a cross-check in order to see whether the situation has been corrected, and produced the same graph with the 2009 budget data. There are some changes, particularly with regard to Niassa (spending dropped). However, the general picture is still similar: the populated provinces' DPAs have less funds available per rural capita than those of the smaller provinces. Numbers for 2009 are higher than in previous years, which is in part due to enhanced decentralisation, but also is a reflection of the fact that budgets tend to be higher than actual spending.

287. It is noteworthy that the distribution of investment expenditure reinforces rather than compensates for disparities for recurrent expenditure (Figure 43). We would have expected a certain degree of compensation of imbalances in recurrent budgets via allocation of investment funds, since the level of recurrent expenditure—essentially salaries—is determined at the provincial level while MINAG has a stronger influence on investment funds. In a situation where overall financial envelopes to provinces are determined on the basis of past budgets and envelopes and tend to follow historic allocations, one would expect MINAG to attempt to allocate investment funds so that some correction of initial disparities is achieved. Apparently, this is not the case.[43]

[43] In the budget preparation process, provinces receive one single expenditure ceiling which they distribute across provincial directorates. The relative size of these ceilings does not change much from one year to the other. Provincial DPPFs also receive a list of allocations per sectoral directorate, but are allowed to deviate from this. However, the misalignment of provincial budgets for agriculture is not the result of the big provinces neglecting agriculture, but rather caused by the fact that their overall ceiling is low on a per-capita basis. Low level of financing per capita also affects the health and education sector. See Annex I for more details about the mechanisms of allocation of funds to provinces.

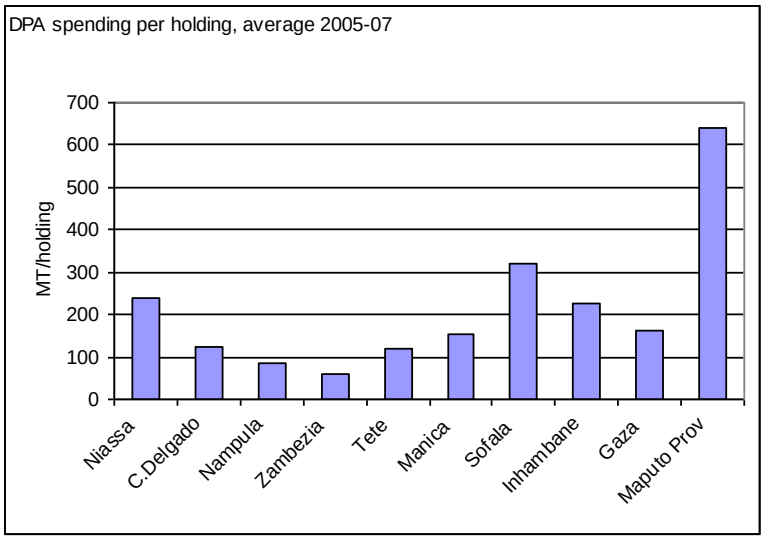
Figure 43: DPA spending per rural capita, budget 2009



Source: AgPER Team, based on data on spending from the Budget 2009; Population: INE and own calculation, data for 2007.

288. The ratio between agricultural holdings and rural population varies across provinces. Rural population may not be an adequate reference because urban population in small towns may be engaged in agricultural activities as well, while some rural population may work in mines, some industries, or sugar and similar estates. As a further check, the spending per holding was calculated. The result shows a somewhat different pattern. Nevertheless, spending per holding is also the lowest in Nampula and Zambézia provinces (Figure 44).

Figure 44: Public spending per holding, per province

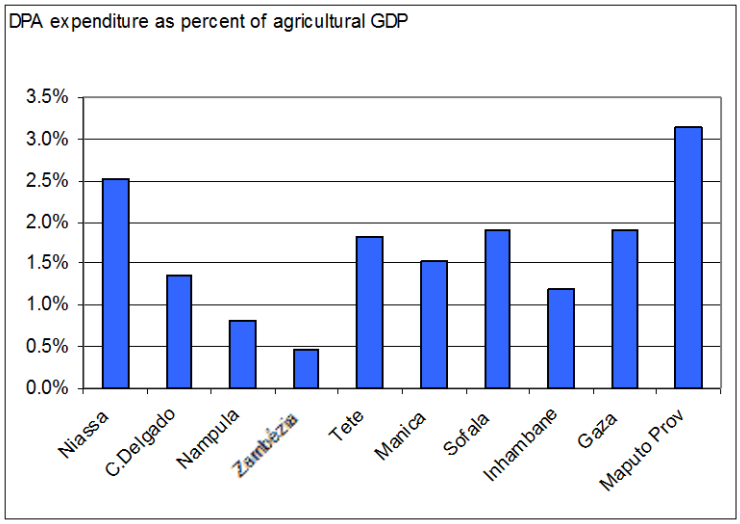


Source: AgPER Team, based on TIA data on number of holdings, spending data from CGE.

289. Another reference may be the ratio between provincial contributions to the agricultural GDP and public spending of the respective provinces, a ratio generally referred

to as spending intensity. The pattern is similar to what emerged from the analysis of spending per rural capita, but the differences are more striking: the three provinces responsible for most of the cereal production in Mozambique (Nampula, Zambézia, and Cabo Delgado) have the lowest spending as percent of agricultural GDP (Figure 45). Also interesting is that Cabo Delgado shows significantly higher growth rates for cassava and cereal production than does Niassa (comparing the period 1997–99 to 2005–07), indicating higher growth potential. At the same time, public expenditure, compared to agricultural GDP, in Niassa is twice of what it is in Cabo Delgado. Once again, Zambézia and Nampula, the two provinces with the largest rural population, come out last with regard to spending intensity.

Figure 45: DPA expenditure as percent of agriculture GDP



Source: AgPER Team, on the basis of data on spending according to CGE, INE for provincial GDP (specially compiled tables).

Note: The provincial GDP data presumably include sugar production on big estates in Gaza, Sofala and Zambézia.

290. What explains the disparities? It emerges from interviews that the current pattern is not based on conscientious prioritisation but that it "just happened" at some stage of history and is not adjusted in the context of the dynamics of annual budget preparation. Therefore, a conscientious and informed proposal about the spatial pattern of expenditure in agriculture is needed.

4.7.3 What should the reference be?

291. Although it is quite clear from the above analysis that the provinces of Nampula and Zambézia are poorly served, establishing what would be a reasonable spatial distribution of spending is more complicated. One has to distinguish the subsectors.

- Expenditure on the regulation and inspection of forestry activities needs to be distributed according to the localisation of forestry resources. The yield of forestry licenses and fines could serve as a proxy reference.

- Expenditure on the administration of lands needs to be concentrated in the areas with high conflicts over lands. This, in fact, might explain part of the high spending levels in Maputo Province.
- Expenditure on irrigation follows its own pattern; equitable distribution of spending across provinces can not be a reasonable guide for the spatial pattern of resource allocation.

292. Routine expenditure like spending on pest and disease prevention and control, quality control of seeds and produce, laboratory services, and basic extension should follow more or less the provincial GDP of agriculture. Most of these activities are not designed to prompt growth and modernisation, but rather to provide the public goods that are required to maintain and secure present levels of production.

293. For determining the spatial allocation of funds for promotional activities, there are basically three options:

(a) Equalise spending per rural capita or per agricultural holding. This approach would follow the logic that public services geared towards increasing agricultural productivity and farm income should be equitably distributed. Available funds in each province would then be spent on whatever activity provides the best value-for-money in terms of farm incomes.

(b) Maximise the marginal effect of spending: Preference would be given to those areas where the effect of additional public spending on rural income is the highest. This is not the same as giving preference to high-potential and productive areas, since production there might take place and prosper even in the absence of promotional spending. Following this principle, one would need to identify opportunities from technological innovations that farmers cannot apply without contributions of public services.

(c) Concentrate spending in areas with high production of crops that are prominent in national policy, i.e., crops that are essential for food security and self-sufficiency.

294. Economists would discourage (c), particularly in the cases where it is not very clear what difference public interventions would make in the medium run. The best path to follow is probably a combination of (a) and (b).

295. In view of the apparent disparities, we suggest that the criteria for the allocation of funds to provinces be reviewed, brought into the discussions with the ministries responsible for planning and for finance and that a formula-driven spatial pattern be designed as a broad reference from which special adjustments can and should be made.

296. Interaction and communication with the MPD and MF is crucial because allocations to provinces and DPAs are decided upon in the context of the national MTEF exercise. Therefore, the MINAG cannot allocate funds to specific provinces (except, to some degree, with regard to centralised investment funds). It has to convince MPD and MF that the spatial pattern needs to be reviewed, and provide criteria about what a more adequate spatial pattern would be. Because of the great influence of governors and the DPPFs with regard to the allocation of budget ceilings to the various provincial directorates, the MINAG also needs to support provincial DPAs in preparing the ground so that they

actually get the allocation if a provincial ceiling is eventually increased with the intention to top up spending in agriculture.

5. RECOMMENDATIONS

297. This final chapter draws some conclusions about the way forward that arise from the analysis presented in the previous sections of this report. Although the PER is unique in that it takes a broader view of the issues than most other studies have done, as well as by systematically linking strategies and activities to their budgetary implications, it still is only one piece of a whole series of analytical studies. Therefore, the following "recommendations" should be interpreted as **suggestions of possible solutions** that the various coordination and planning entities may wish to take up in their future work. The primary addressees are these:

- MINAG management in its role to coordinate the different directorates and ensure consistency with the interventions of the specialised institutes that are subordinated to or supervised by the MINAG;
- the drivers of the ongoing endeavour to strengthen the capacity of MINAG in the areas of financial management, planning, and human resources, which will be supported by the EC through a diversified series of consultancies from September 2009 onwards;
- the ProAgri donor group and ProAgri working group,
- the DE, and
- the team in the MPD that prepares the Medium-Term Expenditure Framework (Cenário Fiscal de Médio Prazo; CFMP).

Recommendations, in the sense of suggestions, that emerge from this report are as follows:

5.1 Financial planning and management systems

Recommendation 1: **Develop the financial planning and management system further in order to provide adequate space for the consideration of strategic options in view of their financial implications and expected impact.**

298. This AgPER had to cope, throughout the period of preparation of this report, with spending data that were not sufficiently disaggregated for detailed analysis, and series of data that were different with regard to their coverage and volume. This suggests that the MINAG itself is unlikely to be in a position to adequately weigh priorities, costs, and expected effects of spending in its planning and budgeting exercises. Much consideration is given to details, but the overall picture is too diffuse to be taken into account in decision making and budgeting.

299. In order to give more weight to the strategic lines of expenditure planning, it is suggested to develop further the principles and ideas that have led to the introduction of instruments like Arco-Iris and the activity planning exercises (PAAOs), while taking the new developments of the general accounting and financial management system in Mozambique into account. The current trend towards giving more responsibility not only

in implementation, but also in setting priorities to provincial and local authorities needs to be taken into account as well.

300. The suggestion, described in detail in Section 4.3 of the report, is guided by the need to give more visibility and provide more space to negotiate the strategic options (like the role and weight of the innovation system, the relation between core functions and promotional activities, etc.). The medium-term financial planning in the sector should play a more prominent role. Activity planning should be used *primarily* to facilitate decision making about the activities to be carried out under the umbrella of the approved budget, rather than as a tool for tabulating needs and preparing the annual budget proposal to the MF. The participative element that is associated with the PAAO could be given more value if participatory activity planning, with consultation with the beneficiaries of the services, were to be carried out under a firm financial ceiling that leads to a realistic and monitorable activity schedule.

301. With e-SISTAFE now fully operational in its essential functions (accounting and payments), Arco-Iris has become a parallel accounting system. Since spending responsibility in agriculture is dispersed over a significant number of spending units (provincial directorates, specialised institutes, national directorates that will soon be spread to various places in Maputo due to the impending reconstruction of the present building that used to accommodate most parts of MINAG), synchronization of e-SISTAFE and Arco-Iris will become increasingly difficult. In view of scarce skills, particularly in the area of financial management, avoiding any duplication of accounting procedures is highly desirable. e-SISTAFE has the capacity and the structure to accommodate the classification dimensions that Arco-Iris has attempted to implement. Although some sectors (health and education) are contemplating the installation of their own parallel accounting systems in view of the slowness of UTRAFE, the agency that develops and operates e-SISTAFE, in responding to requests from sectors to implement functionalities that would make e-SISTAFE useful for sector-internal financial management, it is worth insisting on the development of the desired features so Arco-Iris can eventually be phased out.

302. Some of the suggested elements of further development of the planning and financial management system are already on the agenda of the MINAG and constitute some of the core tasks for a EC-financed consultancy designed to support this area. We suggest, however, that the medium-term financial planning that encompasses *all* the institutions of the sector be upgraded so it becomes a useful instrument for negotiating operational priorities within the ministry as well as for substantiating requests for funding from the MPD in the context of the national MTEF round.

Recommendation 2: **Design a suitable structure of programmes and subprogrammes that can be used for all financial planning and management aspects.**

303. As explained in Section 4.3, an adequate programmatic structure of the activities of MINAG and its institutes is crucial for the success of further development of the systems and procedures in the areas of operationalisation of strategies, budgeting, and activity planning. The structure should be uniform at the first two or three levels of classification. Programmes should be designed in such a way that responsible managers for a programme, to the extent that it is carried out in a particular spending unit, can be identified. This manager should then be responsible for delivering the expected results while being responsible for the day-to-day management of the available allocation. The programmatic

structure should allow users to distinguish clearly between core functions and promotional, which typically are time-bound activities.

Recommendation 3: **Include the Agricultural Development Fund (FDA) in all planning exercises.**

304. Beginning with the budget for 2009, the FDA is shown in the approved budget, and will therefore also appear in the government's financial reports. This is a first step towards a more holistic approach to expenditure management, but more is required. The FDA contributions should appear identified in the medium-term financial plan that is the basis for MINAG's submission to the MPD for the national MTEF, and they should be presented as an integral part of the programmatic structure of the medium-term financial plan. FDA spending should be fully integrated into the spending plans for each programme and subprogramme in the relevant areas.

5.2 Expenditure pattern and strategies

Recommendation 4: **Ensure that the core functions of the agricultural administration are not marginalised by the provision of private goods in the context of the PAPA.**

305. The core functions are of crucial importance in order to allow private farmers to continue to produce and develop. These core functions consist of

- agricultural research and innovation, including extension services;
- pest and disease control for crops and animals;
- adequate market regulation and supervision, including price information for farmers and traders;
- regulation of forestry activities and licensing;
- certification of agricultural produce mainly for exports;
- supervision and control of producers of certified seeds; and
- administration of agricultural land and implementation of the Land Law, including the issuing and control of land use rights.

306. The most important prerequisite for ensuring that core functions are not marginalised is to make a clear distinction in activity planning and in budgeting between allocations to core functions on the one hand, and allocations to special promotional activities on the other.

307. Speedy conclusion of the PEDSA, the strategic plan for agricultural development, would be a valuable contribution towards maintaining the right balance between core functions and promotional activities.

Recommendation 5: **Review and adjust the spatial pattern of budgetary allocations.**

308. The analysis of the regional pattern of spending has shown that some provinces consistently receive very low allocations, for recurrent as well as for investment expenditure, if the size of the rural population and the number of holdings are used as a

reference. There is no indication that these disparities were planned or have a rational underpinning.

309. Against this background, it is recommended to devise a formula to arrive at a desirable regional pattern of expenditure, which takes rural population, holdings, agricultural GDP of the province, geographic dispersion of the population, the incidence of forest resources, the importance of conflicts over land use rights, and the gap between actual production and potential into account. The result should provide an orientation for the direction of adjustment of the spatial pattern of resource allocation, starting from which further adjustments can be made in order to give preference to those areas where public spending for promotional activities have the highest marginal impact on farm income and food production.

310. The eventual adjustment of the spatial allocation pattern requires intensive interaction between the MINAG and the MPD and MF.

Recommendation 6: **Produce evidence of the impact of activities developed by the MINAG on rural incomes and food production.**

311. The global analysis of spending in agriculture as percent of total public expenditure shows that Mozambique is well below the target adopted by the African heads of state in 2003. Spending related to the other variables such as agriculture GDP or rural population is not particularly low, but also not extraordinarily high. Given the current political climate in Mozambique, in the region, and worldwide, there seems to be scope for stepping up spending. However, it is necessary that the MINAG, as well as the MP, can show what the impact of past spending was and present robust and quantified arguments about what the expected effect of increased spending will be.

312. With regard to the core functions, such evidence is conceptually difficult but not impossible to produce. It is of utmost importance with regard to promotional activities, especially when these include the provision of private goods, like the provision of subsidised inputs or targeted credit, or state interventions in the value chain by, for instance, facilitating processing industries and storage facilities.

313. There is particular need to demonstrate the positive impact of the elements of the agricultural innovation system, which comprises at least the areas of research, extension, and provision of inputs motivated by the desire to accelerate the adoption of innovations by farmers. In the course of this study, we have been unable to find documents that provide evidence for beneficial effects of innovations. Under such condition, it would be difficult to request more funds for innovation from donors or from the MF.

Recommendation 7: **Introduce economic analyses in the context of irrigation projects.**

314. The study on the irrigation sector, prepared in the context of this AgPER, has raised some doubts about the profitability of some irrigation schemes, and has shown no evidence of ex ante assessments of the expected economic and financial profitability of planned irrigation schemes.

315. Against this background, and given the amounts that are spent and planned to be spent on irrigation, we recommend that economic and financial viability analyses become a

mandatory aspect of technical and social feasibility studies for the preparation of individual irrigation schemes. If prepared in conjunction with the potential beneficiaries, this also has the benefit of demonstrating the importance of building up production quickly and having identified markets and marketing possibilities.

Recommendation 8: **About the "seven million".**

316. This AgPER did not specifically look into the way in which the local investment funds meant for the promotion of food production and employment are used, nor did it look at the effects. It simply assumed that 50 percent of the amount allocated to districts for this purpose are used for agriculture. But this alone highlights that the amounts dedicated for this purpose are substantial, and that the total was higher than the allocation from general treasury funds to the whole MINAG in 2007. The ratio has become more reasonable since, particularly in the budget for the year 2009, because the allocation of general treasury funds to the MINAG at central and provincial level and to the research institute have been increased substantially. But the weight of the OIIL (the 50 percent assumed to benefit agricultural activities) in the overall allocation of general treasury funds is still very significant.

317. The OIIL has a local empowerment dimension as well, because the funds are meant to introduce economic dynamics to districts and enhance consultative mechanisms at the local level. Therefore, the efficiency of its use cannot be the only criterion. The mechanisms for the administration are still evolving, giving room for expectations that efficiency and effectiveness of those funds spent on agricultural activities will improve.

318. Nevertheless, some questions emerge that may guide future discussions:

- How does the impact of OIIL spending compare to a situation where the same amount would be used in order to improve public agricultural services at the district level (like extension services) and build and maintain feeder roads, bridges, and markets? How do the alternatives compare in the short term versus the medium term?
- Is the lack of access to credit a key constraint to agricultural development, or are knowledge about available technologies, market prospects, and accessibility more important?
- If financial services are believed to be the key constraining factors, how does the present approach to distributing the OIIL funds compare to, for instance, subsidies to the operational, remoteness-related costs of professional financial service providers?

Since it was not the task of this report to study the OIIL, no elaborate recommendations are provided in this context, apart from raising the questions and suggesting that they be raised in the appropriate context as well.

5.3 Studies and statistics

Recommendation 9: **Collect information on private investment in the TIA questionnaire.**

319. Attempts to assess the volume of private investment in agriculture failed to give the expected results, essentially because no information is available about investment in land and equipment undertaken by smallholders. It is therefore recommended that questions relating to private, holding-level investment be included in the TIA questionnaire and in the analysis. It is also recommended that the CPI (export promotion) follows up on the approved projects and collects data on actual annual investment outlays by the approved projects which receive investment incentives.

Recommendation 10: **Undertake a study on the consistency of public services *for* agriculture at selected localities (provinces or districts).**

320. Growth in agricultural production and income will only take place if there are accessible markets, commercial channels for agricultural inputs, and products and financial services for saving, credit, and insurance, in addition to appropriate farming technologies. It is the responsibility especially of provincial and district governments to ensure "the right mix" of public services along the whole value chain. Admittedly, their influence on this is limited at the moment, but their respective coordinating roles are increasing.

321. If Mozambique was to follow by the letter the recommendation to increase spending in agriculture to the level of 10 percent of total expenditure, as recommended by the African heads of state, and given the narrow definition of agriculture that does not include the upstream and downstream elements of the value chain, a situation where additional spending in agriculture effectively crowds out spending on roads, trade, markets, and processing and storage facilities could occur.

322. Therefore, it is recommended that more analytical work be done in this field in order to guide the interventions of the agricultural administration and to facilitate the arbitration process between, for example, agriculture and feeder and regional roads, in the context of the MTEF process.

323. Analysing the whole value chain and the prospects and constraints for its development is also crucial in the context of designing successful promotional activities, like in the context of the PAPA, in order to avoid failures.

Recommendation 11: **Prepare a separate PER on the fisheries sector.**

324. The fisheries sector was included in this AgPER only with regard to the analysis of global spending data and a few structural characteristics of spending. For lack of time and resources, it has not been possible to dig deeper. Nevertheless, a thorough analysis of spending in the fisheries sector would be opportune in view of the current challenges and problems of the sector as well as its substantial volume of financial resources. Similar to the agriculture sector, a distinction between the different functions (like oversight of sea fishing, promotion of aquaculture, quality control, facilitation of storing, and processing facilities) and between the promotional and the regulatory role may provide valuable insights. Virtually all investment is channelled through the Fisheries Development Fund

(FFP), which is on-budget, but without details as to the type of activities that it undertakes and finances.

325. Therefore, we recommend that a separate, shorter PER be carried out for the fisheries sector in the near future.

5.4 Suggestions for the value-for-money audit

326. A value-for-money audit in agriculture will be undertaken soon. The scope of work of this AgPER was also designed in view of avoiding duplication with this piece of work, and providing background information and inputs into the upcoming audit was stated explicitly as one of the objectives of the AgPER.

327. Therefore, to complete the recommendations, the AgPER team would like to provide the consultants charged with the audit with the following suggestions:

a) The audit would benefit if a clear distinction between the provision of public goods (essential support services for the agriculture sector) and private goods (subsidised inputs and other items that could, in principle, be provided by the private sector) would be made. The distinction is important with regard to the expected results that would constitute the "value for money": many public services in agriculture are an important supplement and precondition for an enabling environment for private sector activities. They do not necessarily lead to growth of agricultural production and income, but are required in order to maintain the current level. For the innovation system, the expectation would be gradual improvements of labour or land productivity. Opposed to public goods, private goods would be expected to lead to a sustainable and strong increase in productivity and production.

   The distinction is therefore necessary in order to determine what the "value" is that is expected for the "money."

b) The public agricultural administration provides a variety of services. The adequacy of the mix is relevant, but the correct mix depends on local conditions and the structure of agricultural activities in a specific location. The audit could provide insight into the question whether the mix is adequate and whether it corresponds to local requirements.

c) Still at the local (provincial or district) level, we see a variety of contributions and interventions driven and financed by the central, provincial, and district layers of the agriculture administration. The question of whether coordination mechanisms ensure whether these interventions, *together*, provide an adequate bundle of support services could be analysed in the context of the value-for-money audit. For doing this, the audit would need to look at the efficiency and effectiveness of spending for a specific district or province and analyse the combined effects, rather than looking at spending by one entity in isolation.

d) Valuable insight into the design of promotional measures that are planned in the context of the PAPA could be generated if the audit had a special look at some promotional schemes that have been in operation for two to three years in the areas of

vegetables (tomatoes in particular), Irish potatoes, rejuvenation of cashew trees, or substitution of coconut trees. There may be other relevant examples that the audit could choose to examine with regard to the impact of public spending in the area of promotional activities that use subsidised provisions of inputs as a key instrument.

BIBLIOGRAPHY

African Development Bank (AfDB)/Organisation for Economic Co-operation and Development (OECD). 2008. *African Economic Outlook: Mozambique*.

African Union (AU). 2005. Declaration on agriculture and food security in Africa. Assembly/AU/Decl.4 (II), 2003.

African Union (AU) and New Partnership for Africa's Development (NEPAD). 2005. *Guidance Note for Agriculture Expenditure Tracking System in African Countries.* September.

Beintema, N. M., and G.-J. Stads. 2006. *Agricultural R&D in Sub-Saharan Africa: An era of stagnation.* Background paper. Washington D.C.: Agricultural Science and Technology Indicators (ASTI) Initiative, International Food Policy Research Institute (IFPRI).

Boex, Jamie, Abdul Ilal, Eduardo Nguenha, Rudeini Toneto Jr. 2008. *Intergovernmental fiscal relations in Mozambique.* Final Report prepared for the World Bank. May.

Cabral, L., and Dulcídio, F. 2008. *Environmental Institutions, Public Expenditure and the Role for Development Partners: Mozambique Case Study—Final Report.* Overseas Development Institute (ODI). February.

Finney, C.E. 2003. *Mozambique Public Expenditure Review: Background Paper on Agriculture.*

Global Donor Platform for Rural Development. 2007. *Formulating and Implementing Sector-wide Approaches in Agriculture and Rural Development: The National Programme of Agrarian Development (ProAgri)—Mozambique.*

GoM (Government of Mozambique). 2000. *Action Plan for the Reduction of Absolute Poverty (2001–05) (PARPA) (Poverty Reduction Strategy Paper) (Plano de Acção Para a Redução da Pobreza Absoluta, 2001–05 PARPA I*). Translated from original text in Portuguese, Final Version approved by the Council of Ministers, April 2001.

———. 2005. *Plano de Acção Para a Redução da Pobreza Absoluta, 2006–09 PARPA II. Action Plan for the Reduction of Absolute Poverty 2006–09 (PARPA II).* May 2, 2006.

IMF (International Monetary Fund). 2008. *Republic of Mozambique: Second Review under the Policy Support Instrument and Request for Waiver of Nonobservance of Assessment Criteria.* IMF Country Report No. 08/220. Washington, DC.

Lawson, A., Umariji, M., Guilherme, J., and Chachine, C. 2008. *Assessment of Public Finance Management in Mozambique, 2006—Based on the PEFA Methodology.* Final Report, UTRAFE MF, Mozambique. February.

MINAG (Ministry of Agriculture). 2004. *Strategy Document ProAgri II*. Maputo, March.

MINAG (Ministry of Agriculture). 2007. *Final evaluation of the first phase of the national Agriculture Development Programme ProAgri (1999-2005).* Prepared by PriceWaterhouseCoopers. Maputo.

MINAG/DE (Ministry of Agriculture, Directorate of Economy). 2007. *Results of the TIA survey* (*Resultados do TIA (Trabalho de Inquérito Agrícola) 2007*). PowerPoint Presentation.

MINAG (Ministry of Agriculture). 2008. *Food Production Action Plan (Plano de Acção para a Produção de Alimentos).* PowerPoint Presentation to the Coordinating Council (Conselho Coordenador) of MPD. Macuácau, June.

MINAG (Ministry of Agriculture). 2007. *Concepts, principles and strategy of the green revolution in Mozambique (Conceito, princípios e estratégia de revolução verde em Mmoçambique).* Approved by the Council of Ministers in 2007. Maputo.

MINAG (Ministry of Agriculture). 2006. *Priorities for Agrarian Development 2006–09* (*Prioridades de Desenvolvimento Agrário 2006–09).* Executive summary. Maputo. September.

MPD (Ministry of Planning and Development / MF (Ministry of Finance). 2008. Medium-Term Expenditure Framework 2009–11 (*Cenário Fiscal de Médio Prazo 2009–11*). Approved by the Council of Ministers on Setember 2nd, 2008. Maputo. September.

NEPAD (New Partnership for Africa's Development), CAADP (Comprehensive Africa Agriculture Development Programme/FAO-TCI. 2004. *Mozambique: National Medium-Term Investment Programme (NMTIP).* Volume I of V.

Price Waterhouse Coopers. 2006. *Final Evaluation of the First Phase of the National Agriculture Development Programme—ProAgri (1999–05).* Volume I: Main Report. Maputo.

Renzio, P., and Sulemane, J. 2007. *Integrating Reporting of PRS and Budget Implementation: The Mozambican Case.* National Directorate of Studies and Policy Analysis, Ministry of Planning and Development (Ministério da Planificação e desenvolvimento), Mozambique. Discussion papers No. 38E, March.

Reviere, Rodney; Thomas Thomsen; Ilse Hoffmann. 2008. *Análise de capacidade técnica de gestao de finanças publicas, planificacao e monitoria estratégica do MINAG.* Consultancy report prepared for the European Commission, Maputo Delegation. ACE, Asesores de Comercio Exterior, SL. (Spain).

Republic of Mozambique and Signatory Partners. 2007. *The National Program for Agricultural Development (ProAgri), Second Phase 2007–10—Memorandum of Understanding.* Maputo. February 12, 2007.

Republic of Mozambique. 2008. *Food Production Action Plan (Plano de Acção para a Produção de Alimentos—PAPA), 2008–11.* Maputo, Version 11. June.

Sulemane, J. 2006. *Mozambique: Better Budget Machinery—First Focus of Reforms.* In *OECD Journal on Budgeting*, **6** (2). OECD, Geneva.

Tschinkel, Gerald and Rainer Tump. 2008. *Study on the institutional framework for decentralization in the agricultural sector in Mozambique.* Consultancy report for the European Commission, Maputo Delegation. Pepared by IBF International consulting. Brussel, Final Draft. July.

UNDP (United Nations Development Programme). 2006. *Mozambique National Human Development Report 2005—Reaching for the Millennium Development Goals.* Maputo.

World Bank. 2003. *Mozambique Public Expenditure Review. Phase 2: Sectoral Expenditures.* report No. 25969-MZ. Washington, DC.

———. 2005. *Mozambique Country Economic Memorandum: Sustaining Growth and Reducing Poverty.* Report No. 32615-MZ. Washington, DC.

———. 2006. Mozambique: *Agricultural Development Strategy—Stimulating Smallholder Growth.* Report No. 32416-MZ. Washington, DC.

———. 2007. *Implementation Completion and Results Report—Mozambique: First Phase of an Agricultural Sector Public Expenditure Program (ProAgri).* Report No. ICR0000337. Washington, D.C.

ANNEX 1: THE BUDGET PREPARATION AND EXECUTION PROCESS IN THE AGRICULTURAL SECTOR IN MOZAMBIQUE

1. INTRODUCTION

The aim of this annex is to describe the budget preparation and execution processes in the agricultural sector. Although the agriculture expenditure review will look at the broader providers of public services for the agricultural sector, defined broadly as including fisheries and rural development, this annex concentrates on planning, budgeting, and budget execution, mainly in the MINAG.

The annex is divided in five sections. Section 2 provides an overview of the main processes, instruments, and documents of public financial management at the national level, and analyses some of their main features, important strengths, and weaknesses. Section 3 looks into the specificities in the MINAG and the additional instruments in use in this ministry. Section 4 looks at budget execution and reporting issues, followed by Section 5 which presents existing monitoring and reporting procedures and issues.

Most of the points made come from experience at the MINAG in recent years. Specific aspects related to other institutions are included when readily available.

2. BUDGET AND PLANNING SYSTEMS IN MOZAMBIQUE

National planning instruments

In Mozambique, the national planning and budgeting exercise is coordinated by the MPD and the MF. There are three **planning instruments** for the government as a whole, and these also apply to the agriculture sector and its main institutions. MPD is responsible for the elaboration of the PARPA (PRSP, five years), the CFMP[44] (MTEF, three years), and the annual PES. The **budget** proposal is prepared by the MF.

Up to 2005, there was a Ministry of Planning and Finance, and all instruments were prepared in one directorate. Since the split in 2005, which became operationally effective in the beginning of 2006, there tends to be close cooperation between the responsible directorates in the two ministries.

[44] Literally, the CFMP would correspond to a Medium-term *Fiscal* Framework. In spite of the name, though, the CFMP follows the vision and methods of what is normally called a MTEF. It includes a revenue projection and rather detailed spending plans for a rolling three-year period.

On top of the hierarchy is the five-year government programme (Programa Quinquenal do Governo; PGQ), the government programme that is presented to the National Assembly within 60 days of a new government taking office. It is largely based on the winning party's election manifest.

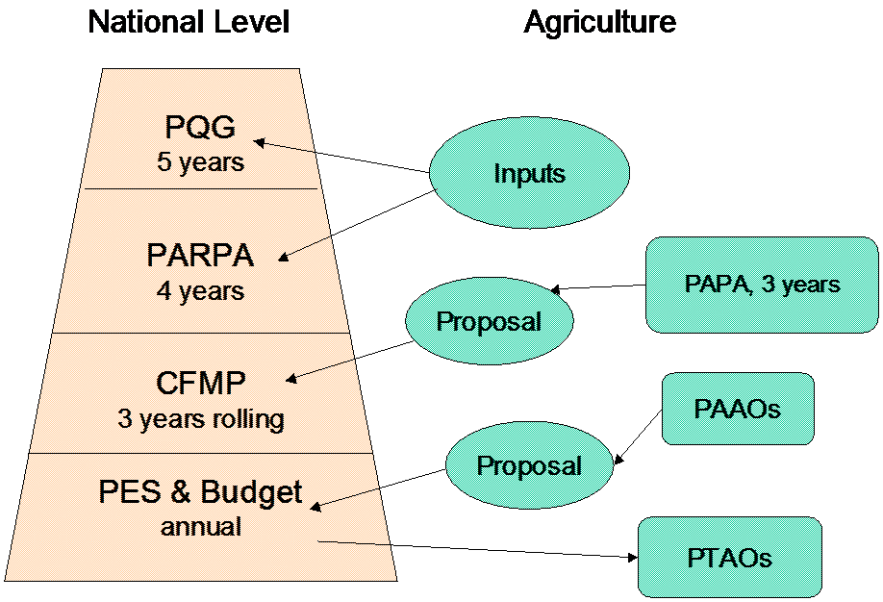
The **PARPA** spells out the objectives of the five-year government programme in more detail. It is the main policy and reference document that guides the MTEF and the annual budget and PES. The PARPA is Mozambique's PRSP.

Implementation of the PARPA is being monitored through the annual report on execution of the previous year's PES (Balanço do PES; BdPES) which is submitted to the National Assembly and discussed in a plenary session. Thus, the PRSP monitoring reports are automatically considered by parliament. The PES includes a table of indicators and targets, the so-called PAF indicators, that summarise key monitoring aspects in priority areas.

The PARPA was prepared in a process that involved intensive interaction between the MPD and the line ministries (called "sectors" in Mozambique). The annual PES is prepared on the basis of proposals that sectors (ministries, institutions) send to MPD. The proposals are consolidated and adjusted before the final document is presented to the National Assembly. The final proposal is not necessarily negotiated with and agreed upon by the sectors.

The **CFMP**, which precedes the budget preparation period, provides the budget ceilings for the following year ("Year 1") and tentative ceilings for additional two years. The CFMP is coordinated by MPD, but again is a joint effort between the MPD and MF. The CFMP proposes the allocation for all sources of revenues, including aid that comes as general budget support, sector programme support, or traditional projects.

Figure 46: Hierarchy of Planning Instruments in Mozambique



Source: AgPER Team

Note: PTAO = quarterly activity plans (Planos Trimestrais de Actividades e Orçamento).

The CFMP process is gradually becoming more institutionalised. Until 2005, the CFMP was prepared on the basis of a revenue projection and allocated spending envelopes to broad groups of sectors without consultation and interaction between the MF/MPD and the sectors. Hence, it was equivalent to what is generally referred to as a medium-term *fiscal* framework, or MTFF. Since 2006 (for the 2007 budget), sectors are being consulted extensively, and the CFMP is becoming a medium-term *expenditure* framework. Guidelines are regularly issued that prescribe the format of the required proposals that sectors should make. The allocations are not negotiated, and the process is still very much in development—every CFMP since 2006 was quite different. In particular, the CFMP does not (yet) place much emphasis on the outer years, and it takes the pattern of external aid as an exogenous variable which the CFMP simply takes note of, rather than trying to influence aid patterns in order to improve the alignment of expenditures to objectives. For the time being, the CFMP is more of a prebudget for Year 1 with an extension of another two years; the numbers shown for Years 2 and 3 do not yet have much significance.

The CFMP is prepared between November and February, when the sectors have to submit their proposals to MPD. After discussions and consolidation, the final CFMP document is submitted to the Cabinet (Conselho de Ministros) in mid-May (although this deadline was missed by more than two months in 2008). The Year 1 figures of the CFMP then become the ceilings for the subsequent phase of preparing the annual budget.

The most recent version of the CFMP (2009–11) adopts a programmatic classifier, initially only at central level and only for investment expenditure. The intention, however, is to rapidly expand this methodology to cover all institutions and also the recurrent budget, as foreseen by the SISTAFE law and regulation. The budget proposal for 2009 already classifies *all* expenditure, including recurrent, into programmes, although the classification still requires a great deal of improvements in order to enhance the transparency of the budget and allow to link budgets to plans.

The annual **OE** and the **PES** are produced by the MF and MPD, respectively, and submitted to the National Assembly (parliament) by the end of September. All ministries and spending units are required to submit their proposals for the PES as well as for next year's budget to these institutions by the end of July each year.

The PES is often referred to as the "other side of the coin" with regard to the budget. It lays down the basic assumptions underlying the revenue projection, and spells out what will be done with and achieved by the expenditure plans contained in the budget proposal.

Both documents, PES and budget, are presented to and approved by the National Assembly, usually by mid-December, just in time for the start of the financial year in January.

The PES presents planned activities by public institutions, but also gives a forecast about economic activities that are the basis for the revenue projection and, to some extent, the policy background that leads to the demand for public services. In the social sectors, targets are spelled out rather clearly. In the economic sectors, however, much of the PES text deals with forecasting production, while the part describing activities of the respective public

services remains very superficial because it often dwells on activities of limited scope just because they are measurable.[45]

PES and budget remain, until today, difficult to link and to compare, for two reasons. First, they are prepared by different groups of people in different organisational units who interact, but often not enough in the hot phase of adjustments before the documents are sent to the National Assembly. The disconnect between the planning side (PES) and financial side (budget) also exists within the line ministries. The second reason is the lack of a programmatic classifier, with the result that institutional budgets cannot be disaggregated into components or segments that could be linked to the policies and objectives within one and the same sector.

Classification of expenditure

Budgets and financial reports are classified according to the commonly used dimensions:

- institution/spending unit, which also indicates whether the spending unit is at central or provincial level, and in which province;
- recurrent or investment expenditure;
- economic classification (type of expenditure);
- source of funds (broadly classified as "internal" or "external," and then further subdivided by modality and donor, or type of internal revenue if it is earmarked);
- function; and
- since 2009, by programme.

There are some specificities to mention:

a) The institutional classification does not normally go deeper than a ministry or autonomous organisation. Different from many other countries, the budget does not normally distinguish between directorates within the same ministry unless an independent institute has been charged with the subfunction and therefore appears as a spending unit in the budget. However, every provincial directorate has its own institutional classifier and can therefore be discerned.

b) The term "investment expenditure" (*despesa de investimento*) refers to expenditure organised in projects. A project often refers to temporary, nonroutine expenditure, but this idea has become diluted over the years. External financing of an activity alone was enough to make it temporary—not because of the nature of the activity, but because of the funding source. All expenditure funded through earmarked external funds (i.e., funding that is not general budget support) is organised in projects and therefore appears under investment expenditure. There are, however, a number of projects financed exclusively by internal funds. Thus, the term "investment expenditure" is misleading as it refers to projects, and

[45] An example: "Provide 200 pairs of oxen to farmers."

projects can be a convenient management category to organise even routine expenditure. In no way does it refer to capital expenditure.

How much routine expenditure is organised in projects and therefore appears as investment expenditure depends on the sector. In general, the higher the degree of earmarked external funding to a sector, the higher the amount of routine expenditure shown as investment expenditure.

c) The economic classifier for recurrent and investment expenditure is the same.

d) GBS mixes with internal revenue at the level of the treasury. What is shown in the budget as expenditure against internal funds therefore refers to internal plus GBS funds.

Several sectors have sector programme support schemes where donors pool funds that the beneficiary sector can use for almost every type of expenditure. They are referred to as sector baskets or common funds (*fundos comuns*). Expenditure financed by these common funds is, so far, always shown as externally financed expenditure, organised in projects and therefore classified as investment expenditure.

e) Until 2008, the functional classification was derived from the institutional classification. Therefore, since subfunctions within a single institution cannot be distinguished through the institutional classifier, any subfunctional classification of expenditure could be, at best, very crude.

Budget execution

Until mid-2006, budget execution and accounting procedures were essentially manual, with some electronic processing for some steps. Ministries always accounted for their spending to the DNCP of the MF on paper.

In the beginning of each year, spending units opened annual bank accounts with the central bank or the closest commercial bank, on which they received two-twelfths of their annual budget as initial advance. After each month, they had to send summary sheets (*balancetes*) to the DNCP of the MF to justify the month's expenditure. Upon acceptance, the treasury replenished the spent amount upon instruction by DNCP. In theory, it was possible to deviate from the scheme by way of presenting a cash flow plan to the treasury. In practice, hardly any institution did so. At the end of the year, the balances of the bank account had to be returned to the treasury, and the account had to be physically closed.

This system, called *sistema de duodécimos*, was rightly criticised because it very often resulted in significant underspending if spending in the initial months of a year was low, often because the treasury didn't transfer the initial tranche in time. The system's mechanics made it virtually impossible for a spending unit to make up for initial delays during the rest of the year. Furthermore, the thousands of advance accounts proved difficult to control, and absorbed large amounts of liquidity, particularly in the beginning of a budget year.

Since mid-2006, this system has been replaced by an integrated and electronic payment, accounting and reporting system of the IFMIS type, referred to as e-SISTAFE. By the end of 2007, most spending units at central and provincial level were online. Physical bank

accounts are now replaced by virtual bank accounts within the Single Treasury Account (Conta Única do Tesouro; CUT). Most spending units still have physical bank accounts, but these do not hold large balances since they are transit accounts where direct bank transfers from the CUT to the supplier is not possible yet. Spending units initiate payment of suppliers via bank transfer directly from their computers within the limits of (virtual) cash allocation. Financial planning and cash flow plans have fully substituted the rigid *duodécimo* system.

Although many traditional project funds continue to be managed outside the e-SISTAFE, most common funds are now administered through e-SISTAFE (essentially beginning in 2008).

It is worth noting that the MF initially retains a 10 percent contingency reserve from approved allocations, called *captivo.* This reserve is meant as a precaution for situations of a significant shortfall of revenues, unplanned additional expenditures, and the like. The *captivo* can be made available to the spending unit during the course of the year if no special circumstances require budget adjustments and if the spending unit is executing its budget to its limit.

Off-budget items

Traditional development projects and common funds have, for the most part, been included in the OE that was presented to and approved by the Assembly. Regulations with regard to exemption from import duty and value-added tax (VAT) for donor-funded projects made their inscription into the budget mandatory, which gave an incentive for donors and sectors to report these projects.

However, coverage in the financial statements was much lower, since reporting standards and procedures for funds administered differently (compared to spending against internal revenues) resulted in a low, albeit growing degree of data capture in the provisional and final financial reports. Gradually, recording is being improved, but also more projects are still being included in the budget.

Very few externally funded projects allow funds to go through the CUT. This has also been true for sector baskets (like ProAgri), for which parallel mechanisms were used. Since 2007, however, most of the common fund arrangements are fully on-budget and on-CUT and, therefore, automatically are captured in the financial statements.

In 2006, a new tool called ODAMOZ came into operation. In this Web-based database, donors record their projects and financial contributions (also for general or sector budget support and basket funding). Originally set up for European Union (EU) members, there are now many more countries participating. Due to technical problems, the database contains some annoying errors that make it difficult to use aggregated totals. Since the perspective is different, it is often not possible to relate projects in the donors' definition to expenditure items in the OE. But ODAMOZ is useful in order to identify donor funds that are not included in the budget by comparing internal project lists of the MF with the information contained in the ODAMOZ database. Beginning from the preparation of the 2007 budget, donors and the ministries responsible for planning and finance have had various sessions for

this purpose, which have resulted in a significantly better coverage of the budget with regard to earmarked donor funds.[46]

Many sectors collect fees of which they can keep and spend significant shares. Over time, and particularly since 2005, efforts were made to include these as revenues and as expenditure in budgets and financial reports.

Decentralisation

Provinces are essentially deconcentrated wings of government. The central budget is subdivided into central institutions, and each province has its own budget subdivided by provincial directorates of each ministry.

The division of responsibilities between central and provincial level is not clearly regulated. The choice of the tier of government (central or provincial) where expenditures are inscribed in the budget and where the responsibility for accounting for the funds lies follows pragmatic lines. With regard to recurrent expenditure, all salaries and most goods and services are immediately inscribed in provincial budgets.

Up to 2008, funds to be spent at district level were inscribed typically in the provincial budgets. Decentralisation during execution took the form of the provincial directorate paying an advance to the district; the district had to account for the funds to the provincial directorate, which then submitted accounts to the Directorate for Planning and Finance at the provincial level.

For investment expenditure, different procedures are in use. Except for small maintenance and rehabilitation work, investment expenditure is still mainly decided at the central level, in the line ministry. The items can then be

- spent by the central ministry in favour of the province or district, or
- decentralised during execution by way of transferring expenditure authorisation from the central ministry to the provincial directorate, or
- inscribed directly, at budget preparation time, in provincial budgets upon initiative of the central ministry.

Since 2006, districts have become spending units in the financial management system. The initial recurrent budget allocation was only for the functioning of the purely administrative functions (for the district secretary). Efforts are under way to decentralise funds for sector-related activities in the near future.

With the budget for the year 2006, a new budget line for local-initiative local investment was created for each district under the category of investment expenditure. This decision followed many years of preparation of district development plans in various parts of the country. The initial idea was to provide some funds for their implementation. For lack of other criteria, each district received an allocation of MT 7 billion (old), equivalent to about

[46] The database is accessible via http://www.odamoz.org.mz.

US$270,000 at that time. This budget line for local investment is therefore often referred to the "*sete milhões*," the official denomination is "Investment Budget (line) for local initiatives" (OIIL).

Although initially meant for public investment at the local level, the policy orientation was changed in the first months of 2007. Contrary to all guidelines that had been issued and that had specifically instructed districts to use the funds on public goods, top politicians began to instruct districts to promote the production of food and creation of jobs rather than "wasting" the money on schools, health posts, road repair, water supply, bridges or markets. The scheme then turned into a credit scheme for small local economic activities. In theory, recipients have to reimburse the loans which they received, but in practice, repayment rates are very, very low. It is still unclear how the idea of a revolving fund will be implemented and how districts would have to treat funds that are reimbursed by the initial beneficiary.

It now appears that most of this investment funding at district level (OIIL) is being used to finance productive activities, mostly credit to farmers for agriculture production, marketing, processing, and storage. Episodic evidence (newspaper articles) often refer to hammermills for maize, tractors, oxen or loans for prospective chicken farms. Very little global monitoring of these projects is done on a timely basis. MPD planned to undertake an evaluation of the use of the OIIL funds in 2008, but it is still not available.

Requests for the attribution of OIIL funds have to go from the village/locality to the administrative posts (*posto administrativo*) to the district. Proposals have to be approved by local consultative councils that were created in accordance with the LOLE.

Reporting

The two main national reporting instruments are the PES Implementation Report (Balanço do PES, BdPES), issued by the MPD, and financial reports issued by the DNCP of the MF. The BdPES is annual, but there is a mid-year report covering the first six months of the year.

DNCP produces quarterly budget execution reports, which are published 45 days after the end of each quarter, and a final financial report for the year, called CGE. The CGE, produced by 31 May, is sent to the Assembly and to the Administrative Court (Tribunal Administrativo; TA) which fulfils the role of a Court of Auditors or Auditor General. The TA sends its report and its audit opinion to the Assembly by the end of November. Discussion in the plenary of the Assembly usually takes place in March.

Monitoring

In the context of general budget support, now provided by 19 donors, two major events take place each year. In March, the backward-looking joint review (JR) is carried out, which takes the BdPES report and the preliminary state accounts for the previous year as a starting point and verifies and complements the information. The review involves many sector working groups, where donors, government, and (to some extent) civil society take part. The results are published on the website of the Programme Aid Partners (PAP) under www.pap.org.mz. The work is guided by the PAF matrix, which contains some 46

indicators taken from the PARPA, but then is developed further in order to ensure updated target values and measurability. The annual comprehensive reviews of sector programmes take place just before the JR so that the sector-level results can feed into the overall assessment.

The smaller mid-term review, which takes place in September, produces a less intensive review of the first six months of the year, while focusing on agreeing on the PAF matrix and indicator values for the following year.

It is worth mentioning that the cycle of reviews is now well aligned to the government's planning and budgeting cycle, but it has not always been. The review cycle ensures that preliminary donor commitments for general budget support and sector programme support are available by about mid-May, just in time to feed into the finalisation of ceilings for the preparation of the budget at sector level. The mid-year review comes after the sectors have submitted their proposals for the PES so that the overall PAF matrix can be aligned to sector plans and targets. Donors are expected to reconfirm their commitments by the end of August so that the final budget proposals, submitted to the Assembly by end-September, can be based on realistic assumptions.

3. PLANNING AND BUDGETING IN THE MINAG

Strategies

In addition to the Government Programme (PQG) and the PARPA, most big and strategically important sectors have prepared their own medium-term strategies which, at times, include medium-term spending plans. For the agriculture sector, the basic document was the ProAgri I strategy (2000–04) and ProAgri II strategy (ongoing). The ProAgri II strategy, however, proved to be difficult to operationalise because it was more a vision document for agricultural development (including upstream and downstream activities that are outside the responsibility of the MINAG). Different additional strategic documents therefore serve to operationalise the vision.

The most recent document of this type is the **PAPA**. This three-year plan was prepared in the sequence of the Green Revolution Strategy approved by the Council of Ministers in November 2007 and as a response to the soaring prices for basic commodities such as rice, wheat, and maize on international markets. The main objective of this action plan is to reverse the deficit of main food commodities in the next three years and reduce the dependency of the country on food imports. This action plan is multisectoral and foresees investments in agriculture production, storage, marketing, and processing, as well as fisheries. The action plan focuses on eight selected commodities, namely maize, rice, wheat, cassava, potato, oilseeds (sunflower, soy beans, and groundnut, with the objective of reducing vegetable oil imports), chicken, and fish, selected on the basis of an assessment of the country's food balances and potential to grow additional staples to narrow import requirements. This plan is considered a high priority by the president and the government and is reflected in the MTEF 2009–11. It foresees significant increases in public expenditure

on agriculture and also a significant increase of its share on total public expenditure. The PAPA supplements and in some areas supersedes earlier strategies of the agriculture sector.

MINAG is currently preparing a **PEDSA** that will be above the PAPA and cover a longer period.

These, and the earlier strategic plans provide the orientation under which the PES are prepared.

Annual planning and budget preparation

Since the inception of ProAgri in 1999/2000, the MINAG structures prepare annual activity plans named PAAO**.**[47] The exercise was supported at first by a software named "Financial Planner." It has been replaced by a specific software developed in-house, called SISPLATA, first used for the preparation of the 2006 PAAO.[48] This annual work plan allows to plan relatively detailed activities related to the core functions of the ministry and to link these to a budget (activity based budgeting). These activities are linked to specific components and subcomponents of the sector programme, ProAgri, which constitute, de facto, a parallel quasi-functional classifier (extension, research, livestock).

In the early years of ProAgri, the PAAOs were the primary instrument through which provinces and districts, as well as the central-level directorates and subordinated institutions of MINAG, established their claims for funds stemming from the ProAgri common fund. As an inevitable consequence, the PAAOs requested sums that were well in excess of what could realistically be made available. In recent years, provinces and districts are given ceilings into which they are expected to fit their activities and spending plans. Still, PAAOs tend to be prepared under a "needs" perspective rather than a plan about how to spend the few funds that will actually be available.

The planning software has been revised in 2005 to simplify and standardise the list of possible activities that all units can choose from when preparing their plan. It also obliges the planner to indicate the expected output for any activity and its associated cost. This also allows comparison between management units in terms of totals for certain activities but also in terms of unit costs. However, a sizable amount of the spending planned in the PAAOs is not attributable to a specific component and is therefore classified as common expenditure (*despesa comum*).

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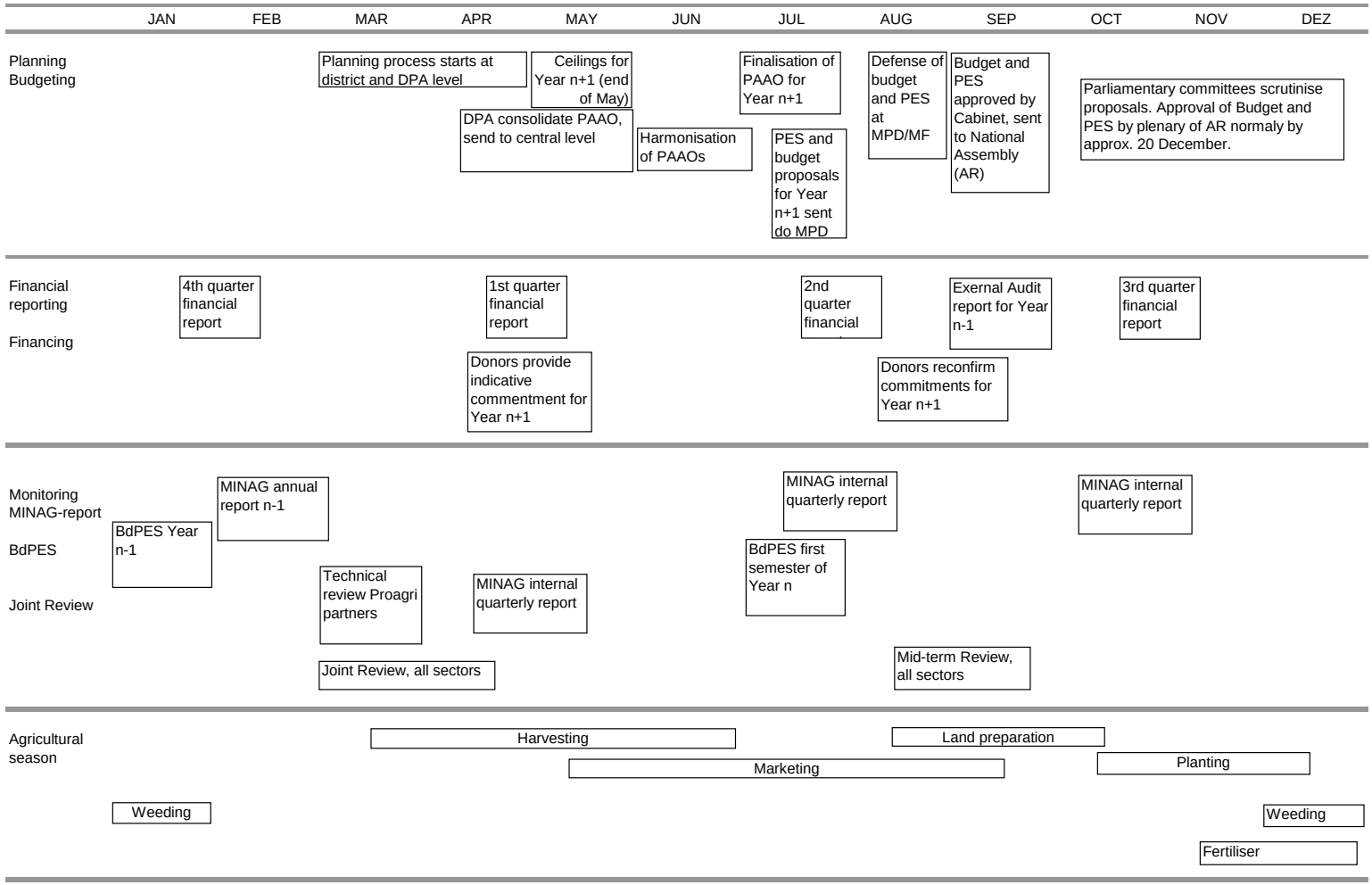
[47] See Figure 2 for an overview of the sequence of the different steps.

[48] One crucial difference is that SISPLATA limits the possibility of naming activities to a standard pick-list. Thus, it became possible to aggregate plans over provinces or components.

Figure 47: The planning, budgeting and reporting cycle in Agriculture



NB: The cultivation period varies within the country, starting earlier in the South and later in the North of the country.

The preparation of the PAAO starts at the local level in February, when agricultural district services (or economic activity services, as they are known now) compile a list of activities that they would like to implement during the next fiscal year.[49]

In May, the DE (in charge of policy, planning, monitoring, statistics) of MINAG circulates the planning instructions for the next fiscal year as well as *external* investment budget ceilings to all DPAs.

Procedures for communicating ceilings for recurrent expenditure and *internal* investment expenditure were changed in 2005 (for preparation of the 2006 budget). From about 1998 until 2005, provincial ceilings for sectors with formal sector programmes were proposed and negotiated by the central-level line ministries. Provincial directorates sent their respective proposals to the central ministry which, after consolidation, presented and defended them vis-à-vis the then Ministry of Planning and Finance as one package. Since the preparation round for the budget 2006, the MPD determines ceilings for the entire province, covering all sectors, and the Governor, in cooperation with the Provincial Directorate of Plan and Finance, distributes these further to the sector directorates. Provincial directorates present their budget proposals to the provincial-level planning and finance directorates.

By the end of May, districts send their activity plans to the provincial level, which revises and harmonizes them, aggregates them, and then includes its own activity plan and budget.

At central level the provincial activity work plan and budgets requests are received in late June, early July. These are reviewed, harmonized, aggregated and added to the central level plans and budgets, and submitted to MF and MPD to the extent that central funds are required for their implementation. Spending units in general and districts in particular are not systematically informed of the revised version of their budget proposal, as it is integrated in the sector's central-level proposal.

While a bottom-up process is commendable in principle, in practice there are several opportunities and also needs to adjust requests made from the lower level, as these are consolidated and passed up along the chain. Inevitably, tensions arise between national priority programmes and local-level development priorities and operational urgencies. This is related to the fact that MINAG operates a vertical sectoral fund whereas, and increasingly so, districts also have local level priorities that have been expressed in district development plans (see decentralisation).

Preparation and finalisation are frequently late, and delays at various levels tend to accumulate. There is usually very little time to perform quality checks on the PAAOs, their internal consistency, and compatibility with the proposals for the PES and budget before

[49] Until 2006, agriculture, as well as some other important sectors, was presented locally through district directorates. In 2006, the administrative structure at district level was simplified, and the double subordination was abolished. Agriculture activities are now carried out and coordinated by a District Economic Service (Serviço Distrital de Actividades Económicas; SDAE), which also covers fisheries, tourism, commerce and industry, and mining. The district services report to the district administrator, and no longer to the respective ministries.

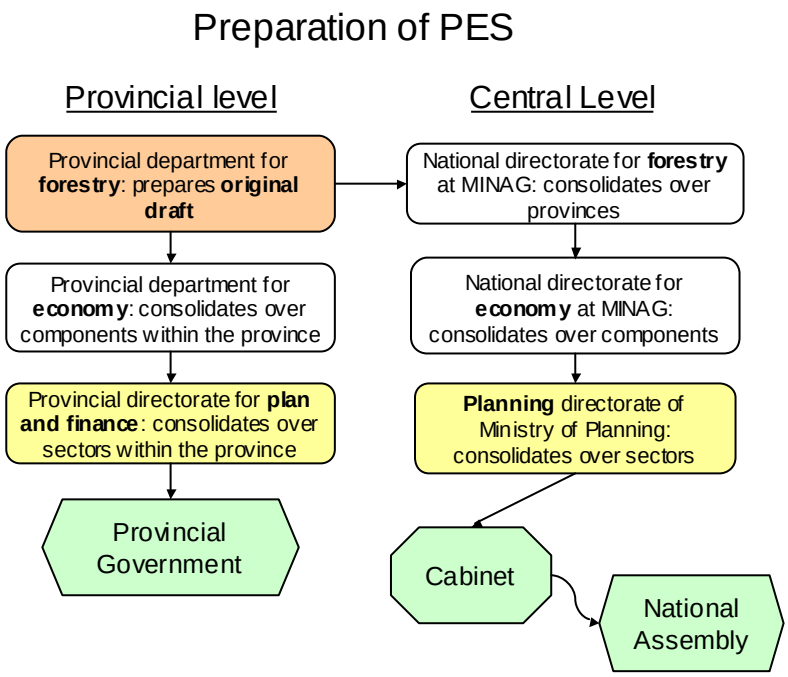
MINAG submits its proposal to MPD/MF at the end of July. Typically towards the end of July, though, an enlarged consultative council meeting takes place in which representatives of the provinces and donors participate, in order to validate the first draft of the budget proposal and to make adjustments.

Yet, the probability of making last-minute mistakes is also high. This period also coincides with the preparation of the first semester PES report, which also needs to be submitted by the end of July, therefore adding to the burden of work of a small team in the planning directorate (DE).

Beginning from 2006, MINAG has introduced the distinction between "core functions" and "development projects." This distinction is potentially useful because the core functions are generally routine activities for which the intensity can change, but that need to be fulfilled in one form or another. The development projects can be seen as distinct, temporary measures designed to have a particular and monitorable impact. The dark side, however, is that the development projects are planned outside the SISPLATA software (and therefore do not appear in the PAAOs) and that this category does not appear in financial reports issued by the MINAG's financial system.

Although the budget proposals of the provincial and central level and the sector's PES submissions are based on the PAAOs, the consistency of the budget and the PES is far from ideal. The elements of the PES proposal are prepared by MINAG's technical departments at the provincial level, with a certain degree of consultation with district staff. The technical proposals are then sent to (a) the provincial-level department of economics of the DPA and (b) to the technical directorate of MINAG at the central level. Both consolidate proposals. The technical directorates at MINAG central send the consolidated version to the central-level DE, which merges it with proposals from the other directorates for final submission to MPD. Provincial DE's also consolidate the proposals prepared by the various technical departments into one proposal that is submitted to the provincial-level Directorate of Plan and Finance. The national PES is then put together by MPD, while provincial PESs are prepared by each province for submission to and approval by the provincial government. Given the procedures, frequent inconsistencies are not really a surprise.

Figure 48: Preparation and consolidation of the PES (Example)



Source: AgPER Team.

Note that provincial-level institutions usually send the documents that result from each step on the left side to the relevant central institution that aggregates over provinces. However, these documents are for information, and no systematic harmonisation takes place.

The first technical drafts are prepared without much consideration of availability of funds. In the course of the consolidation exercises, budget proposals tend to be adjusted to the available resource envelope, but often no parallel adjustment of the PES targets take place. Therefore, it is not surprising that budgets often turn out to be insufficient for reaching the various targets contained in the PES proposals. Furthermore, consolidation of the PES proposal at national level tends to result in complete elimination of the regional dimension; only national targets, without breakdown by provinces, remain.

The next step in the process is the finalization of the plan and budget proposals at the MPD/MF level. During the month of August, the line ministries are called to defend and negotiate their proposals. Planning directorates of line ministries are not informed of the final version that MPD/MF sends to the Council of Ministers first and then to Parliament. Although ministers always get a copy of the version discussed at the Council of Ministers meeting, they often do not pass it on to the responsible department.

In the past, some errors have occurred when the MF transcribed MINAG's budget proposal manually into the overall budget proposal to be sent to Parliament. Since 2007 (for the 2008 budgets), sectors themselves input the data into a new budget preparation module of e-SISTAFE. While this eliminates the possibility of wrong transcriptions, other errors appear when sectors and provincial directorates make erroneous inputs (often of the type of

inputting Meticais instead of thousands of Meticais). Some of these errors are not detected in time.

Since 2006, the PES and budget proposals that MPD and MF send to the Assembly are made available publicly on the Internet. Although the proposal can still be changed in the course of analysis in the Parliamentary Commission and even by the Assembly itself, any changes tend to be small.

In January, MINAG and other ministries receive a copy of their approved budget. Before the roll-out of e-SISTAFE, it was only at this moment that the extent to which final budgets remain below the original proposals was revealed. The planning directorate then applied these shortfalls vis-à-vis the initial proposal across units, and informed them of their revised total, broken down along the economic classifier (*tabela de despesa*). As this takes some time; some provinces and districts only got their revised budgets in March. Only then can some reprogramming take place, but this is often too late with respect to the ongoing agricultural season.

With the advent of e-SISTAFE, cuts become apparent much earlier. But as a rule, they are not incorporated into the subsectoral planning and budgeting instruments. Therefore, the PAAOs and budget allocations to individual directorates or departments, i.e., broadly by function, tend to become obsolete at this moment to the extent that the initial planning was done without due consideration of expenditure ceilings or when the final allocation to the sector falls short of the initially allocated ceiling.

Since the introduction of the new planning software SISPLATA, provincial and technical directorates are expected to prepare PTAOs, which are more detailed than the PAAOs and take the actual approved budget amounts into account—in theory.

Sources of funds

As was mentioned earlier, the budget specifies the source of funds for each expenditure, and makes a clear distinction between (i) internal resources (*Fundos de Tesouro*), which represent general revenues of the state plus general budget support, and (ii) external resources, which are earmarked and tracked and which can only finance activities contained in projects.[50] In the case of pooled funds in a common fund arrangement, the detailed budget in e-SISTAFE shows the ProAgri common fund as a funding source. For traditional projects, the donor is shown.

In addition to these general and specific funding sources, expenditure can be financed through own revenue (*receitas próprias*) or earmarked revenue (*receitas consignadas*).[51]

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[50] As mentioned earlier in this annex, "project" needs to be seen as a budget management tool rather than a temporary set of activities. In particular, project activities and expenditure do not necessarily have to relate to capital spending or to special, nonroutine activities.

[51] Although traditional project funds are also earmarked, they appear as external funds, and the term earmarked revenue is not used in this context.

The difference is that own revenue are earmarked for the institution which collects the revenue, while earmarked revenue go to a different institution. These revenues constitute a substantial part of the funds that are available for the agriculture sector. How revenues are treated is regulated by law or decree, and the distribution depends on the type of revenue. Forestry licenses and fines constitute one major source of such revenue. In this case, 6 percent of the collected revenue goes back to the provincial directorate for agriculture that collected the fee, 20 percent are reserved for local communities in the vicinity of the forest resource, 37 percent become general treasury funds, and 37 percent become earmarked revenue for the FDA. There are other specific revenues like the land tax, or the cotton and cashew export levies. Export levies, collected by Customs, become earmarked revenue for the two specialised institutes. A peculiar case is local procurement of vaccines for animals. Some of these are produced by the IIAM, but the provincial directorates pay for them. Even this is considered as own revenue of IIAM, of which they can keep a certain share, while the remainder becomes earmarked revenue for the FDA (see below).

Rules have changed over time, as have procedures. Previously, the provincial directorates paid the revenues that they collected and declared directly to the FDA's bank account. Nowadays, the revenues have to be surrendered to provincial-level directorate for plan and finance (Direcção Provincial do Plano e Finanças; DPPF)[52]; after they are booked into e-SISTAFE, the spending limits of the beneficiary institutions are raised. This ensures far better records than under the old rules.

The FDA is an institution with financial and administrative autonomy supervised (*tutelado*) by MINAG. Its chief executive is appointed by the minister of agriculture, as are the members of the board. Its income (approximately US$11.4 million in 2007, annual report) consists of earmarked revenues generated by the sector (licensing fees for forestry, inspection fees for livestock, seeds, forestry and hunting fines, land taxes, and levies on tobacco). Its policy is to spend no more than 35 percent of its budget for operational costs (it has a staff of approximately 100), and 65 percent for the development of various projects.

The activities financed by the FDA remain generally outside the normal planning cycle of MINAG, and arise from provincial requests or requests from individuals. In principle, the fund has a programme, but its very nature allows it complete and in-year flexibility on the choice of projects. Recently, clearer guidelines have been established that prohibit the FDA from providing guarantees for commercial bank loans, funding investments in tobacco, cotton, or sugar sectors. Its aim is to support smallholders and associations with credit for horticulture, and rice production; livestock; fruit production; poultry, including agro-processing equipment and agricultural machinery on a leasing basis; and so on.

Unsurprisingly, there are important differences between what is planned and what is finally financed and implemented. While the FDA produces an annual report, this contains only aggregated financial information. Detailed financial information is not shared with the ministry's financial department, because of the independent (autonomous) legal set-up of the FDA (*instituição tutelada*).

[52] Until 2005, there was a ministry for plan and finance. Planning and finance were split in 2005, but at provincial level, there continues to be one single directorate which combines the two functions.

The FDA, as a recipient of a large share of revenues collected by MINAG and its provincial directorates, did not appear in budgets or financial reports up to and including the year 2008. Transfers of earmarked revenues to the FDA appeared as unspecified transfers to public institutions, because the FDA has financial autonomy and is audited separately. The FDA will, however, be on-budget and on-reports from 2009 onwards.

A fund similar to the FDA exists in the fisheries sector (Fisheries Fund). Its operations are reflected in budgets and financial reports, and it concentrates most of the revenues generated by the sector, including fishing licenses and fines. It also implements virtually all investment projects of the fisheries sector.

GPZ has always been on budget, since it is financed entirely from budget resources. It was created in August 1995 with administrative and financial autonomy. Its main task is to coordinate development efforts in the Zambezi Valley.

Planning and budget preparation issues

The main issues that prevent expenditure plans from being relevant and aligned to objectives and targets are

- the disconnect between PES preparation and budget preparation, mainly due to the different ways in which they are aggregated and consolidated;
- the frequent preparation of PAAOs under the perspective of gaining access to funds, rather than as instruments for detailed planning of funds that have been attributed; and
- the difference between the agricultural and the financial year.

The fiscal year runs from January to December, whereas the agricultural season runs from October to April, with the corresponding marketing season from May to September. This implies that funding for any agricultural season must be split over two fiscal years. Doing detailed planning for the marketing season and the first half of the growing season more than 18 months in advance makes it virtually impossible to learn from the results of one season for the benefit of the next.

Taking into account that the time lag between the planning process and actual implementation can be quite long, and taking into account also that an approved plan changes several times during the year, another concern is that a lot of time is dedicated to the planning process, to prepare a very detailed plan, which is going to be implemented only partially. The planning document (PAAO) is very detailed, but many of these activities are not implemented because of the time lag between planning and implementation, and other activities are funded instead.

It is obvious that the PAAO, in its current format, is a far-too-detailed planning instrument for it to remain relevant some 18 months after its preparation, even if the envelope adhered strictly to realistic ceilings.

The PES concentrates on predicting agricultural production, and is very specific about some selected activities of the public services, but provides, in its present format, rather little

information about the expectation about how public services will contribute to production and income derived from agriculture. The attribution gap is too wide. Furthermore, the annual PES generally looks only one year back, and not beyond the following year. It is not a strategic document, but a purely annual exercise.

Given these deficiencies, it is not obvious at all how annual plans will be linked with annual budgets in a medium-term perspective. It is also not obvious how the MINAG can ensure that policy and priority changes will find their way into the pattern of budget allocations and spending.

4. BUDGET EXECUTION IN MINAG

Procedures

Up to 2006, budget execution in MINAG followed the general budget execution rules for recurrent and internal investment expenditure, subjected to the *duodécimo* method.

However, special rules applied to funds channelled through the ProAgri common fund. The procedures, known as the Common Flow of Funds Mechanism (CFFM), are laid down in detail in the Memorandum of Understanding (MoU) between MINAG and sector donors. Donors paid their contributions into a Forex account held by the MF at the Central Bank (Banco de Moçambique). The MINAG then requested MF to transfer to its special ProAgri accounts, from which they were transferred to specific provinces or to central-level institutions. Funds to provincial directorates of agriculture were transferred to the DPPF first. Before the single treasury account (CUT) became operational, funds were transferred to the spending unit's bank account.

Nowadays, funds are transferred from the Forex account to the CUT, and the virtual account of the spending unit is then credited.[53]

ProAgri funds are made available quarterly, a rule that has applied since the beginning of ProAgri, thus deviating from the normal *duodécimo* rules. The CFFM has enabled the MINAG to have a more comprehensive picture of available resource for the sector and it has given MINAG more discretionary authority over the allocation of resources. Thus, budget execution was more flexible than it would have been under normal rules, while the role of MINAG was, obviously, greater than in the case of traditional projects with funds usually out of direct control by MINAG staff.

An important instrument in budget execution is the so-called expenditure table (*tabela de despesa*), which shows authorised expenditure by economic classification for a defined spending unit. For MINAG, the spending unit is either the entire ministry or a provincial directorate. MINAG, similar to other sectors, subdivides the amounts internally by creating

[53] This "virtual account" can be looked at as a drawing right of the spending unit against the Single Treasury Account.

expenditure tables for the different technical directorates. It is important to note that each project has its own expenditure table and is therefore treated almost as a spending unit itself.

During much of the period of analysis, until mid-2006, the procedures as described in the previous subsection frequently resulted in accumulated delays particularly in the beginning of a year, and often in systemic underspending.

The Assembly gives government considerable flexibility to redistribute budget allocations across types of expenditure, across projects within the same institutions and also across similar institutions. However, a written request to the MF (central level) or DPPF (provincial level) was required. Redistributions were allowed only three times per year. Redistributions had to be authorised also if only minor subcategories of the type of expenditure were involved. With SISTAFE and subsequent clarification of the degree of detail of *binding* budget items, this has changed. Now, the budget allocation is defined by broad categories such as "salaries and other personnel expenditure" or "goods and services" or "capital goods." Consequently, the spending units have great freedom, possibly too much because, for instance, they can freely redistribute funds that were meant for maintenance to other types of expenditure within the category of "goods and services."

As far as funds from the ProAgri common fund are concerned, MINAG prepares, for its external investment, a treasury plan for quarterly transfers to all budget management units, with quarterly allocations based on the expenditure rhythm derived from the annual work plan and budget. MINAG donors that contribute to sector budget support also prepare a disbursement table, by quarter, indicating which donor is going to disburse how much in each quarter.

Special rules apply and particular problems arise with regard to donor funds that were disbursed in one year but not spent. According to the MoU, unspent balances are to be carried over to the following year. At the same time, it is clear that spending authorisation expressed in budgets are only valid for the current year and can *not* be carried over. Therefore, in principle, unspent amount of one year should be available immediately for meeting expenditure that is budgeted and authorised for the following year. However, the treasury often did not distinguish funds from expenditures and insisted that MINAG should request authorisation for additional expenditure of the amount of the funds to be carried over. Changing a budget in the first weeks after its approval by the Assembly is not good practice, obviously. Therefore, the process was delayed often until the second quarter. With the advent of e-SISTAFE, the distinction between funds and spending authorisations is clearer. It is to be seen whether the transition of balances will work smoother now.

Other institutions such as the FDA receive their funds at irregular intervals throughout the year, according to the amount and timing of revenues generated.

In summary, the introduction and roll-out of e-SISTAFE has solved many of the problems in budget execution that existed during the period through mid-2006. But there are still delays, due in part to delays in closing the previous year's account (unresolved irregularities, insufficient documentation, delayed procurement processes), but also to the inefficient flow of information and requests, primarily between the provinces and MINAG

and MF. Because of these various factors, the timely release of funds remains a problem, especially in the first quarter of the year, which is a crucial stage of the agricultural season.

Financial reporting

In the context of the CFFM for the ProAgri common fund, MINAG has developed its own accounting system, called Arco-Iris, which supplements the public accounting system. Arco-Iris is structured by components of the ProAgri Programme and includes subordinate institutions (except the FDA) and provincial spending. Arco-Iris captures expenditure that is managed by MINAG. Therefore, it does not contain information about project spending administered by the respective donors or controlled by special management units.

Arco-Iris was designed as a electronic front end for an essentially manual general accounting system. Arco-Iris produced the tables that MINAG had to submit to the Public Accounts Directorate, in the required structure and detail. Thus, there was a certain guarantee of synchronization between MINAG's internal accounts and the public accounts, albeit only with regard to flows managed by MINAG. With the advent of e-SISTAFE, Arco-Iris has become a parallel accounting system, requiring a second process of data input and manual reconciliation with the e-SISTAFE accounts.

On the basis of more detailed accounting information drawn from Arco-Iris, MINAG issues quarterly Financial Management Reports (FMR), which provide information on spending of the MINAG budgets within six weeks after the end of the quarter. These reports are cumulative in the sense that the third report will provide information for the first three quarters of the year.

There are usually some differences between figures provided by MINAG in their FMR and the quarterly budget execution reports (Relatório de Execução do Orçamento do Estado**;** REOE). This is due to the fact that REOE also includes aggregated data in the agriculture sector on recurrent and internal investment budget of GPZ, of DNPDR, and of the MP and its institutions. Differences also stem from the inclusion of separately managed projects in the REOE and CGE that are not captured by Arco-Iris.

In the past, differences were also due to the fact that provincial directorates of planning and finance did not always report to public accounts the amounts that have been justified as spent by the provincial directorates of agriculture against sources of the ProAgri common fund. As a result, these amounts, which were substantial, were reported as advances that still need to be justified, whereas they appeared as disbursed and accounted for in MINAG's financial management system. After the roll-out of e-SISTAFE, this should be an occurrence of the past.

The quarterly REOE reflects what has been booked into the public accounting system until the end of each quarter. Public accounts do not run any additional checks or reconciliations with sectors at the end of a quarter. Therefore, these quarterly reports only reflect what has been booked, and at times contain errors that are likely to be detected and corrected at a later stage when accounts are reconciled.

There is an additional external audit of MINAG funds performed by an external audit company. This audit is a necessary document for many donors that finance the sector. It is usually released in October of the year that follows the year that is being audited, since the audit company cannot start its work before the accounts have been closed, which can take some time.

5. MONITORING AND REPORTING

Annual monitoring and reporting on performance is done through the national instrument of the PES implementation report (BdPES) which also serves as implementation and monitoring report for the poverty reduction programme PARPA. In addition to the annual BdPES, there is a mid-term implementation report, covering the first six months of the year. The deadline for submission to Parliament is 45 days after the end of a semester.

Additional monitoring instruments of regular use are the sections on agriculture in the annual JR (in March) and the mid-term review (in September). In addition, MINAG produces an annual performance assessment report that is presented to the ProAgri Partners Group. Many of the technical directorates of MINAG produce their own annual reports which typically serve as a basis for annual meetings of each technical wing.

Particularly in agriculture, the quality of the information contained in the BdPES has repeatedly been criticized because a large part of the document reports on production figures of the economic agricultural sector, while it is not very clear what and to what extent the public services contributed to the development. Information about performance of the ministry or on the implementation of MINAG's policies is dealt with only briefly, if that.[54] MPD guidelines instruct MINAG to choose a few policy statements and provide some quantified activities that fall within these.

The internal procedures for preparing the PES Implementation Report are the same as for the preparation of the PES: each technical department of provincial directorates prepares its input, sends it to the technical directorate of central-level MINAG, which consolidates and aggregates the information to send to the DE, which then produces the sector's submission to the MPD. In the aggregation process, provincial details and specificities tend to disappear.

There have been recent attempts to improve the quality of the PES at the MINAG level, in particular providing a more comprehensive list of performance indicators and targets for the ministry, disaggregated by provinces, but these changes were not taken up by MPD.[55]

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[54] For instance, the BdPES reports extensively on sugar production by sugar estate, although public services do not contribute to the sugar sector.

[55] MPD, in informal discussions, invited MINAG to suggest a better and more informative format of the PES report. It is unclear, actually, who is blocking the change here.

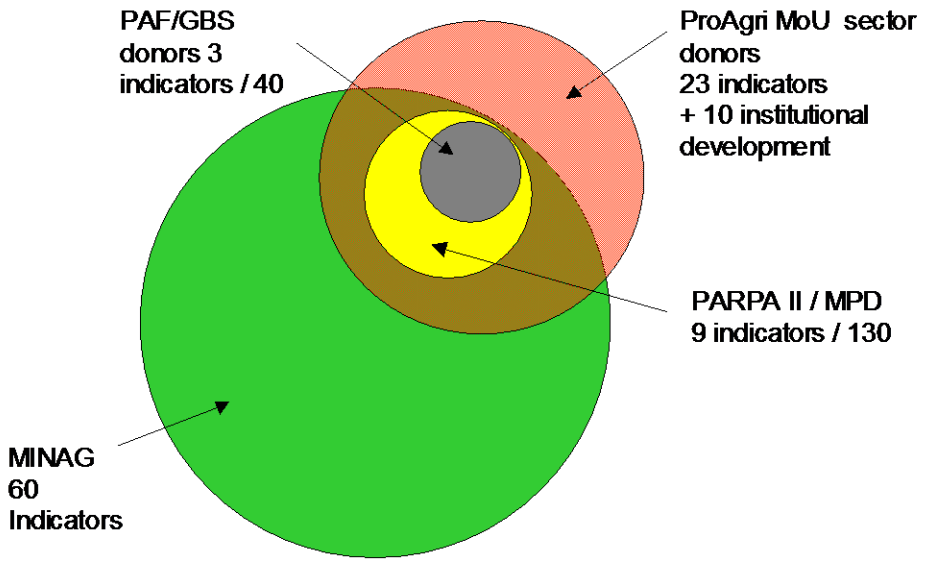
One notable improvement over the past five years was the introduction of the PAF indicators, devised in dialogue between donors providing GBS and MPD/MF, with inputs from certain priority sectors. These include three to four indicators for the agricultural sector, as a priority sector under PARPA.

Obliged by the MoU, MINAG also produces an annual performance report. There is potentially considerable overlap between the BdPES and the annual report, but as long as the ministry has to report more comprehensively to sector donors than it does to MPD and the Assembly, there will be a need for both reports.

MINAG's annual report contains a longer list of indicators and targets, and is used by sector partners and the ministry to assess the performance of the previous year. This assessment includes the degree to which the plan and its targets were implemented, as well as budget execution and financial management aspects. Also covered are institutional reform issues, which are more internal and do not appear in the BdPES.

The performance report also reports progress against a wider list of indicators, the so-called MoU matrix. This matrix, which is annexed to the MoU for the ProAgri common fund, contains 33 indicators, of which only three to four have transited to the PAF matrix used for monitoring progress in the context of general budget support. The performance report feeds into the JR of the PARPA and its implementation, and also into the annual review exercise of the ProAgri Partner Group with the MINAG.

Figure 49: Hierarchy of Performance Indicators in the Agricultural Sector



Source: AgPER Team

Note: The first figure indicates the number of indicators from the agricultural sector, while the second refers to the total number of indicators used in that reporting system.

ANNEX 2: INSTITUTIONS, CLASSIFICATION SYSTEM, DATA SOURCES AND TABLES

1. Public institutions in the agriculture sector

1.1 Central government administration

The **MINAG** is the main public sector institution in the agriculture sector. It is mandated with directing, planning, and implementing government policies in matters related to land, agriculture, livestock, forestry, wildlife, and irrigation. From 1994 to 1999, this also included responsibility for fisheries (MAP), until the creation of a separate MP in 2000. Responsibility for rural development activities has also shifted over time, as they were entrusted to a separate institute (INDER) between 1994 and 1999, before being incorporated into the MADER between 2000–04, and subsequently transferred to the MPD created in 2005 as part of the ministerial reorganization that followed the election of a new president in late 2004.

The current organizational structure of MINAG was approved in 2005 following a process of institutional reform of the ministry and prompted by the change in government. MINAG's **central structure** currently comprises, in addition to three ministerial support departments (general inspection, department of international cooperation, documentation and information centre), four main national technical directorates (agrarian services, extension, land and forestry, veterinary services) and three other directorates (economy, human resources, administration and finance). Six subordinate institutions of MINAG cover, respectively, agronomic research, support to specific commodities (cashew and cotton), promotion of commercial agriculture, cartography and remote-sensing, training in land administration, and mapping. Central level staff currently totals 1,234 employees (606 employees in MINAG's main central structure and 628 in subordinate institutions), out of which 966 are civil servants and 268 contractual staff. In the various **provinces**, MINAG is represented through 11 DPAs with a total of 5,073 employees (4,003 civil servants and 1,070 contractual staff) at both provincial and district levels, bringing the total number of MINAG staff to 6,307.[56] The DPAs report both to MINAG and to the provincial government administration, in a system of dual subordination. They support the activities of a total of 128 district directorates of agriculture, which were moved in 2006 into a new department of economic activities placed within the district government administration's office.[57]

Institutional restructuring and capacity building of MINAG were at the centre of the agenda of ProAgri I. Institutional development became the main component of ProAgri I, with its

[56] One for each of the 10 provinces, plus Maputo City.

[57] SDAE. This department is mandated not only with agriculture-related functions but also with functions pertaining to the fisheries, industry and trade sectors.

cost share rising from nearly 15 percent at project appraisal to 43 percent at project close.[58] The areas where ProAgri I is often seen as having been the most successful is the development of a more comprehensive and integrated planning framework for public resources (both domestic and external) and, even more importantly, of an integrated and government-owned financial management system. Substantial improvements have been introduced in financial management procedures (such as the unification of procurement rules, consolidation of accounts, creation of provincial financial management systems, and external audits), as well as the development of decentralized planning and the increased share of provincial public expenditure. However, a closer look at the systems shows that these still have many and serious weaknesses. They provide insight into details, may be important to impose a consideration of costs in combination with activity planning. But problems to use aggregates of these systems failed—they are too partial.

Furthermore, the institutional reform has remained incomplete. The organizational restructuring of the ministry, which has taken place over the years, does not seem to have achieved a deep-reaching transformation of approach and functions of the ministry. The new MINAG structure may actually be heavier than before. In addition, there are some indications that the ministry might still be leaning towards direct intervention in the sector rather than acting as a modernized regulator and facilitator.[59] Persistent weaknesses in human resource management also contribute to a high turnover of technical staff, including staff trained in financial matters, in whose training great investment had been made under ProAgri I.

The **FDA** is an autonomous institution under tutelage of MINAG, which is funded from a share of the revenues generated by the agriculture sector (i.e. forestry license fees, land tax, levy on tobacco growing companies, various inspection fees, etc.). The FDA has remained so far off-budget, i.e., its revenues and expenditures are not recorded in the government budget documents. Today's FDA results from merging of two previously existing funds in 2006: the FFA and the FDHA. The FFA section has a staff of 53 employees. It finances development activities in agriculture, livestock, and forestry, through grants to other government entities mainly at provincial level and credit schemes to smallholders and associations. Data have been collected on the FDA as part of this AgPER.

The **MOPH**, through its National Directorate of Water (Direcção Nacional das Águas; DNA), has a mandate for water resource policy and management in the country. DNA operates through and oversees five regional water administrations that are in charge of managing water resources in a more decentralized fashion, by river basin, in their respective regions. Some public investments in large-scale irrigation projects (mainly Massingir Dam project) are under the purview of MOPH—whereas small-scale irrigation falls under MINAG's Department for Hydraulic Engineering (within its DNSA)—and they are included

[58] "Formulating and Implementing Sector-wide Approaches in Agriculture and Rural Development: The national ProAgri—Mozambique," Global Donor Platform for Rural Development, 2007.

[59] There was a reduction in the number of central level directorates (from 15 to 11) and subordinate institutes (from 11 to 7), but this was more than compensated by a considerable expansion in the number of departments (from 28 to 40) and units (from 49 to 76).

in this AgPER. Also in the irrigation subsector, the publicly owned **HICEP**, placed under the general oversight of MINAG, runs the large-scale Chókwè irrigation scheme.

The **MPD** houses the DNPDR, which was moved from MINAG in 2005. DNPDR is responsible for implementing Mozambique's Rural Development Strategy 2006–25. It has a staff of 96 employees and carries out rural development activities which relate mainly to the agriculture sector and used to be under the former MADER. These activities are included in this AgPER. Also within MPD, the National Directorate of Planning oversees methodological aspects related to the district level investment budgets (OIIL). DNPDR is also responsible for a project for the assistance to rural markets (PAMA). PAMA targets rural trade and marketing, but does not directly target agriculture. Therefore, it has not been considered as an agricultural project in this study.

The **MP** and its subordinate agencies (Provincial Directorates of Fisheries, Fishery Research Institute, Institute for Development of Small-Scale Fishery, National Fish Inspection Institute, Fisheries Fund) deal with all aspects related to fisheries. Total staff is 1,353 employees, out of which 688 are at the central level including subordinated agencies, and 655 in the provincial directorates of fisheries. The fisheries sector generates significant revenues (e.g., fishing licenses, royalties, fish inspection fees, and quality control fees), part of which are returned to the sector. Corresponding revenues and expenditures are on-budget, with most revenues as well as management of investments in the fishery sector concentrated in the FFP.

The GPZ, with a total staff of 224 employees, has a broad development mandate in a major agricultural region of the country. In particular, its Division of Community Development implements several projects in the agriculture sector. These specific projects have been included in the AgPER.

The **National Disaster Management Institute** (Instituto Nacional de Gestão das Calamidades; INGC), under the oversight of the ministry of state administration (transferred from foreign affairs and cooperation in 2006), is involved in activities directly related to agriculture which include: (i) distribution of inputs on an emergency basis after natural calamities or disasters; and (ii) since 2006, implementation of specific agriculture and development projects in arid and semi-arid zones (e.g., construction of irrigation infrastructure, introduction of drought-resistant crop varieties). INGC is more generally involved in the rescue and emergency phases of disaster response including the provision of support (temporary shelter, food, etc.) to displaced populations that are victims of disasters. INGC has a core staff of 160 employees at central level, plus decentralized staff. Its basic operating budget (*funcionamento*, or recurrent) was increased substantially in 2007 (over sixfold above its 2006 level). Due to the very small amount spent on direct agriculture, its spending is not taken into account in this study.

Other government agencies have important roles in agriculture development. However, since their activities do not fall under the definition of the agricultural sector according to the NEPAD concept, their spending has not been taken into account. The **MIC** is responsible for the trade policy, including regulation of agricultural marketing. It supervises the ICM, the former marketing-board type institution, promotes rural trade, and will be

responsible for the construction and concessioning or operation of the silos that are to be built in the context of the PAPA.

The **MICOA** is the coordinating ministry of all matters related to sustainable use of natural resources and the protection of Mozambique's ecology and ecosystems.

1.2 Local government administration

Political decentralization in Mozambique remains limited. There are 11 provincial governments including Maputo City (which has the status of a province), but these are nonelected branches of the civil service, with governors appointed by the president of the Republic of Mozambique. Long-standing plans to establish elected assemblies in each of Mozambique's ten provinces were approved in November 2006, although elections have been delayed until late 2009. These provincial assemblies will play a limited, advisory role and can be dismissed by the government, subject to approval by the National Assembly.

Elected municipal government (*autarquías*) was introduced in 1998 for 33 major cities and towns as part of reforms to promote the decentralization of political authority. The creation of municipal governments in 1998 was intended to decentralize political authority and establish an elected and accountable local government in the remoter provinces.

Deconcentration of administrative functions and financial resources from the central state to the local levels (provinces and districts) has been taking place gradually in recent years.[60] A major thrust of ProAgri I was vertical deconcentration of MINAG resources—material, financial, and human. This was accomplished by building up MINAG staff, infrastructure (offices and housing), and equipment at provincial and district levels, rather than reducing staff at central levels. Financial resources have also been increasingly passed on from the central level to the provincial agriculture administration.

The LOLE, approved in 2003, establishes new principles and norms of organization, competencies, and functioning of the subnational state organs (provinces, districts, administrative posts, and localities).[61] A major aspect of LOLE is that the district level is designated as the basic unit for local planning and development. LOLE makes the district a planning and budgeting entity for the first time, with the responsibility to prepare budgets and expenditure proposals, and the ability to receive budget allocations. It recognizes district development plans as the principal instrument for planning and budgeting. LOLE also regulates community participation—through formalized district consultative councils—in preparing, implementing, and monitoring district development plans. These plans would

[60] Provincial and district governments are deconcentrated units of the central government. Rather than being elected by the local population, as the mayors and city councils of the municipalities are, provincial and district governments are appointed representatives of the central government.

[61] The structure of the state in Mozambique consists of two levels: central and territorial. At the central level there are ministries and related or subordinated institutions. At the territorial (subnational) level there are 11 provinces. The provinces are divided into districts (a total of 128), which are divided into administrative posts, and these into localities. On average, there are three administrative posts per district and four localities per administrative post.

also draw on inputs from consultative councils and forums at lower administrative levels, ultimately comprising representatives from every community.

However, despite the introduction of LOLE in 2003, districts have yet to assume the more substantial and more autonomous role in delivering public services as assigned to them in the law, which includes public services such as health, education, and agriculture. In part, the slow implementation of LOLE is caused by the fact that the law's regulations provide for a gradualist approach for implementing the law, without providing a specific timetable. In the absence of an explicit decentralization policy document, it is still unclear how the responsibilities should be transferred from the central level (line ministries) and the provinces to the district level. At present, plans and budgets continue to be made mainly by sectors or line ministries.

Incentives to participate in the district planning process are also undermined by the slow pace of fiscal decentralization to the districts. Except for limited discretionary funds available to district governments, most budgetary decisions on district spending are made nationally. Budgets proposed locally by the district government—drawing on the input of district consultative councils—are merely proposals that may be aggregated into a unitary budget at a central level, which is then submitted to parliament for approval. District planning and budgeting remains—at least at present—a mapping and priority-setting exercise where citizens and communities are asked merely to make suggestions.

1.3 The Local Initiative Investment Budget

Starting in 2006, the budget allocated funds directly to each of the country's 128 districts under the **OIIL.** In 2006, each district received an amount of MT 7 million (then approximately US$ 270,000), with some increase in 2007 and 2008 modulated among districts on the basis of population, size, and poverty criteria. There has been some confusion, especially at the beginning, about the scope of activities that could be financed under the OIIL budget. In May 2006, the ministries of planning and finance sent guidelines to all provinces laying out the role of this district budget—for social infrastructures and for projects for economic development—as well as broad regulations for its use, including compulsory participative consultation for its planning and monitoring. However, the use to which these funds could be directed was narrowed during the course of 2006 to focus uniquely on job creation and income generation, with an emphasis on food production, and disengaged from any capital investment for social or economic infrastructure. This concept has been implemented consistently since 2007.

The OIIL budget line is now used to provide loans to small-scale actors of the private and associative sector. Although these funds appear to dominate discussions at the district level, adequate management structures are still under development. So far, repayment rates are *very* low. Efforts are under way to institutionalise the revolving funds that are to receive amortisation payments if they occur.

Starting in 2008, districts received another amount for local-level investment. The amount, initially MT 2.2 million for each district, is earmarked for public goods, to be used at the discretion of the district. The funds are a partial revival of the original idea underlying the

OIIL. Due to the small size of the allocation, however, most of this amount is likely to be used for administrative buildings and their rehabilitation.

No robust information is available about the actual use of the "seven million." The use varies across districts, of course. However, episodic evidence from newspapers and interviews with people who have worked in rural areas strongly suggests that at least half goes directly to agricultural activities. Therefore, we assumed 50 percent of the allocation to be expenditure in agriculture.

2. Classification system

2.1 General structure

Expenditure allocated to institutions in the OE and financial reports is classified as either recurrent or *investimento* (investment). The latter is shown according to internal or external sources. By definition, there is no external financing of recurrent expenditure.

Internal sources are general or earmarked internal revenue and various fees collected by the institutions themselves, topped up by general budget support. External sources shown as a source of finance for expenditure lines are either donor contributions to sector-earmarked common funds or traditional projects.

The subdivision by recurrent and investment is, however misleading. Investment expenditure in Mozambique's financial management system refers to expenditure organised in projects. Many of these, but not all, have external financing. The term "project" is used essentially to specify a mode of management of funds in the budget. Projects often, but not always, coincide with donors' definitions in the case of traditional projects.

Project expenditure often contains current (as opposed to capital) expenditure, and in some sectors large amounts of these are also routine expenditure. Large items of capital expenditure is almost always shown under project expenditure and therefore investment. Salaries for permanent staff are always contained in the recurrent section of the budget. It depends on the sector and the respective weight of external funding how other routine and current (noncapital) expenditure is classified. In sectors receiving large amounts of aid (like the MINAG), the project budget (investment) typically contains high amounts of consumables, as well as per diems, fuel, and travel costs. In other sectors, these items would typically be classified as recurrent. Salaries of nonpermanent, contracted staff is also often shown under investment.

Then, the system of budget classification in use in Mozambique structures public expenditure according to three main criteria, which are specified in the SISTAFE budget regulation: (i) the administrative structure of government through the organic classifier (*classificador orgânico*); (ii) the governance level (*âmbito* or *classificador territorial*), which can be the central, provincial, district or municipality level; and (iii) the economic nature of resource use (*classificador económico* or *rubricas oficiais das Finanças*) with a breakdown into categories such as salary payments, good and services, investment

expenditure, etc.[62] Expenditure under the investment budget is further broken down by projects.

In addition to these, the SISTAFE budget regulation also makes reference to a (macro) program classifier and the sector-programmatic classifier (an extension of the program classifier) that would aim to establish a direct link between program/sectoral objectives and resource allocation/use. The programmatic classifier has been in use since 2009 (after a pilot phase in 2008), but the programmes, derived directly from the five-year government programme, remain broad. The project code is the last part of the macro-programmatic classifier. The sector-programmatic classifiers have not yet been developed.

The new system of budget classification introduced in Mozambique in 2003 uses the standard COFOG **functional classifiers**.[63] However, the functional classifiers presently in use in Mozambique in the budget documentation are only those relating to the 10 principal functions of government (that is, excluding the 69 subfunctions within the GFS-COFOG system). In the year-end accounts given in CGE reports, a full breakdown by function and subfunction is provided, but with some inconsistencies that derive from the fact that it is not the executing agencies themselves but the National Directorate of Public Accounts who determines (on an ex-post basis) the attribution of expenditure to subfunctional classifiers.

While no specific initiative has been taken so far in Mozambique to introduce the subfunctional classifiers of the COFOG system, program budgeting has been introduced on a pilot basis in the 2008 budget for three sectors (one of which is agriculture), with the intention to gradually generalize it thereafter. Program budgeting is viewed as a possible way to fill the functional classification gap, while also enabling improved linkages between policies and budget. One difficulty is that the concept of program may take a range of different significations. The structures of the government's five-year plan and the PARPA do not readily lend themselves to a program classification. When a functional classification is applied, all of the activities of government are categorized inside one function or another. On the other hand, the proposed program classifiers, in the way they have been developed thus far, refer only to certain types of public expenditure. Specifically, they refer only to projects related to clusters of activities (programs) within the PARPA and the government's five-year plan. They do not provide a basis for a comprehensive classification of all recurrent and investment activities in relation to their objectives.

The agriculture sector corresponds to one of the 69 subfunctions (or groups) defined in the COFOG system, within the main function (or division) "04 - Economic affairs." This subfunction (or group) "04.2 - Agriculture, forestry, fishing and hunting" is further subdivided into three classes in the COFOG system: 04.2.1 (agriculture), 04.2.2 (forestry)

62 SISTAFE, Decree nº 17/2002.

63 The UN-supported COFOG provides a functional classification that cuts across administrative entities. It comprises 10 main functions at the higher level and 69 subfunctional classifiers. This has replaced the functional classification previously used in Mozambique by MF, which was not internally coherent: it included duplications with only a few categories actually being used.

and 04.2.3 (fishing and hunting).[64] The COFOG system, as defined for international comparison purposes with its mandatory three levels, would thus not provide a very detailed breakdown of agriculture expenditures, even if it were fully applied in Mozambique.

At present (2009), Mozambique is using an extended set of functional classification for the agriculture sector as follows:

04200	**Agriculture, forestry, animal husbandry, fishing and hunting**
04210	**Agriculture**
04211	Land rights management
04212	Agrarian reform
04213	Prices and agricultural incomes
04214	Rural extension
04215	Veterinary services
04216	Pest control
04219	Other services n.e.s.
04220	**Forestry**
04221	Forestry
04230	**Fishing and hunting**
04231	Fishing
04232	Hunting
04240	**Animal husbandry**
04241	Animal husbandry
04250	**Irrigation**
04251	Irrigation
04290	**Agriculture, forestry, fishing and hunting n.e.s.**
04291	Agriculture, forestry, fishing and hunting n.e.s.

These are in use for classifying expenditure in 2009. They have not been used systematically in previous years.

The budget programs defined so far in Mozambique remain very general. In the CFMP 2009–11, three programs have been defined specifically for agriculture (MINAG)—institutional support, agrarian production, and natural resources management—and three for fisheries (MP)—institutional support to the fishing sector, development of small-scale fishing, development of commercial fishing—all of which are also defined in very broad terms. Specific attempts have been made under ProAgri to come up with a more detailed functional breakdown of agriculture spending in MINAG. These, however, have met only limited success, mainly because, in practice, large amounts appear as general expenses or overheads. Examples are per diems, fuel, or maintenance of vehicles that are being used for various activities and components.

The **administrative (organic) classifier** may partly compensate for the absence of a detailed functional or programmatic classification, because it distinguishes between ministries and their subordinate agencies which have specific functions, for instance the MP and the MINAG. Within the latter, it distinguishes between subordinate institutions dealing specifically with research or other defined activities. However, this classifier does not provide a breakdown of expenditure below the ministry (or hierarchically equivalent) level.

[64] There is a total of 110 such classes for the whole COFOG system, which does not define a finer classification below these three levels (division, group, class).

Therefore it does not allow the identification of expenditure executed by specific directorates, departments or units within a given ministry (for instance within MINAG, National Directorate of Veterinary Services, National Directorate of Extension, etc.). The accounting system (Arco-Iris) developed under ProAgri, however, does provide a detailed organic classification of MINAG expenditure—although it applies mainly to the MINAG central level and subordinate institutions, whereas provinces tend to have a single organic code or a breakdown by district but not by main services or subdirectorates which could serve as an approximation for a functional classification.

The most elucidating piece of information on the use of public resources by functional purpose is provided by the **breakdown of investment expenditure by project** managed under each management unit (ministry, provincial directorate, district government, etc.). Three remarks are worth making here. First, the project breakdown is not a budget classifier as such but rather a list of all the projects registered on-budget. Second, the budget presents these projects as corresponding to investment activities when in fact many of them correspond to day-to-day government operation (payment of salaries and topping ups, acquisition of computers and vehicles, etc.), as explained above. Third, and very important, this project breakdown is not taken up in the year-end CGE, and therefore there is no readily available official information from MF on actual spending in each specific project. Therefore, the information could not be used.

2.2 Data sources and corresponding levels of details

The basic sources of official data used in the analysis of expenditures for this AgPER are (i) the OE for annual budgetary allocations, and (ii) the year-end CGE for actual spending. Other complementary data sources include records of received resources and spending from the relevant line ministries or agencies, and records of disbursed aid from donors.

The **OE** is detailed according to the classification system discussed above. The budget statement sent to Parliament, alongside the detailed tables on budgetary allocation, explains the government's fiscal policy and provides the rationale for the budgetary allocations. The budget statement provides some additional information of relevance, including an analysis of proposed expenditure in PARPA priority areas and an analysis of the structure of public expenditure by functions of government. The information submitted to Parliament does not include a project list: it only summarises project expenditure by administrative (spending) unit.

A consolidated annual financial statement, the **CGE**, is prepared at the end of the year. The CGE is presented according to the organic (administrative) and economic classifications only and without any further functional information. More disaggregated accounts are available on request from DNCP, but this information was not requested for this study. The depth of the classification evolved over time. Up to and including 2004, for instance, investment expenditure was not shown disaggregated by internal and external financing.

Detailed data are kept at the line ministry and provincial levels and are not always easily accessed. The quality of **line ministry's own records** is very variable. Sectoral ministries receiving aid through basket funds (or sectoral budget support arrangements) are the ones

having more advanced budget monitoring instruments, in parallel to those required by the MF, to comply with donor requirements. The MINAG, for example, receives budgetary support under ProAgri and uses purposely built software (Arco-Iris) to produce financial reports to donors. This includes a detailed economic classification for the investment as well as the recurrent budgets, both for initial budget allocation and actual spending. This type of information is usually not available in other institutions included in this AgPER. For instance, in the case of the MP, economic classification could be obtained for the recurrent budget (both for initial budget allocations and actual spending)—but only in some years, and only for initial allocations in the case of the investment budget.

There are often differences between figures provided by line agencies and figures from MF. In the past, in the case of MINAG, differences between the figures on actual spending from the FMR communicated to ProAgri, and figures from the CGE produced by the MF were due to the fact that the provincial directorates of planning and finance do not always report to public accounts (MF) the amounts that have been justified as spent by the provincial directorates of agriculture. As a result these amounts, which are substantial, are reported by MF as advances that still need to be justified, whereas they appear as disbursed and accounted for in MINAG's financial management system. Normally this should be an occurrence of the past with the roll-out of SISTAFE.

In the past, some errors have also occurred when the MF transcribed manually MINAG budget proposal into the overall budget proposal to be sent to Parliament. As a result, there are sometimes differences between the initial budget allocations as approved by Parliament, and the "corrected" initial budget allocations in MINAG's Arco-Iris system. One would expect again that with SISTAFE this would be an occurrence of the past.

Data on **Official Development Assistance (grants plus concessionary loans; ODA)** channelled to the agriculture sector can be captured through the ODAMOZ. This is an online database, launched in May 2007, which contains detailed information on ODA to Mozambique. It provides data on ODA commitments and disbursements by donor, DAC classification, location, funding modality, and other criteria. Communication of information to ODAMOZ is optional, but most large donors now input data into the system.[65] At the same time, some donors known to be important, such as China, do not appear at all in ODAMOZ. The ODAMOZ database has been used in this AgPER in order to estimate public spending for those externally financed off-budget projects for which no information could be obtained directly from line ministries.[66]

[65] ODAMOZ is a Web-based application. Every donor that takes part inputs its projects and data from their own offices. This feature is also a weakness because classification of projects is often problematic or not provided, and quality and plausibility checks are still to be introduced.

[66] Line ministries have information on some externally financed off-budget projects, especially when their staff is directly involved in implementation of these projects. For the largest projects, the AgPER team has also contacted directly the relevant project implementation units.

2.3 Main Limitations

Caveats of the main data sources used in this study are explained in considerable detail in the main text (Chapter 3). Therefore, the following description of caveats is a general one, which highlights the most important limitations.

OE: It covers, in principle, all aid to government, monetary as well as in-kind. The publicly available tables, however, make no distinction and do not specify which part of the external funds is managed by public entities or goes through normal channels. Although the budget captures a considerable amount of aid projects, not all are included. U.S.-financed projects are a particular case in point, an anomaly corrected only from the 2009 budget onwards.

The capture of revenues collected by administrative units (and often earmarked to them in return) has improved over time. It was quite incomplete until 2005, and has improved since.

Expenditure by municipalities is covered only to the extent that it is financed from grants provided by the OE.

There is a tendency to overbudget expenditure financed by earmarked aid. Spending units, also encouraged by donors, tend to budget according to the availability of funds in agreements, without taking implementation capacity and the usual delays and unforeseen difficulties into account. As a result, the first round of compilation of expenditure on the basis of sector proposals tends to exceed the expenditure estimated in IMF programmes. There have been years in which external expenditure has been reduced across the board in order to ensure the compatibility of the budget and the ongoing IMF programme.

The **CGE** has limitations that are closely related to the budget modalities. What is not in the budget and what has not been inscribed during the course of the year is not included. The main problem, though, is that the DNCP does not receive spending data on all projects that were in the budget. Approaches to solving this information gap have evolved over time. Initially (still in 2001), the CGE reported only on expenditure that the Public Accounts Directorate could verify. The remainder was estimated, recorded in the initial fiscal table which gives an overview of revenues and expenditures, but then not broken down by economic classification or even sector or spending unit. Since 2002, DNCP uses more flexible methods to get a grasp of project spending. In 2004, all expenditure is attributed to spending units, while those not attributable were not recorded at all. Recently, the ODAMOZ database is increasingly being used to fill information and data gaps.

Since spending by project is not reported in the publicly available version of the CGE, it is not possible to determine which projects were captured and which were not.

As a result, a comparison of planned expenditure, as shown in the budget, and actual expenditure, as shown in the CGE, typically suggests considerable underspending. While underspending doubtlessly is a factor, it does not explain the whole of the difference. The greater part is due to overbudgeting and particularly to underreporting of externally funded expenditure.

Arco-Iris, the accounting system set up within the MINAG since 2001, records expenditure at much more details than the state accounts. But it is limited to spending managed by the

MINAG (including the institutes, except the FDA). Therefore, not all expenditure within the realm of the MINAG gets captured. The small-scale irrigation project financed by ADB is one case in point. As far as we know, there are no cases of funds captured by Arco-Iris and not captured by the public accounting system.

When comparing Arco-Iris data with data recorded in the CGE, one sees discrepancies by subinstitution (like the research institutes) and also with respect to provincial expenditure. Arco-Iris data tend to be higher because in some instances they classified expenditure by the beneficiary rather than by the spending unit that justifies the use of funds with DNCP.

In theory, the budget approved by Parliament is loaded into Arco-Iris as planned. However, in practice, the data have often not been available in time and substituted by expenditure planned in the framework of the activity planning exercise (typically not adjusted to the approved budget) or the previous budget or the budget proposal. The resulting series are so erratic that we refrain from even reporting them. These initial allocations have no bearing in practice. Arco-Iris was designed as a reporting system, not as an expenditure control system, and spending units have always been free to change the budget ceilings for each subcategory, or simply ignore them and overspend, as long as the expenditure was allowed under the official financial management system.

Project data, donor data and FDA reports: The caveats are explained in the main report if and as the numbers are used.

3. Overview of annex tables

The following tables are meant as a database for future use. Many of the presented data have been used in order to produce the tables and graphs in the main section of this report. Also included, though, are data to which little if any reference is made.

The series generally go back to 2001, although data on public expenditure in agriculture can only be interpreted with some degree of precision from 2002 onwards. At times, budget or CFMP data are shown for the years 2008–11. Final budget execution data for 2008 were not yet available when the report was compiled; data from the quarterly budget execution reports were not used because they are too preliminary and incomplete yet.

The first set of tables provides basic and reference information:

- Table 1 is on Basic Economic Indicators (global and by broad sector), deflators, and exchange rate.
- Table 2 is on overall government expenditure.
- Table 3 is on production data from various sources and in different presentations: Table 3A according to the TIA survey, Table 3B for national production according to the Early Warning System. Table 3C disaggregates the data from the Early Warning System by product and province.

The second set of tables is on expenditure in agriculture:

- Table 4 provides the overview on actual expenditure and on planned (budgeted and authorised) expenditure. "Budget" always refers to the original budget, i.e., before modifications and supplementary budgets, and including the *cativo*, the 10 percent of appropriations that will only be released to the spending unit upon explicit request.
- Table 4b shows spending as calculated in Table 4 as percent of GDP.
- Table 4c compares spending in current and in constant prices.

The third table set provides details for the data summarised in Table 4 as follows:

- Table 5 shows actual expenditure, according to the CGE, by the ministries of agriculture and of fisheries, broken down by ministerial and institute-level expenditure.
- Table 6 shows actual expenditure in the complex of the MINAG (excluding the FDA) according to by economic classification (6A overall, 6B for the central level, 6C for provincial level), extracted from Arco-Iris.
- Table 7 shows actual expenditure by functional classification for the MINAG (also excluding the FDA) (7A overall, 7B for the central level, 7C for provincial level), extracted from Arco-Iris.
- Table 8 shows small-scale irrigation projects.
- Table 9 shows large-scale irrigation projects, and a summary of all irrigation expenditure.
- Table 10 shows selected projects of DNPDR with direct impact on agriculture.
- Table 11 shows spending by the MP, including the subordinated and supervised institutes and the Fisheries Fund, according to the records of the MP. Note that these numbers differ, to some extent, from those recorded in Table 4, which contains strictly those datat reported in the CGE.
- Table 12 shows projects operated by the GPZ that were taken into account as agriculture related. Table 13 provides some characterisation of these projects and underpins the selection.
- Table 14 shows spending by the FDA as reported in their annual reports—figures prior to 2006 refer to the FFA only.

Tables 15 and 16 *do not exist*.[67]

- Table 17 provides extracts from the ODAMOZ database, which have been used in order to estimate the volume of off-budget spending in agriculture.

The fourth and final set of tables provides the numerical basis for the analysis of the spatial pattern in agriculture (MINAG only, excluding fisheries). The data effectively used are those reported in the CGE. Note that these are not identical to the expenditure recorded in Arco-Iris.

[67] For technical reasons, it was not opportune to renumber the other tables in order to fill this gap.

- Table 18 provides information on rural population per province, 1997 and 2007.
- Table 19 reports the number of holdings, from the database that is underlying the extrapolations for the annual TIA of the MINAG.
- Table 20 shows GDP in agriculture and fisheries per province, as reported by the INE.
- Table 21 shows public spending per province, to the extent that it was channelled through and recorded by provincial directorates for agriculture, from two sources: the CGE and the Arco-Iris accounting system.
- Tables 22 to 23 relate CGE spending data to rural population and agriculture GDP for each province.
- Table 24 provides an outlook on spending per rural capita on the basis of the budget for 2009.

ANNEX 3: TABLES

Table 1
Basic Economic Indicators

million MT

	act. 1994	act. 1995	act. 1996	act. 1997	act. 1998	act. 1999	act. 2000	act. 2001	act. 2002	act. 2003	act. 2004	act. 2005	act. 2006	act. 2007	CFMP proj. 2008	CFMP proj. 2009	CFMP proj. 2010	CFMP proj. 2011
Gross Domestic Product (GDP) (million MT at current	**13,319**	**20,678**	**36,611**	**43,981**	**51,351**	**57,951**	**65,631**	**84,368**	**99,479**	**110,973**	**128,668**	**151,707**	**180,242**	**209,661**	**226,786**	**255,325**	**287,456**	**323,630**
GDP by economic activities (million MT at current prices):																		
Agriculture	3,815	6,006	9,973	12,029	12,756	13,231	12,322	15,463	23,508	26,007	29,634	34,838	43,042	52,637				
Fishing	501	985	1,311	1,566	1,418	1,310	1,382	1,449	1,781	2,126	2,244	2,284	2,810	3,056				
Industry	1,974	2,920	5,228	6,928	10,090	11,534	13,994	19,402	21,042	26,190	31,884	34,893	43,485	48,552				
Services	6,768	10,684	16,261	19,525	22,546	25,424	30,344	40,711	46,372	48,885	55,612	68,814	79,978	92,019				
SIFIM and taxes	261	84	3,838	3,934	4,540	6,453	7,589	7,343	6,776	7,765	9,294	10,878	10,926	13,396				
Gross Domestic Product (GDP) (million MT at constant 2003 prices)	**52,989**	**54,174**	**62,181**	**69,074**	**77,244**	**83,707**	**84,989**	**95,404**	**104,212**	**110,973**	**119,722**	**129,764**	**141,030**	**151,453**				
GDP by economic activities (million MT at constant 2003 prices):																		
Agriculture	14,125	16,522	17,967	19,679	21,554	22,959	19,946	22,065	24,728	26,007	27,340	29,227	32,263	35,432				
Fishing	1,825	1,876	2,066	2,109	1,876	1,836	1,924	1,936	1,958	2,126	2,131	2,150	2,314	2,456				
Industry	5,493	6,071	7,195	9,257	12,466	15,432	16,851	20,833	22,876	26,190	29,415	31,310	33,521	35,286				
Services	30,611	29,100	30,425	33,390	35,434	37,158	39,782	44,341	46,744	48,885	53,055	58,997	64,825	69,826				
SIFIM and taxes	935	605	4,528	4,639	5,914	6,322	6,486	6,230	7,906	7,765	7,780	8,079	8,106	8,454				
Structure of value-added (% at current prices - excluding SIFIM and taxes)																		
Agriculture	*29.2%*	*29.2%*	*30.4%*	*30.0%*	*27.3%*	*25.7%*	*21.2%*	*20.1%*	*25.4%*	*25.2%*	*24.8%*	*24.7%*	*25.4%*	*26.8%*				
Fishing	*3.8%*	*4.8%*	*4.0%*	*3.9%*	*3.0%*	*2.5%*	*2.4%*	*1.9%*	*1.9%*	*2.1%*	*1.9%*	*1.6%*	*1.7%*	*1.6%*				
Industry	*15.1%*	*14.2%*	*16.0%*	*17.3%*	*21.6%*	*22.4%*	*24.1%*	*25.2%*	*22.7%*	*25.4%*	*26.7%*	*24.8%*	*25.7%*	*24.7%*				
Services	*51.8%*	*51.9%*	*49.6%*	*48.8%*	*48.2%*	*49.4%*	*52.3%*	*52.9%*	*50.0%*	*47.4%*	*46.6%*	*48.9%*	*47.2%*	*46.9%*				
Gross Domestic Product (GDP) - real growth rates (%)																		
GDP annual real growth	6.0%	2.0%	15.0%	11.0%	12.0%	8.0%	2.0%	12.0%	9.0%	6.0%	8.0%	8.0%	9.0%	7.0%	7.0%	7.0%	7.0%	7.0%
by economic activities ("by volume"):																		
Agriculture	0.0%	17.0%	9.0%	10.0%	10.0%	7.0%	-13.0%	11.0%	12.0%	5.0%	5.0%	7.0%	10.0%	10.0%				
Fishing	-7.0%	3.0%	10.0%	2.0%	-11.0%	-2.0%	5.0%	1.0%	1.0%	9.0%	0.0%	1.0%	8.0%	6.0%				
Major Consumer Price Index (CPI) Categories																		
Total CPI (December 1996=100), annual average		62.1	92.3	99.1	100.5	103.4	116.6	127.1	148.5	168.4	189.7	203.3						
(December 2004=100) (annual average)											96.9	103.6	117.7	128.5	147.4			
CPI two series chained		31.8	47.2	50.7	51.4	52.9	59.6	65.0	75.9	86.1	96.9	103.6	117.7	128.5	147.4			
CPI annual growth rate (%)			*48.5%*	*7.4%*	*1.5%*	*2.9%*	*12.7%*	*9.0%*	*16.8%*	*13.4%*	*12.5%*	*7.0%*	*13.6%*	*9.2%*	*14.7%*			
GDP Deflator, base 2003	*25.1*	*38.2*	*58.9*	*63.7*	*66.5*	*69.2*	*77.2*	*88.4*	*95.5*	*100.0*	*107.5*	*116.9*	*127.8*	*138.4*				
Exchange rates																		
MT/USD (annual average)					11.9	12.7	15.7	20.7	20.3	23.8	22.6	23.1	26.0	25.8	24.3			

SIFIM = Indirectly measured financial intermediation services
Sources:
- GDP, CPI 2004-2007: National Institute of Statistics (INE)
- CPI 1998-2004: Banco de Moçambique (Website)
- Exchange rates: Bank of Mozambique - Ministry of Planning and Development (MPD)
- Projections 2008-2011: Cenário Fiscal de Média Prazo 2009-2011 (CFMP)

Table 2
Government Expenditure

million MTn

	2001 actual	2002 actual	2003 actual	2004 actual	2005 actual	2006 actual	2007 actual	2008b budget	2009b budget
Total	24,289.1	29,124.1	28,294.3	31,630.2	40,718.9	48,274.3	60,293.3	87,097.7	102,705.3
Institutional	11,599.8	17,487.0	21,003.9	25,030.3	31,812.3	38,903.9	49,287.8	73,037.6	88,079.9
Personnel	4,965.3	6,266.2	7,383.0	9,120.8	10,732.5	12,983.1	15,995.6	18,093.3	21,572.1
Goods & Services	2,453.5	2,806.1	2,898.2	3,618.4	4,425.1	5,773.7	6,599.3	8,166.9	9,086.4
Institutional transfers	504.9	948.4	1,005.6	1,153.1	995.3	1,146.2	1,492.8	2,144.7	2,287.7
Other recurrent expenditure	238.4	303.1	452.6	626.1	309.3	698.0	1,654.0	1,328.2	2,161.9
Exercícios findos	0.0	0.0	0.0	0.0	0.0	3.7	8.5	12.0	0.3
Capital expenditure (funcionamento)	67.4	59.9	46.4	57.8	66.5	102.9	201.9	385.5	444.3
Internal investment excl. EGE	2,385.7	2,408.2	2,670.0	3,196.4	4,543.6	5,737.8	7,910.3	10,608.6	12,336.6
External investment liquidado	984.6	4,695.1	6,548.1	7,257.7	10,739.9	12,458.4	15,425.3	32,298.3	40,190.6
Non-institutional	12,689.4	11,637.1	7,290.4	6,599.9	8,906.6	9,370.4	11,005.5	14,060.1	14,625.4
Transfers non-institutional	1,625.0	1,748.1	1,939.6	2,338.9	2,837.7	3,408.8	4,409.7	4,877.2	5,460.1
Internal Investiment EGE a/	705.4	905.7	570.3	714.5	773.1	804.2	1,325.5	994.6	1,110.0
Subsidies	77.3	131.6	175.5	191.5	221.7	312.5	344.6	422.7	430.0
Debt service	788.1	1,759.6	2,025.3	1,907.2	1,979.5	2,455.6	2,093.2	2,656.7	2,591.9
Financial Operations, active	2,560.4	3,754.9	765.9	1,447.8	3,094.6	2,389.3	2,832.5	5,108.8	5,033.4
External investment, estimated	6,933.0	3,337.2	1,813.8	0.0	0.0	0.0	0.0	0.0	0.0
% institutional	47.8%	60.0%	74.2%	79.1%	78.1%	80.6%	81.7%	83.9%	85.8%

Sources:
2001-2007: acuals from Conta Geral do Estado mapa I-1
2008 and 2009: original budget
a/ "Despesas Gerais do Estado" = general government expenditure

Table 3A: Agricultural production by major crops - source TIA

Cultivated area (ha)

	2002	2003	2005	2006	2007	Average
Cultivated area (ha)	4,577,046	4,846,404	5,912,000	5,605,000	5,787,000	5,345,490
Cultivated area under annual crops (ha)	4,185,180	4,534,646	5,381,000	5,105,000	5,352,000	4,911,565

Source: TIA 02 through 07

Crop production (000 tons) by small and medium holdings

	2002	2003	2005	2006	2007	Average
Maize	1,114.8	1,181.3	941.5	1,395.5	1,134.0	1,153.4
Rice	93.4	117.5	64.6	97.6	103.0	95.2
Millet	138.3	190.8	114.5	201.8	166.9	162.5
Sorghum	12.2	21.6	15.3	22.4	24.8	19.3
Beans	35.7	41.0	50.3	49.6	54.5	46.2
Cotton	103.1	75.1	114.3	128.2	92.8	102.7
Tobacco	42.6	51.3	81.0	93.1	33.6	60.3
Sesame	13.9	13.6	20.1	20.6	18.8	17.4

Source: TIA 02 through 07

Table 3B: Food Production in Mozambique (000 tons) 1993-2007 - source: Aviso Prévio

Crop	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Cassava	3,294.4	4,177.5	4,733.5	5,336.7	5,639.0	5,552.9	5,362.0	6,378.8	5,924.6	6,149.9	6,412.8	5,232.6	7,551.7
Maize	526.4	733.8	947.2	1,042.0	1,123.7	1,246.1	1,019.0	1,158.4	1,235.7	1,247.9	1,434.7	1,331.7	1,533.5
Sorghum	163.7	243.3	249.3	262.5	317.1	326.3	252.5	320.7	314.1	314.6	330.9	315.0	338.7
Millet	28.8	35.4	41.6	44.2	53.3	61.3	48.9	62.0	49.5	48.0	51.3	34.9	42.9
Rice	6.8	3.5	7.4	20.8	11.1	12.8	9.8	6.2	167.9	200.4	187.1	114.6	182.6
Pulses	95.3	134.2	140.6	152.8	191.1	188.6	146.4	155.9	177.4	179.6	192.8	195.6	219.1
Groundnuts	73.7	102.1	117.5	126.2	142.8	137.0	114.6	110.6	109.8	109.9	132.1	114.6	145.6
TOTAL	4,189.1	5,429.8	6,237.0	6,985.2	7,478.1	7,525.0	6,953.1	8,192.7	7,978.9	8,250.3	8,741.6	7,339.0	10,014.0
of which													
Maize / Sorghum / Millet	718.9	1,012.5	1,238.1	1,348.7	1,494.1	1,633.6	1,320.3	1,541.2	1,599.3	1,610.5	1,816.9	1,681.6	1,915.1

Source: MINAG/DNSA, Aviso Prévio

Table 3C: Selected crop production data by year and province

Source: MINAG-DNSA, Aviso Prévio
Year = Harvest Year

Cassava - Production (ton) by Province, Region and Total 1993 - 2007

Province	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CABO DELGADO	525,076	592,470	665,595	736,812	760,985	784,495	811,701	1,011,022	1,094,983	1,203,284	1,236,647	1,261,504	1,468,965	1,526,189
NIASSA	83,608	107,492	120,470	140,689	138,655	122,954	127,005	149,553	162,705	179,118	183,764	191,536	220,340	224,967
NAMPULA	1,555,264	1,984,463	2,317,475	2,555,080	2,654,116	2,689,261	2,451,576	2,691,707	2,272,388	2,221,379	2,248,683	2,316,161	2,849,747	3,212,545
ZAMBEZIA	829,754	1,065,816	1,146,750	1,351,848	1,490,555	1,461,345	1,460,200	1,592,819	1,776,340	1,965,438	2,009,896	1,232,581	2,147,087	2,314,212
TETE	4,156	3,063	3,780	6,202	6,960	7,545	6,318	7,313	7,643	7,824	8,752	7,570	9,303	11,162
MANICA	1,899	2,793	3,122	3,365	5,425	5,928	4,904	6,553	7,706	7,683	8,408	0	12,725	13,933
SOFALA	41,391	57,083	63,373	65,309	60,065	59,867	44,188	65,888	78,341	81,502	91,994	756	98,985	99,971
INHAMBANE	199,740	254,699	293,068	331,456	341,019	295,985	295,670	634,552	315,646	347,768	403,035	51	483,056	483,869
GAZA	46,794	91,676	101,748	123,199	157,325	106,643	143,339	186,686	179,404	123,176	195,662	195,662	230,766	240,415
MAPUTO	6,759	17,980	18,132	22,782	23,858	18,905	17,074	32,685	29,394	12,725	25,926	26,733	30,755	33,393
REGIÃO NORTE	2,163,948	2,684,425	3,103,540	3,432,581	3,553,756	3,596,710	3,390,281	3,852,282	3,530,077	3,603,780	3,669,095	3,769,201	4,539,052	4,963,700
REGIÃO CENTRO	877,200	1,128,755	1,217,025	1,426,724	1,563,005	1,534,685	1,515,610	1,672,574	1,870,030	2,062,447	2,119,051	1,240,907	2,268,099	2,439,278
REGIÃO SUL	253,293	364,355	412,948	477,437	522,202	421,533	456,083	853,924	524,444	483,669	624,623	222,446	744,576	757,678
Total Mozambique	3,294,441	4,177,535	4,733,513	5,336,742	5,638,963	5,552,928	5,361,974	6,378,779	5,924,551	6,149,896	6,412,769	5,232,554	7,551,727	8,160,656

Maize - Production (ton) by Province, 1993 - 2007

Province	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CABO DELGADO	45,063	77,514	81,104	62,222	97,409	57,265	50,104	70,444	105,565	133,293	135,822	139,711	153,494	160,998
NIASSA	79,481	133,241	162,678	175,625	173,508	144,568	121,641	134,327	178,633	199,556	204,848	220,260	260,384	264,230
NAMPULA	41,173	85,677	101,018	117,229	120,410	129,197	106,995	122,660	111,582	135,345	135,760	155,070	159,439	165,415
ZAMBEZIA	91,831	174,464	183,798	190,584	212,547	192,366	166,787	194,953	260,066	265,461	277,623	249,191	286,203	303,861
TETE	45,305	35,936	92,337	125,677	125,282	177,544	139,986	151,078	177,798	182,068	188,188	179,045	206,310	237,214
MANICA	101,525	76,110	154,556	160,078	158,632	260,829	191,868	205,873	207,891	177,261	241,830	177,999	241,283	269,001
SOFALA	52,429	58,492	64,352	64,713	71,836	105,333	74,568	79,668	70,234	80,150	86,410	85,224	74,247	80,157
INHAMBANE	37,751	48,997	65,550	47,911	59,806	104,466	83,022	75,921	40,014	28,206	42,607	37,681	52,999	34,009
GAZA	23,772	23,033	26,577	61,159	74,050	38,811	53,728	66,215	51,343	30,885	93,275	54,955	59,108	52,189
MAPUTO	8,031	20,339	15,255	36,827	30,178	35,699	30,335	57,305	32,532	15,672	28,384	32,534	40,052	12,360
Total Mozambique	526,361	733,803	947,225	1,042,025	1,123,658	1,246,078	1,019,033	1,158,444	1,235,657	1,247,897	1,434,746	1,331,670	1,533,520	1,579,434

Sorghum - Production (ton) by Province, 1993 - 2007

Province	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CABO DELGADO	22,514	36,985	24,054	27,164	34,245	34,708	28,606	36,931	49,910	48,165	49,305	56,126	57,547	59,099
NIASSA	13,298	24,064	21,402	23,028	24,816	23,263	25,335	29,146	28,203	26,907	27,584	33,294	34,002	35,035
NAMPULA	43,628	72,750	77,816	85,827	90,122	89,064	63,162	85,971	83,933	83,828	84,809	91,903	97,205	100,648
ZAMBEZIA	22,096	33,092	34,798	33,410	44,512	44,948	41,647	45,888	48,409	49,160	49,651	40,439	48,066	50,784
TETE	13,660	10,640	17,001	20,463	31,618	42,297	24,232	31,115	29,119	26,882	30,077	18,743	27,589	28,839
MANICA	14,057	14,702	19,250	19,761	28,132	28,566	23,279	30,708	23,087	25,741	29,248	21,425	34,097	37,350
SOFALA	23,452	33,805	34,773	32,165	39,781	40,146	29,549	41,004	33,845	40,841	42,984	43,516	24,146	24,248
INHAMBANE	9,157	13,816	17,059	14,818	15,042	15,695	12,327	13,172	11,259	8,580	12,453	8,968	14,498	10,117
GAZA	1,674	2,781	2,480	4,994	7,985	6,728	4,056	6,290	5,744	4,047	4,355	564	1,542	1,460
MAPUTO	174	656	673	861	892	835	267	480	627	438	451	0	0	0
Total Mozambique	163,710	243,291	249,306	262,491	317,145	326,250	252,461	320,705	314,136	314,590	330,917	314,979	338,693	347,581

Millet - Production (ton) by Province, 1993 - 2007

Province	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CABO DELGADO	1,342	2,129	1,452	1,705	2,183	2,194	1,718	2,165	2,992	2,966	3,023	3,285	3,402	3,452
NIASSA	574	926	884	894	1,060	999	1,096	1,253	1,226	1,179	1,207	1,434	1,467	1,516
NAMPULA	2,024	2,989	3,443	4,247	4,604	4,488	3,155	4,245	4,113	4,198	4,380	4,335	4,624	5,641
ZAMBEZIA	3,686	4,998	5,531	5,511	8,384	8,414	7,719	8,258	8,992	8,998	9,381	6,520	4,535	4,758
TETE	6,785	5,680	8,356	9,462	14,083	19,055	11,781	13,745	11,600	12,037	13,485	9,203	12,400	13,362
MANICA	4,661	4,062	6,140	6,405	6,660	8,508	7,308	9,388	6,284	6,942	6,495	3,525	8,251	8,306
SOFALA	4,502	6,086	6,416	6,715	5,064	7,490	7,830	10,336	5,083	6,090	6,651	4,609	4,231	3,957
INHAMBANE	4,365	6,916	7,730	6,818	6,755	6,350	5,480	5,665	5,726	3,425	4,274	1,735	3,563	3,200
GAZA	864	1,628	1,608	2,414	4,539	3,780	2,767	6,946	3,483	2,186	2,376	259	382	376
MAPUTO	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Mozambique	28,803	35,414	41,560	44,171	53,332	61,278	48,854	62,001	49,500	48,021	51,272	34,906	42,856	44,568

Cereals (Maize + Sorghum + Millet) Production (ton) by Province, 1993 - 2007

Province	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Nampula	86,825	161,416	182,277	207,303	215,136	222,749	173,313	212,876	199,628	223,372	224,949	251,308	261,269	271,704
Zambezia	117,613	212,554	224,127	229,505	265,443	245,728	216,152	249,099	317,468	323,620	336,655	296,150	338,804	359,403
Cabo Delgado	68,919	116,628	106,610	91,091	133,837	94,167	80,428	109,541	158,467	184,425	188,150	199,122	214,444	223,549
Niassa	93,353	158,231	184,964	199,547	199,384	168,830	148,072	164,727	208,061	227,642	233,640	254,988	295,853	300,780
Tete	65,750	52,256	117,694	155,602	170,983	238,896	175,999	195,939	218,516	220,987	231,750	206,992	246,299	279,414
Manica	120,243	94,874	179,946	186,244	193,424	297,903	222,455	245,968	237,263	209,943	277,573	202,950	283,632	314,657
Sofala	80,383	98,383	105,541	103,593	116,681	152,969	111,946	131,008	109,162	127,080	136,045	133,348	102,624	108,363
Inhambane	51,273	69,729	90,339	69,547	81,603	126,511	100,830	94,758	56,999	40,211	59,334	48,384	71,060	47,326
Gaza	26,310	27,442	30,665	68,567	86,574	49,319	60,551	79,451	60,571	37,118	100,005	55,778	61,032	54,026
Maputo Prov	8,205	20,995	15,928	37,688	31,070	36,534	30,601	57,784	33,158	16,110	28,835	32,534	40,052	12,360
Total Mozambique	718,874	1,012,508	1,238,091	1,348,687	1,494,135	1,633,606	1,320,348	1,541,150	1,599,293	1,610,508	1,816,935	1,681,554	1,915,068	1,971,583

Rice - Production (ton) by Province, Region and Total 1993 - 2007

Province	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CABO DELGADO	14	103	63	70	257	261	221	189	16,714	17,538	17,607	18,039	17,599	17,981
NIASSA	0	0	0	0	33	36	35	0	3,635	4,225	4,361	4,384	4,936	5,489
NAMPULA	719	796	875	919	143	132	116	107	32,200	34,081	35,617	37,649	26,716	27,442
ZAMBEZIA	641	667	224	267	2,002	2,082	1,000	828	78,944	100,845	81,811	45,938	96,739	103,882
TETE	2	0	0	0	0	0	0	0	200	210	215	114	116	24
MANICA	0	0	0	0	0	0	0	0	497	603	713	790	674	707
SOFALA	310	443	543	574	739	769	659	568	23,265	30,207	33,552	670	22,675	24,336
INHAMBANE	0	0	4	8	3	4	3	2	2,147	2,045	2,198	4	1,564	1,415
GAZA	4,291	1,078	5,071	18,025	6,373	7,953	6,518	3,771	8,658	7,726	7,763	5,971	8,828	11,715
MAPUTO	801	376	597	893	1,508	1,589	1,264	716	1,665	2,959	3,215	1,052	2,726	2,975
REGIÃO NORTE	733	899	938	989	433	429	371	296	52,549	55,843	57,585	60,073	49,251	50,912
REGIÃO CENTRO	953	1,110	767	841	2,741	2,851	1,659	1,396	102,906	131,865	116,290	47,512	120,204	128,949
REGIÃO SUL	5,092	1,454	5,672	18,926	7,884	9,546	7,784	4,489	12,470	12,729	13,176	7,027	13,118	16,106
Total Mozambique	6,778	3,463	7,377	20,756	11,058	12,826	9,815	6,181	167,925	200,437	187,051	114,612	182,573	195,967

Table 4
Public Expenditures in Agriculture - Summary Table (by institution)

A. Actual Expenditures

million MT

	act. 2001	act. 2002	act. 2003	act. 2004	act. 2005	act. 2006	act. 2007	budget 2008
[1/] Ministry of Agriculture	405.8	1,194.7	1,082.9	1,236.4	1,388.4	1,456.7	1,611.0	
central	272.8	796.8	583.9	764.4	926.5	957.1	1,009.4	
provincial	133.0	398.0	499.0	472.1	462.0	499.6	601.6	
"Funcionamento"	175.9	226.4	188.4	281.4	324.3	320.7	421.3	
[2/] central	86.5	131.3	83.0	146.5	172.3	133.4	176.0	
[3/] provincial	89.4	95.1	105.3	134.9	152.1	187.3	245.3	
"Investimento"	229.9	968.3	894.5	955.0	1,064.1	1,136.0	1,189.7	
central	186.4	665.5	500.8	617.8	754.2	823.7	833.4	
provincial	43.6	302.9	393.7	337.2	309.9	312.3	356.3	
Irrigation projects MOPH & HICEP	48.4	299.1	271.1	435.4	975.2	520.5	482.3	
Agricultural Development Fund	22.2	31.7	44.4	66.0	97.0	217.1	281.8	
[4/] Ministry of Fisheries	27.4	129.6	55.2	299.8	213.7	340.4	250.6	
central	22.4	123.7	48.9	288.3	197.2	316.9	216.5	
provincial	5.0	5.9	6.3	11.5	16.5	23.5	34.0	
"Funcionamento"	18.0	25.8	29.5	44.6	52.3	68.1	93.4	
central	14.6	20.3	23.8	33.7	37.1	45.2	62.6	
provincial	3.4	5.4	5.7	11.0	15.3	22.9	30.8	
"Investimento"	9.5	103.8	25.7	255.1	161.4	272.2	157.2	
central	7.8	103.4	25.1	254.6	160.1	271.7	153.9	
provincial	1.6	0.4	0.6	0.5	1.3	0.5	3.2	
[5/] Rural Development /DNPDR	Included in Ministry of Agriculture				116.6	135.7	135.0	
[6/] Zambezi Region Development Authority (GPZ)			16.7	3.0	3.7	8.9	12.2	
[7/] District Investment for Food and Employment (OIIL) - 50%							507.8	
GRAND TOTAL	503.7	1,655.1	1,470.3	2,040.5	2,794.6	2,679.3	3,280.6	
excl. OIIL							2,772.8	
"Funcionamento"	193.8	252.2	217.9	326.0	376.7	388.8	514.7	
"Investimento"	309.9	1,403.0	1,252.4	1,714.5	2,417.9	2,290.4	2,765.9	
Exchange rate MTN/USD, period average	20.7	20.3	23.8	22.6	23.1	26.0	25.8	24.3
GDP Deflator, index 2003=100	88.4	95.5	100.0	107.5	116.9	127.8	138.4	

n.a. = information not available

Table 4
Public Expenditures in Agriculture - Summary Table (by institution)

1/ (from 1994) till 1999, Ministry of Agriculture and Fisheries (MAP)
From 2000-2004, Ministry of Agriculture and Rural Development (MADER)
Since 2005, Ministry of Agriculture (MINAG)

2/ (ano 2000) O orçamento de funcionamento central é somatório do MADER e MAP

3/ (ano 2000) O orçamento de funcionamento provincial inclui SEC e SEHA

4/ Since 2000, Ministry of Fisheries (*Ministério das Pescas*, MP)
Data from Ministry of Fisheries include the Fund for the Promotion of Fishing (*Fundo de Fomento Pesqueiro*, FFP)

5/ (from 1994) till 1999, National Rural Development Institute (*Instituto Nacional para o Desenvolvimento Rural*, INDER)
From 2000-2004, Ministry of Agriculture and Rural Development (MADER)
Since 2005, National Directorate for the Promotion of Rural Develpment (DNPDR), within the Ministry of Planning and Development (MPD)

"Funcionamento" budget is not included, as it is available only for the whole Ministry (MPD) and not separately for DNPDR
"Investimento" budget is estimated on the basis of identification of rural development projects considered as agriculture and overseen by DNPDR

6/ GPZ initiated its activities in 2003. Only identified "investimento" projects related to agriculture have been included.

7/ Information from MPD on total funds allocated for "food and employment" to districts

Sources:
- Conta Geral do Estado
- Agricultural Development Fund (*Fundo de Desenvolvimento Agrário*)
- Table 9 (Irrigation Projects MOPH and HICEP)
- Table 10 (DPNDR)
- Table 12 (GPZ)

Table 4
Public Expenditures in Agriculture - Summary Table (by institution)

B. Planned Expenditures - initial budget allocations (MF)

million MT

	prog. 2001	prog. 2002	prog. 2003	prog. 2004	prog. 2005	prog. 2006	prog. 2007	prog. 2008
1/ Ministry of Agriculture	720.2	1,106.3	2,036.5	1,989.2	1,533.5	1,737.2	2,399.3	2,490.1
central	452.1	666.5	1,436.7	1,276.2	1,073.6	1,216.1	1,470.4	1,455.8
provincial	268.1	439.8	599.8	713.0	459.9	521.1	928.9	1,034.3
"Funcionamento" budget	156.3	194.8	239.5	348.1	351.8	449.5	536.3	487.2
2/ central	76.9	92.0	109.2	199.2	226.6	248.5	305.9	236.7
3/ provincial	79.4	102.8	130.3	148.8	125.2	201.0	230.4	250.6
"Investimento" budget	563.8	911.5	1,797.0	1,641.1	1,181.7	1,287.7	1,863.0	2,002.9
central	375.2	574.5	1,327.5	1,076.9	847.0	967.6	1,164.5	1,219.1
provincial	188.7	337.0	469.5	564.2	334.8	320.1	698.5	783.8
Irrigation projects MOPH & HICEP	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Agricultural Development Fund	25.5	33.6	37.7	39.1	85.0	120.0	460.2	460.2 assumed as 2007
4/ Ministry of Fisheries	159.9	215.0	177.1	512.2	324.1	483.7	1,027.3	1,032.7
central	156.4	206.8	164.0	495.8	293.1	448.4	996.9	927.3
provincial	3.5	8.1	13.1	16.4	31.0	35.2	30.5	105.3
"Funcionamento" budget	20.5	38.7	41.3	49.8	69.2	98.8	98.3	194.9
central	17.1	30.6	31.4	34.8	39.9	64.9	72.7	111.3
provincial	3.5	8.1	9.9	15.0	29.4	33.9	25.6	83.6
"Investimento" budget	139.4	176.3	135.8	462.4	254.8	384.9	929.0	837.8
central	139.4	176.3	132.6	460.9	253.2	383.6	924.1	816.1
provincial			3.2	1.5	1.6	1.3	4.9	21.7
5/ Rural Development /DNPDR	12.8	14.0	61.0	111.7	137.8	138.2	154.2	154.2 assumed as 2007
6/ Zambezi Region Development Authority (GPZ)			18.5	4.4	9.8	12.9	12.4	12.4 assumed as 2007
7/ District Investment for Food and Employment (OIIL) - 50%							507.8	511.4
GRAND TOTAL excluding irrigation projects MOPH & HICEP	918.3	1,368.9	2,330.7	2,656.5	2,090.2	2,491.9	4,561.0	4,660.8
"Funcionamento"	176.9	233.5	280.8	397.8	421.0	548.3	634.6	682.1
"Investimento"	741.4	1,135.3	2,049.9	2,258.7	1,669.2	1,943.7	3,926.5	3,978.7

n.a. = information not available

Table 4b
Public Expenditures in Agriculture - Summary Table (by institution)

E. Actual Agriculture Expenditure as % of Agriculture value-added in GDP [a/]

	act. 2001	*act.* 2002	*act.* 2003	*act.* 2004	*act.* 2005	*act.* 2006	*act.* 2007	*budget* 2008	*budget* 2009
Spending in million Mt									
Ministry of Agriculture	405.8	1,194.7	1,082.9	1,236.4	1,388.4	1,456.7	1,611.0	2,490.0	3,044.2
Large-scale irrigation (MOPH & HICEP)	48.4	299.1	271.1	435.4	975.2	520.5	482.3	482.3	482.3
Agricultural Development Fund	22.2	31.7	44.4	66.0	97.0	217.1	281.8	281.8	242.0
Ministry of Fisheries	27.4	129.6	55.2	299.8	213.7	340.4	250.6	1,032.7	1,279.0
Rural Development /DNPDR		0.0	0.0	0.0	116.6	135.7	135.0	135.0	135.0
Zambezi Region Development Authority (GPZ)	0.0	0.0	16.7	3.0	3.7	8.9	12.2	12.2	12.2
OIIL agriculture (50%)	0.0	0.0	0.0	0.0	0.0	0.0	507.8	511.4	533.1
Total incl. OIIL	503.7	1,655.1	1,470.3	2,040.5	2,794.6	2,679.3	3,280.6	4,945.4	5,727.8
Total excl. OIIL	503.7	1,655.1	1,470.3	2,040.5	2,794.6	2,679.3	2,772.8	4,434.0	5,194.7
Agriculture GDP									
Agriculture	15,463	23,508	26,007	29,634	34,838	43,042	52,637		
Fishing	1,449	1,781	2,126	2,244	2,284	2,810	3,056		
Spending as % of Agriculture GDP									
Ministry of Agriculture	2.4%	4.7%	3.8%	3.9%	3.7%	3.2%	2.9%		
Ministry of Fisheries	0.2%	0.5%	0.2%	0.9%	0.6%	0.7%	0.4%		
Agricultural Development Fund	0.1%	0.1%	0.2%	0.2%	0.3%	0.5%	0.5%		
Rural Development /DNPDR	0.0%	0.0%	0.0%	0.0%	0.3%	0.3%	0.2%		
Zambezi Region Development Authority (GPZ)	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%		
Large-scale irrigation (MOPH & HICEP)	0.3%	1.2%	1.0%	1.4%	2.6%	1.1%	0.9%		
OIIL agriculture (50%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%		
Total incl. OIIL	3.0%	6.5%	5.2%	6.4%	7.5%	5.8%	5.9%		
Total excl. OIIL	3.0%	6.5%	5.2%	6.4%	7.5%	5.8%	5.0%		
Total excl. OIIL and large-scale irrigation	2.7%	5.4%	4.3%	5.0%	4.9%	4.7%	4.1%		

Table 4c
Public Expenditures in Agriculture - current versus constant prices

million MT

	act.	*act.*	*act.*	*act.*	*act.*	*act.*	*act.*
current prices	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
MINAG+	405.8	1,194.7	1,082.9	1,236.4	1,388.4	1,456.7	1,611.0
Large-scale irrigation (Massingir, Chókwè)	48.4	299.1	271.1	435.4	975.2	520.5	482.3
FDA	22.2	31.7	44.4	66.0	97.0	217.1	281.8
Ministry of Fisheries	27.4	129.6	55.2	299.8	213.7	340.4	250.6
DNPDR		0.0	0.0	0.0	116.6	135.7	135.0
GPZ	0.0	0.0	16.7	3.0	3.7	8.9	12.2
OIIL							507.8
Total	503.7	1,655.1	1,470.3	2,040.5	2,794.6	2,679.3	2,772.8
GDP deflator (2003=100)	88.4	95.5	100.0	107.5	116.9	127.8	138.4
constant 2003 princes (GDP deflator)	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
MINAG+	458.9	1,251.6	1,082.9	1,150.5	1,187.6	1,139.8	1,163.7
Large-scale irrigation (Massingir, Chókwè)	54.7	313.4	271.1	405.1	834.1	407.3	348.4
FDA	25.0	33.2	44.4	61.4	83.0	169.9	203.6
Ministry of Fisheries	31.0	135.8	55.2	278.9	182.8	266.3	181.0
DNPDR	0.0	0.0	0.0	0.0	99.7	106.2	97.5
GPZ	0.0	0.0	16.7	2.8	3.2	6.9	8.8
OIIL							366.8
Total	569.6	1,733.9	1,470.3	1,898.6	2,390.4	2,096.4	2,003.0

Table 5: Actual expenditure by institutional and other classifications

Thousand MTn

	2001						2002					
	Pessoal	B&S	Other recurrent	Total recurrent	Investment Total /a	Total	Pessoal	B&S	Other recurrent	Total recurrent	Investment Total /a	Total
Agriculture	**118,825**	**19,944**	**37,085**	**175,854**	**229,928**	**405,782**	**134,741**	**81,797**	**9,850**	**226,389**	**968,348**	**1,194,737**
MINAG	**118,825**	**19,944**	**37,085**	**175,854**	**229,928**	**405,782**	**117,861**	**80,121**	**9,845**	**207,827**	**947,449**	**1,155,276**
MINAG central	46,169	10,624	29,676	86,470	186,360	272,830	36,872	70,339	5,489	112,699	644,591	757,290
MINAG provincial	72,656	9,319	7,409	89,384	43,568	132,952	80,989	9,782	4,357	95,128	302,858	397,986
Institutes												
Instituto Algodão												
Incajú												
Instituto Açúcar												
IIAM (all research up to 2004)							16,880	1,677	5	18,562	20,899	39,461
Instituto Investigação Vet.												
Instituto Produção Animal												
Cepagri												
Formação terras e cartografia												
CN Cartografia e teledatação												
FDA												
Pescas	**12,964**	**4,910**	**79**	**17,953**	**9,454**	**27,407**	**19,157**	**6,229**	**386**	**25,773**	**103,822**	**129,595**
MinPescas												
Pescas Central	11,046	3,481	36	14,562		14,562	16,001	4,280	53	20,335	21,352	41,687
Pescas provincial	1,919	1,429	43	3,391	1,648	5,039	3,156	1,950	332	5,438	418	5,856
Institutes												
Central												
Escola de Pesca												
Fundo Fomento Pesqueiro					7,806	7,806					82,051	82,051
Inst. Investigação Pesqueira												
Pesca Pequena Escala												
Instituto de Desenv. da Pesca												
Inst. Inspecção do Pescado												
Instituto Aquacultura												
Provincial												
Inst. Investigação Pesqueira												
Pesca Pequena Escala												
Inspecção do Pescado												
Districts: 50% of internal												

a/ For the years 2001-2004, the column "internal investment" includes external investment.
Source: 2001-2007 Conta Geral do Estado, 2008 and 2009 approved budget

Table 5: Actual expenditure by institutional and other classifications

Thousand MTn

	2003						2004					
	Pessoal	B&S	Other recurrent	Total recurrent	Investment Total /a	Total	Pessoal	B&S	Other recurrent	Total recurrent	Investment Total /a	Total
Agriculture	**144,855**	**24,450**	**19,056**	**188,361**	**894,539**	**1,082,901**	**184,776**	**37,393**	**59,237**	**281,406**	**955,032**	**1,236,438**
MINAG	**128,811**	**23,535**	**19,056**	**171,402**	**841,488**	**1,012,890**	**162,983**	**34,545**	**59,223**	**256,751**	**894,684**	**1,151,435**
MINAG central	38,447	9,640	17,990	66,076	447,770	513,846	55,995	14,450	51,442	121,887	557,495	679,382
MINAG provincial	90,364	13,895	1,066	105,326	393,718	499,043	106,988	20,095	7,781	134,865	337,189	472,054
Institutes							**21,793**	**2,848**	**14**	**24,655**	**60,348**	**85,003**
Instituto Algodão										0		0
Incajú										0		0
Instituto Açúcar										0		0
IIAM (all research up to 2004)	16,044	915		16,960	53,051	70,011	21,793	2,848	14	24,655	60,348	85,003
Instituto Investigação Vet.										0		0
Instituto Produção Animal										0		0
Cepagri										0		0
Formação terras e cartografia										0		0
CN Cartografia e teledatação										0		0
FDA										0		0
										0		0
Pescas	**21,160**	**8,316**	**44**	**29,521**	**25,665**	**55,186**	**32,088**	**10,901**	**1,632**	**44,620**	**255,134**	**299,754**
MinPescas							**32,088**	**10,901**	**1,632**	**44,620**	**5,321**	**49,942**
Pescas Central	17,697	6,115	34	23,846	6,930	30,776	25,375	8,234	48	33,657	4,817	38,474
Pescas provincial	3,463	2,201	10	5,674	601	6,276	6,713	2,667	1,584	10,963	505	11,468
Institutes							**0**	**0**	**0**	**0**	**249,813**	**249,813**
Central							0			0		0
Escola de Pesca										0		0
Fundo Fomento Pesqueiro					18,134	18,134				0	249,813	249,813
Inst. Investigação Pesqueira										0		0
Pesca Pequena Escala										0		0
Instituto de Desenv. da Pesca										0		0
Inst. Inspecção do Pescado										0		0
Instituto Aquacultura										0		0
Provincial										0		0
Inst. Investigação Pesqueira										0		0
Pesca Pequena Escala										0		0
Inspecção do Pescado										0		0
Districts: 50% of internal												

a/ For the years 2001-2004, the column "int

Source: 2001-2007 Conta Geral do Estado,

Table 5: Actual expenditure by institutional and other classifications

Thousand MTn

	2005							
	Pessoal	B&S	Other recurrent	Total recurrent	Internal invest	External invest	Total internal	Total
Agriculture	**205,481**	**103,873**	**14,997**	**324,351**	**138,172**	**925,904**	**462,523**	**1,388,427**
MINAG	**178,384**	**42,126**	**14,879**	**235,389**	**90,047**	**864,573**	**325,436**	**1,190,009**
MINAG central	54,092	18,015	11,183	83,290	33,863	610,894	117,153	728,047
MINAG provincial	124,292	24,111	3,696	152,099	56,184	253,679	208,283	461,962
Institutes	**27,097**	**61,747**	**118**	**88,962**	**48,125**	**61,331**	**137,087**	**198,418**
Instituto Algodão	2,367			2,367		9,802	2,367	12,169
Incajú	1,024	61,278		62,302	42,899	18,260	105,201	123,461
Instituto Açúcar	1,315	89		1,404			1,404	1,404
IIAM (all research up to 2004)	9,440	208	3	9,651	3,682	28,709	13,333	42,042
Instituto Investigação Vet.	7,144	77		7,221	851	3,188	8,072	11,260
Instituto Produção Animal	5,807	95	115	6,017	693	1,372	6,710	8,082
Cepagri				0			0	0
Formação terras e cartografia				0			0	0
CN Cartografia e teledatação				0			0	0
FDA				0			0	0
				0			0	0
Pescas	**38,348**	**13,464**	**527**	**52,339**	**7,761**	**153,596**	**60,100**	**213,696**
MinPescas	**24,487**	**10,510**	**527**	**35,524**	**1,257**	**0**	**36,781**	**36,781**
Pescas Central	14,325	5,893	17	20,235			20,235	20,235
Pescas provincial	10,162	4,617	510	15,289	1,257		16,546	16,546
Institutes	**13,861**	**2,954**	**0**	**16,815**	**6,504**	**153,596**	**23,319**	**176,915**
Central				0			0	0
Escola de Pesca	2,858	520		3,378			3,378	3,378
Fundo Fomento Pesqueiro				0	6,504	153,596	6,504	160,100
Inst. Investigação Pesqueira	5,896	1,501		7,397			7,397	7,397
Pesca Pequena Escala				0			0	0
Instituto de Desenv. da Pesca	5,107	933		6,040			6,040	6,040
Inst. Inspecção do Pescado				0			0	0
Instituto Aquacultura				0			0	0
Provincial				0			0	0
Inst. Investigação Pesqueira				0			0	0
Pesca Pequena Escala				0			0	0
Inspecção do Pescado				0			0	0
Districts: 50% of internal								

a/ For the years 2001-2004, the column "int

Source: 2001-2007 Conta Geral do Estado,

Table 5: Actual expenditure by institutional and other classifications

Thousand MTn

	2006							
	Pessoal	B&S	Other recurrent	Total recurrent	Internal invest	External invest	*Total internal*	*Total*
Agriculture	**242,334**	**42,095**	**36,255**	**320,683**	**103,178**	**1,032,855**	**423,861**	**1,456,717**
MINAG	**207,532**	**36,144**	**3,196**	**246,873**	**87,103**	**907,013**	**333,976**	**1,240,989**
MINAG central	50,675	6,358	2,574	59,608	25,564	656,211	85,172	741,383
MINAG provincial	156,857	29,786	622	187,265	61,539	250,801	248,804	499,605
Institutes	**34,801**	**5,951**	**33,059**	**73,811**	**16,075**	**125,843**	**89,885**	**215,728**
Instituto Algodão	2,712			2,712	0	14,991	2,712	17,703
Incajú	1,295	400	32,985	34,680	0	2,839	34,680	37,519
Instituto Açúcar	1,603	857	8	2,468	0	16,905	2,468	19,373
IIAM (all research up to 2004)	29,192	4,693	66	33,951	16,075	91,107	50,026	141,133
Instituto Investigação Vet.				0				
Instituto Produção Animal				0				
Cepagri				0			0	0
Formação terras e cartografia				0			0	0
CN Cartografia e teledatação				0			0	0
FDA				0			0	0
				0			0	0
Pescas	**48,801**	**18,474**	**872**	**68,147**	**24,725**	**247,486**	**92,872**	**340,358**
MinPescas	**29,871**	**10,796**	**844**	**41,511**	**540**	**2,361**	**42,051**	**44,411**
Pescas Central	13,258	4,512	801	18,571	0	2,361	18,571	20,932
Pescas provincial	16,612	6,284	43	22,940	540		23,479	23,479
Institutes	**18,930**	**7,678**	**28**	**26,636**	**24,185**	**245,125**	**50,822**	**295,947**
Central				0			0	0
Escola de Pesca	3,231	3,339	6	6,576			6,576	6,576
Fundo Fomento Pesqueiro			0	0	24,185	245,125	24,185	269,311
Inst. Investigação Pesqueira	6,607	1,877	14	8,499			8,499	8,499
Pesca Pequena Escala	6,176	1,547	9	7,731			7,731	7,731
Instituto de Desenv. da Pesca				0				
Inst. Inspecção do Pescado	2,916	915	0	3,830			3,830	3,830
Instituto Aquacultura				0			0	0
Provincial				0			0	0
Inst. Investigação Pesqueira				0			0	0
Pesca Pequena Escala				0			0	0
Inspecção do Pescado				0			0	0
Districts: 50% of internal								

a/ For the years 2001-2004, the column "int

Source: 2001-2007 Conta Geral do Estado,

Table 5: Actual expenditure by institutional and other classifications

Thousand MTn

	2007							
	Pessoal	B&S	Other recurrent	Total recurrent	Internal invest	External invest	Total internal	Total
Agriculture	**311,020**	**72,919**	**33,407**	**417,347**	**92,936**	**1,120,691**	**510,282**	**1,630,974**
MINAG	**271,096**	**51,710**	**7,569**	**330,376**	**84,018**	**1,087,813**	**414,394**	**1,502,206**
MINAG central	61,408	17,509	6,073	84,989	29,161	786,335	114,151	900,486
MINAG provincial	209,689	34,201	1,496	245,387	54,856	301,477	300,243	601,720
Institutes	**37,336**	**21,209**	**25,838**	**84,383**	**8,918**	**32,879**	**93,301**	**126,179**
Instituto Algodão	2,588	0	0	2,588			2,588	2,588
Incajú	1,829	15,155	25,598	42,582			42,582	42,582
Instituto Açúcar				0			0	0
IIAM (all research up to 2004)	33,866	5,205	237	39,308	8,918	32,879	48,225	81,104
Instituto Investigação Vet.				0			0	0
Instituto Produção Animal				0			0	0
Cepagri	1,641	849	3	2,493			2,493	2,493
Formação terras e cartografia				0			0	0
CN Cartografia e teledatação				0			0	0
FDA				0			0	0
				0			0	0
Pescas	**68,447**	**24,522**	**423**	**93,392**	**19,581**	**137,586**	**112,973**	**250,558**
MinPescas	**39,394**	**15,000**	**375**	**54,769**	**3,222**	**0**	**57,991**	**57,991**
Pescas Central	18,412	5,280	264	23,956			23,956	23,956
Pescas provincial	20,982	9,719	111	30,813	3,222		34,035	34,035
Institutes	**29,053**	**9,523**	**48**	**38,623**	**16,358**	**137,586**	**54,981**	**192,567**
Central				0			0	0
Escola de Pesca	4,422	3,864	10	8,296			8,296	8,296
Fundo Fomento Pesqueiro				0	16,358	137,586	16,358	153,944
Inst. Investigação Pesqueira	10,208	2,700	15	12,923			12,923	12,923
Pesca Pequena Escala	6,740	1,788	13	8,541			8,541	8,541
Instituto de Desenv. da Pesca				0			0	0
Inst. Inspecção do Pescado	7,683	1,170	10	8,863			8,863	8,863
Instituto Aquacultura				0			0	0
Provincial				0			0	0
Inst. Investigação Pesqueira				0			0	0
Pesca Pequena Escala				0			0	0
Inspecção do Pescado				0			0	0
Districts: 50% of internal								

a/ For the years 2001-2004, the column "int

Source: 2001-2007 Conta Geral do Estado,

Table 5: Actual expenditure by institutional and other classifications

Thousand MTn

	2008o							
	Pessoal	B&S	Other recurrent	Total recurrent	Internal invest	External invest	Total internal	Total
Agriculture	**393,111**	**75,968**	**18,064**	**487,143**	**506,234**	**1,496,650**	**993,377**	**2,490,027**
MINAG	**321,371**	**58,834**	**17,347**	**397,552**	**338,100**	**1,479,899**	**735,652**	**2,215,551**
MINAG central	104,660	29,926	12,415	147,001	58,129	976,090	205,130	1,181,220
MINAG provincial	216,711	28,907	4,932	250,551	279,972	503,808	530,523	1,034,331
Institutes	**71,740**	**17,134**	**716**	**89,590**	**168,134**	**16,751**	**257,725**	**274,476**
Instituto Algodão	8,620	8,339	25	16,984			16,984	16,984
Incajú	3,692	1,081		4,773	140,490		145,263	145,263
Instituto Açúcar				0			0	0
IIAM (all research up to 2004)	56,431	6,651	674	63,756	27,644	16,751	91,400	108,151
Instituto Investigação Vet.				0			0	0
Instituto Produção Animal				0			0	0
Cepagri	2,997	1,063	18	4,077			4,077	4,077
Formação terras e cartografia				0			0	0
CN Cartografia e teledatação				0			0	0
FDA				0			0	0
							0	0
Pescas	**128,037**	**55,452**	**11,410**	**194,899**	**170,323**	**667,436**	**365,222**	**1,032,658**
MinPescas	**67,901**	**24,474**	**11,108**	**103,482**	**24,218**	**9,779**	**127,700**	**137,480**
Pescas Central	34,495	8,972	7,533	51,000	12,337		63,337	63,337
Pescas provincial	33,406	15,502	3,575	52,483	11,881	9,779	64,363	74,143
Institutes	**60,137**	**30,978**	**302**	**91,417**	**146,105**	**657,656**	**237,522**	**895,178**
Central				0			0	0
Escola de Pesca	6,758	4,100	21	10,879			10,879	10,879
Fundo Fomento Pesqueiro				0	146,105	657,656	146,105	803,761
Inst. Investigação Pesqueira	15,436	3,410	75	18,921			18,921	18,921
Pesca Pequena Escala				0			0	0
Instituto de Desenv. da Pesca	9,844	1,900	22	11,766			11,766	11,766
Inst. Inspecção do Pescado	12,221	6,400	65	18,686			18,686	18,686
Instituto Aquacultura				0			0	0
Provincial				0			0	0
Inst. Investigação Pesqueira	15,491	13,321	79	28,890			28,890	28,890
Pesca Pequena Escala				0			0	0
Inspecção do Pescado	388	1,847	40	2,275			2,275	2,275
				0			0	0
Districts: 50% of internal				0	692,647		**692,647**	**692,647**

a/ For the years 2001-2004, the column "int

Source: 2001-2007 Conta Geral do Estado,

Table 5: Actual expenditure by institutional and other classifications

Thousand MTn

	2009o							
	Pessoal	B&S	Other recurrent	Total recurrent	Internal invest	External invest	Total internal	Total
Agriculture	**479,759**	**158,275**	**191,012**	**829,046**	**955,626**	**1,501,528**	**1,784,672**	**3,286,200**
MINAG	**340,297**	**95,560**	**16,905**	**452,762**	**754,762**	**1,314,731**	**1,207,524**	**2,522,255**
MINAG central	106,667	30,350	11,703	148,719	446,013	607,309	594,733	1,202,042
MINAG provincial	233,631	65,210	5,203	304,043	308,748	707,422	612,791	1,320,214
Institutes	**99,462**	**34,016**	**806**	**134,284**	**200,864**	**186,797**	**335,148**	**521,945**
Instituto Algodão	9,531	18,534	55	28,120		15,391	28,120	43,510
Incajú	4,098	1,147	60	5,304	165,782	14,268	171,087	185,355
Instituto Açúcar				0			0	0
IIAM (all research up to 2004)	64,752	7,051	674	72,477	34,176	138,402	106,653	245,055
Instituto Investigação Vet.				0			0	0
Instituto Produção Animal				0			0	0
Cepagri	3,333	1,127	18	4,478			4,478	4,478
Formação terras e cartografia	10,540	692		11,232		8,057	11,232	19,289
CN Cartografia e teledatação	7,208	5,465		12,673	906	10,679	13,579	24,258
FDA	**40,000**	**28,700**	**173,300**	**242,000**			**242,000**	**242,000**
				0			0	0
Pescas	**176,025**	**87,651**	**14,003**	**277,679**	**169,939**	**831,411**	**447,618**	**1,279,029**
MinPescas	**75,429**	**28,045**	**4,977**	**108,451**	**13,159**	**2,595**	**121,611**	**124,206**
Pescas Central	38,278	9,512	1,222	49,012			49,012	49,012
Pescas provincial	37,151	18,533	3,755	59,439	13,159	2,595	72,599	75,194
Institutes	**100,596**	**59,606**	**9,026**	**169,227**	**156,780**	**828,816**	**326,008**	**1,154,823**
Central				0			0	0
Escola de Pesca	7,512	4,347	21	11,881			11,881	11,881
Fundo Fomento Pesqueiro				0	156,780	828,816	156,780	985,596
Inst. Investigação Pesqueira	17,117	3,616	75	20,807			20,807	20,807
Pesca Pequena Escala	10,936	2,015	22	12,973			12,973	12,973
Instituto de Desenv. da Pesca				0			0	0
Inst. Inspecção do Pescado	14,414	7,536	65	22,015			22,015	22,015
Instituto Aquacultura	12,157	5,800		17,957			17,957	17,957
Provincial				0			0	0
Inst. Investigação Pesqueira	16,863	14,208	83	31,154			31,154	31,154
Pesca Pequena Escala	21,187	20,127	8,718	50,031			50,031	50,031
Inspecção do Pescado	409	1,959	42	2,410			2,410	2,410
				0			0	0
Districts: 50% of internal				0	706,965		706,965	706,965

a/ For the years 2001-2004, the column "int

Source: 2001-2007 Conta Geral do Estado,

Table 6A
Ministry of Agriculture (MINAG) - Expenditures in Arcolris: Economic Classification (total)

thousand MT

	2001	2002	2003	2004	2005	2006	2007
A. Actual Expenditures	475,245	780,738	1,027,486	904,476	980,203	1,258,382	1,315,875
Current expenditures:	**368,811**	**547,468**	**784,891**	**765,501**	**890,840**	**1,064,073**	**1,193,103**
salaries and remunerations	134,132	166,159	230,905	274,603	303,220	312,501	353,380
other personnel expenses	46,134	82,016	72,987	66,674	77,324	94,815	128,090
goods	57,621	104,954	159,799	153,910	174,075	261,030	319,441
services	116,373	179,301	307,697	255,010	307,792	368,843	322,696
transfers to public administrations	2,268	1	61	3,067	0	0	0
other current transfers (to families & other)	11,649	14,450	12,733	10,054	28,429	26,883	40,728
other current expenditure (incl. year end bal.)	635	588	710	2,184	0	0	28,769
Capital expenditures:	**106,434**	**233,269**	**242,595**	**138,975**	**89,363**	**194,309**	**122,772**
construction	26,338	40,218	46,289	43,721	20,787	66,157	55,291
machinery and equipment	62,039	172,153	156,965	82,115	53,407	82,891	48,333
other capital goods	5,030	15,616	24,124	6,211	13,876	27,387	14,324
capital transfers	13,027	5,283	15,217	6,106	1,292	12,036	4,800
other capital expenditure	0	0	0	823	0	5,838	24

Table 6B

Ministry of Agriculture (MINAG) - Expenditures in Arcolris: Economic Classification (central level)

thousand MT

	2001	2002	2003	2004	2005	2006	2007
A. Actual Expenditures	230,662	368,702	519,698	430,380	456,869	615,833	541,920
Current expenditures:	**201,387**	**261,363**	**419,526**	**381,802**	**417,245**	**518,515**	**496,513**
salaries and remunerations	47,631	49,591	84,224	97,065	106,474	106,659	122,971
other personnel expenses	25,897	41,817	22,191	23,923	24,887	35,510	59,293
goods	27,633	44,756	82,172	79,384	82,836	140,004	123,692
services	87,531	114,321	224,059	172,959	180,782	213,722	154,503
transfers to public administrations	2,268	0	42	3,067	0	0	0
other current transfers (to families & other)	10,194	10,737	6,644	5,019	22,265	22,621	36,055
other current expenditure (incl. year end bal.)	234	141	194	385	0	0	0
Capital expenditures:	**29,275**	**107,339**	**100,172**	**48,578**	**39,624**	**97,317**	**45,407**
construction	4,612	4,198	5,018	9,145	10,972	26,661	19,735
machinery and equipment	11,116	85,224	69,342	33,103	27,370	51,680	16,442
other capital goods	561	12,634	10,596	225	290	6,941	4,430
capital transfers	12,986	5,283	15,217	6,106	992	12,036	4,800
other capital expenditure	0	0	0	0	0	0	0

Table 6C

Ministry of Agriculture (MINAG) - Expenditures in Arcolris: Economic Classification (provincial level)

thousand MT

	2001	2002	2003	2004	2005	2006	2007
A. Actual Expenditures	244,583	412,036	507,788	474,096	523,334	642,550	773,955
Current expenditures:	**167,424**	**286,105**	**365,366**	**383,699**	**473,595**	**545,558**	**696,590**
salaries and remunerations	86,501	116,568	146,680	177,537	196,746	205,842	230,409
other personnel expenses	20,237	40,199	50,797	42,751	52,437	59,305	68,797
goods	29,989	60,198	77,627	74,526	91,239	121,027	195,749
services	28,842	64,979	83,639	82,050	127,009	155,121	168,193
transfers to public administrations	0	1	19	0	0	0	0
other current transfers (to families & other)	1,455	3,712	6,089	5,035	6,164	4,262	4,673
other current expenditure (incl. year end bal.)	401	447	515	1,799	0	0	28,769
Capital expenditures:	**77,159**	**125,931**	**142,422**	**90,397**	**49,739**	**96,992**	**77,365**
construction	21,726	36,020	41,271	34,575	9,815	39,495	35,555
machinery and equipment	50,923	86,929	87,624	49,013	26,037	31,212	31,891
other capital goods	4,469	2,982	13,528	5,986	13,586	20,447	9,895
capital transfers	41	0	0	0	300	0	0
other capital expenditure	0	0	0	823	0	5,838	24

Table 7A
Ministry of Agriculture (MINAG) - Expenditures in Arcolris: Functional Classification (total)

thousand MT

	2001	2002	2003	2004	2005	2006	2007
A. Actual Expenditures 1/	475,245	780,738	1,026,737	904,476	980,203	1,258,382	1,315,787
"Funcionamento" budget 2/	150,393	130,776	172,881	210,087	252,842	272,124	361,403
"Investimento" budget:	324,852	649,962	853,857	694,389	727,361	986,259	954,384
1 Extension	10,600	17,926	20,260	17,355	41,530	71,036	87,854
2 Research	33,218	45,925	30,688	71,838	121,013	113,935	97,039
3 Production support	14,181	35,013	31,381	30,006	71,344	135,212	169,087
4 Marketing and credit support							
5 Land rights and management	18,746	30,232	27,362	16,145	16,208	43,853	17,095
6 Irrigation	10,007	11,757	13,744	6,732	5,568	34,798	4,821
7 Plant protection [SubComp.of Production S.]							
8 Livestock services	4,442	8,087	5,683	6,024	10,087	79,203	47,505
9 Forestry	13,720	7,209	7,660	8,867	9,308	19,962	28,751
10 Fisheries							
11 Institutional support	72,476	180,950	320,653	183,356	115,434	165,167	147,880
12 Common expenses (and non-planned activities)	147,462	312,863	396,426	354,067	336,869	323,091	354,353

This table includes data from the "funcionamento" as well as "investimento" budgets.

1/ Data from Arcolris - functional classification estimated on the basis of the functional allocations of investment projects as indicated in Table 18.
2/ No functional classification is available for the "funcionamento" budget.
3/ Actual spending as recorded in Arcolris has been adjusted by redistributing the "common expenditures" recorded in the various provinces on the basis of the correspoding functional (component) percentages initially planned in the PAAO of each province.

Sources:
- MINAG/ DAF - Arcolris data
- Functional allocations fo investment projects (Table 18)
- PAAOs for the various provinces and central MINAG level.

Table 7B
Ministry of Agriculture (MINAG) - Expenditures in Arcolris: Functional Classification (central level)

thousand MT

	2001	2002	2003	2004	2005	2006	2007
A. Actual Expenditures: 1/	230,662	368,702	519,698	430,380	456,869	615,833	541,920
"Funcionamento" budget 2/	66,113	42,842	70,628	90,888	107,345	97,650	129,335
"Investimento" budget:	164,549	325,860	449,070	339,493	349,523	518,183	412,586
1 Extension	10,337	17,926	20,260	17,339	8,111	9,504	12,680
2 Research	33,218	35,392	30,274	71,838	120,920	111,840	96,249
3 Production support	14,181	35,013	31,381	29,827	68,612	107,374	79,155
4 Marketing and credit support							
5 Land rights and management	18,746	30,232	27,341	15,951	16,208	43,853	17,095
6 Irrigation	10,007	11,656	7,431	6,503	5,041	18,349	0
7 Plant protection [SubComp.of Production S.]							
8 Livestock services	4,381	8,087	5,683	6,021	7,563	67,350	36,829
9 Forestry	13,712	7,209	7,660	8,867	9,047	13,568	26,267
10 Fisheries							
11 Institutional support	59,967	180,345	319,040	183,146	114,022	146,345	144,311
12 Common expenses (and non-planned activities)	0	0	0	0	0	0	0

This table includes data from the "funcionamento" as well as "investimento" budgets.

1/ Data from Arcolris - functional classification estimated on the basis of the functional allocations of investment projects as indicated in Table 18.
2/ No functional classification is available for the "funcionamento" budget.
3/ Actual spending as recorded in Arcolris has been adjusted by redistributing the "common expenditures" recorded in the various provinces on the basis of the correspoding functional (component) percentages initially planned in the PAAO of each province.

Sources:
- MINAG/ DAF - Arcolris data
- Functional allocations fo investment projects (Table 18)
- PAAOs for the various provinces and central MINAG level.

Table 7C
Ministry of Agriculture (MINAG) - Expenditures in Arcolris: Functional Classification (provincial level)

thousand MT

	2001	2002	2003	2004	2005	2006	2007
A. Actual Expenditures 1/	244,583	412,036	507,039	474,096	523,334	642,550	773,866
"Funcionamento" budget 2/	84,280	87,934	102,253	119,200	145,497	174,474	232,068
"Investimento" budget:	160,303	324,102	404,786	354,897	377,838	468,076	541,798
1 Extension	263	0	0	16	33,419	61,532	75,174
2 Research	0	10,532	414	0	94	2,095	790
3 Production support	0	0	0	179	2,733	27,839	89,932
4 Marketing and credit support							
5 Land rights and management	0	0	21	194	0	0	0
6 Irrigation	0	101	6,313	229	527	16,450	4,821
7 Plant protection [SubComp.of Production S.]							
8 Livestock services	61	0	0	3	2,524	11,853	10,676
9 Forestry	7	0	0	0	262	6,394	2,484
10 Fisheries							
11 Institutional support	12,509	606	1,613	210	1,412	18,822	3,569
12 Common expenses (and non-planned activities)	147,462	312,863	396,426	354,067	336,869	323,091	354,353
B. Planned Expenditures - Initial budget allocations 1/	234,434	458,297	654,930	780,389	467,190	610,280	1,046,873
"Funcionamento" budget 2/	76,893	82,811	140,311	199,246	141,507	113,184	177,898
"Investimento" budget:	157,541	375,487	514,620	581,144	325,683	497,097	868,976
1 Extension	29,047	79,923	43,439	79,908	38,985	46,104	72,995
2 Research	0	42,863	32,134	61,523	0	0	85,293
3 Production support	13,764	23,662	32,097	53,768	21,534	42,859	77,382
4 Marketing and credit support							
5 Land rights and management	12,468	24,742	17,918	26,966	14,205	23,255	40,546
6 Irrigation	0	0	8,985	21,524	4,278	5,618	12,311
7 Plant protection [SubComp.of Production S.]							
8 Livestock services	27,433	45,775	44,167	73,032	39,199	48,140	77,694
9 Forestry	18,158	29,776	30,884	47,884	20,562	36,905	52,647
10 Fisheries							
11 Institutional support	56,671	128,746	304,996	216,538	186,920	294,215	450,108

This table includes data from the "funcionamento" as well as "investimento" budgets.

1/ Data from Arcolris - functional classification estimated on the basis of the functional allocations of investment projects as indicated in Table 18.

2/ No functional classification is available for the "funcionamento" budget.

3/ Actual spending as recorded in Arcolris has been adjusted by redistributing the "common expenditures" recorded in the various provinces on the basis of the correspoding functional (component) percentages initially planned in the PAAO of each province.

Sources:
- MINAG/ DAF - Arcolris data
- Functional allocations fo investment projects (Table 18)
- PAAOs for the various provinces and central MINAG level.

Table 8: Small-scale Irrigation Project (SSIP)

thousand MT

	2001	2002	2003	2004	2005	2006	2007
A. Actual Expenditures							
Small Scale Irrigation Project (SSIP)	**0**	**15,861**	**18,607**	**31,948**	**80,901**	**63,350**	**73,099**
domestic	0	981	1,848	1,857	1,937	2,995	1,845
external (ADB)	0	14,881	16,759	30,090	78,964	60,354	71,254
Irrigation Development	*0*	*0*	*1,175*	*7,441*	*39,318*	*26,001*	*40,211*
domestic							
external (ADB)			1,175	7,441	39,318	26,001	40,211
Technology Tranfer	*0*	*1,081*	*2,289*	*0*	*10,978*	*6,493*	*10,301*
domestic							
external (ADB)		1,081	2,289		10,978	6,493	10,301
Direct Farmers Support	*0*	*0*	*0*	*2,256*	*13,443*	*10,549*	*4,801*
domestic							
external (ADB)				2,256	13,443	10,549	4,801
Operations Management	*0*	*11,618*	*9,578*	*12,004*	*12,151*	*13,192*	*11,202*
domestic							
external (ADB)		11,618	9,578	12,004	12,151	13,192	11,202
Institutional Support	*0*	*3,162*	*5,565*	*10,247*	*5,010*	*7,115*	*6,584*
domestic		981	1,848	1,857	1,937	2,995	1,845
external (ADB)		2,182	3,717	8,390	3,073	4,120	4,739
Financing Facility Agreement	**0**	**0**	**0**	**0**	**0**	**1,743**	**0**
domestic							
external	0	0	0	0	0	1,743	0
HIV/AIDS Activities	**0**	**0**	**0**	**0**	**0**	**623**	**0**
domestic							
external						623	
Integrated Programme for Agricultural Development (PIDA)	**0**	**0**	**0**	**42,612**	**64,645**	**60,961**	**74,639**
domestic	0	0	0	0	0	0	0
external (Italy)	0	0	0	42,612	64,645	60,961	74,639
Institutional Development	*0*	*0*	*0*	*13,368*	*3,335*	*8,085*	*2,374*
domestic							
external (Italy)				13,368	3,335	8,085	2,374
Agricultural Public Services	*0*	*0*	*0*	*5,154*	*6,315*	*21,917*	*3,262*
domestic							
external (Italy)				5,154	6,315	21,917	3,262
Irrigation	*0*	*0*	*0*	*3,034*	*9,823*	*12,295*	*21,681*
domestic							
external (Italy)				3,034	9,823	12,295	21,681
Forestry	*0*	*0*	*0*	*3,663*	*33,715*	*10,514*	*46,460*
domestic							
external (Italy)				3,663	33,715	10,514	46,460
Program Implementation Unit	*0*	*0*	*0*	*17,393*	*11,457*	*8,151*	*862*
domestic							
external (Italy)				17,393	11,457	8,151	862

Table 9
Irrigation Projects outside MINAG - Ministry of Public Works and Housing (MPOH) & Chokwé Hydraulic Company (HICEP)

thousand MT

	2002	2003	2004	2005	2006	2007
A. Actual Expenditures	299,121	271,107	435,363	975,186	520,481	482,306
domestic	34,860	34,919	43,536	97,519	52,048	34,309
external	264,260	236,188	391,826	877,667	468,432	447,997
Massingir Dam & Smallhold. Agric.Rehab	**26,499**	**38,670**	**396,944**	**932,783**	**366,343**	**214,890**
domestic	2,650	3,867	39,694	93,278	36,634	21,489
external (ADB)	23,849	34,803	357,250	839,504	329,709	193,401
Chokwé Irrigation Scheme	**272,621**	**232,437**	**38,418**	**42,403**	**154,137**	**267,416**
domestic	32,210	31,052	3,842	4,240	15,414	12,820
external	240,411	201,385	34,576	38,163	138,724	254,596
Pour mémoire (actual expenditures):						
Irrigation expenditure MINAG/ Arcolris	11,656	14,868	19,201	9,035	23,168	6,724
Small Scale Irrigation Projet (SSIP)	15,861	18,607	31,948	80,901	63,350	73,099
Integrated Program for Agricultural Development (PIDA) 2/			3,034	9,823	12,295	21,681
other off-budget projects from ODAMOZ				14,786	16,550	9,506
GRAND TOTAL IRRIGATION SUB-SECTOR	326,638	304,582	489,545	1,089,730	635,843	593,316

1/ including Massingir dam and Xai-Xai irrigation scheme
2/ irrigation component only

Sources:
- Estimates based on data from ADB, Massingir and Chokwé projects units.
- Pour mémoire: irrigation expenditure MINAG/Arcolris from Table 7A - SSIP and PIDA from Table 8

Summary of all irrigation projects

thousand MT

	2002	2003	2004	2005	2006	2007
MADSAR	26,499	38,670	396,944	932,783	366,343	214,890
Chókwè	272,621	232,437	38,418	42,403	154,137	267,416
SSIP	15,861	18,607	31,948	80,901	63,350	73,099
MINAG Arcolris	11,656	14,868	19,201	9,035	23,168	6,724
PIDA	0	0	3,034	9,823	12,295	21,681
other off-budget	0	0	0	14,786	16,550	9,506
Total	**326,638**	**304,582**	**489,545**	**1,089,730**	**635,843**	**593,316**

Table 10
Rural Development (INDER/DPNDR) - Sources of Funds and Investment Projects in Agriculture

thousand MT

	2001	2002	2003	2004	2005	2006	2007
A. Actual Expenditures	4,476	38,672	37,162	58,361	116,563	135,732	134,971
"Funcionamento" budget					n.a.	n.a.	n.a.
"Investimento" budget:	4,476	38,672	37,162	58,361	116,563	135,732	134,971
domestic	0	0	4,500	3,745	4,500	0	0
external	4,476	38,672	32,662	54,616	112,063	135,732	134,971
[1/] Small Holder Agricultural Development Project	0	0	0	0	0	0	20,029
domestic							
external (World Bank)							20,029
[2/] Market Support Program (PAMA)	4,476	38,672	37,162	58,361	116,563	135,732	114,942
domestic			4,500	3,745	4,500		
external (IFAD)	4,476	38,672	32,662	54,616	112,063	135,732	114,942
[3/] Rural Finance Support Program - DROPPED	0	0	0	0	6,792	45,475	97,820
domestic	0	0	0	0	0	0	0
external (IFAD/ADB)	0	0	0	0	6,792	45,475	97,820
Policy, Legislative & Institutional Support	*0*	*0*	*0*	*0*	*0*	*3,863*	*16,225*
domestic							
external						3,863	16,225
Innovation & Outreach Facility	*0*	*0*	*0*	*0*	*0*	*14,907*	*39,868*
domestic							
external						14,907	39,868
Support to Community-Based Financial Institutio	*0*	*0*	*0*	*0*	*0*	*160*	*0*
domestic							
external						160	0
FARE & Programme Management	*0*	*0*	*0*	*0*	*6,792*	*26,544*	*41,727*
domestic							
external					6,792	26,544	41,727

n.a. = information not available

Institutional responsibility for rural development activities has changed over time:
- (from 1994) till 1999, National Rural Development Institute (*Instituto Nacional para o Desenvolvimento Rural*, INDER)
- From 2000-2004, Ministry of Agriculture and Rural Development (MADER) - the "funcionamento" budget was included in MADER
- Since 2005, National Directorate for the Promotion of Rural Develpment (DNPDR), within the Ministry of Planning and Development (MPD)
  "Funcionamento" budget is not included, as it is available only for the whole Ministry (MPD) and not separately for DNPDR
  "Investimento" budget is estimated on the basis of identification of rural development projects overseen by INDER/MADER/DNPDR

[1/] This project includes various activities (capacity building for local communities and associations, rural extension, etc.) - located in the provinces of Sofala, Zambezia, Tete
[2/] This project includes market information systems, capacity building support to associations, rural roads - located in the provinces of Maputo, Cabo Delgado, Niassa
[3/] **This project has been dropped from totals - does not fit the definition for "agriculture"**

Sources:
- Ministry of Finance (OE; Conta Geral do Estado)
- List of projects from MPD/DNPDR (on-budget projects of MPD which relate to agriculture)

Table 11
Ministry of Fisheries (MP) - Sources of Funds

thousand MT

	2000	2001	2002	2003	2004	2005	2006	2007
A: Actual Expenditures	16,190	27,407	90,456	60,527	205,397	202,145	283,014	500,734
"Funcionamento" budget	8,868	17,953	26,312	30,435	53,745	51,612	67,586	92,251
"Investimento" budget:	7,322	9,454	64,145	30,093	151,652	150,533	215,428	408,483
domestic						80,196	99,736	103,446
external						70,337	115,693	305,037
o/w: Central level	15,294	22,368	84,895	54,251	193,929	183,896	258,778	466,699
"Funcionamento" budget	7,972	14,562	21,168	24,760	42,782	36,323	44,646	61,438
"Investimento" budget:	7,322	7,806	63,727	29,491	151,147	147,573	214,132	405,261
domestic	n.a.	n.a.	n.a.	29,491	66,415	78,940	99,196	100,224
external	n.a.	n.a.	n.a.		84,732	68,633	114,936	305,037
o/w: Provincial level	896	5,039	5,561	6,276	11,468	18,249	24,236	34,035
"Funcionamento" budget	896	3,391	5,143	5,674	10,963	15,289	22,940	30,813
"Investimento" budget:	0	1,648	418	601	505	2,960	1,296	3,222
domestic	n.a.	n.a.	n.a.	n.a.	n.a.	1,256	540	3,222
external	n.a.	n.a.	n.a.	n.a.	n.a.	1,704	757	0

n.a. = information not available

The Ministry of Fisheries was established in 2000 (between 1994-1999, fisheries were under the Ministry of Agriculture and Fisheries, MAP)
Data from Ministry of Fisheries include the Fund for the Promotion of Fishing (*Fundo de Fomento Pesqueiro* , FFP)

Sources:
- Ministry of Finance
- Ministry of Fisheries

Table 12

Zambezi Region Development Authority (GPZ) - Sources of Funds and Investment Projects

thousand MT

	2003	2004	2005	2006	2007
A. Actual Expenditures - agriculture	16,664	2,958	3,743	8,881	12,206
"Funcionamento" budget - agriculture	n.a.	n.a.			
total GPZ	27,379	36,967			
o/w agriculture	n.a.	n.a.			
"Investimento" budget - agriculture	16,664	2,958	3,743	8,881	12,206
domestic					
total GPZ	78,470	104,712	132,915	137,276	140,091
o/w agriculture	16,664	2,958	3,743	8,881	12,206
external					
total GPZ	0	0	0	0	0
o/w agriculture	0	0	0	0	0
Aquisição de alfaias agricolas	2,853	0	0	713	0
domestic	2,853			713	
external					
Aquisição de Tractores	8,175	0	0	0	0
domestic	8,175				
external					
Aquisiçao de Motobombas	3,282	0	0	0	0
domestic	3,282				
external					
Agro Processing	638	0	966	297	1,535
domestic	638		966	297	1,535
external					
Multiplicação de Semente e material Vegetativo	672	200	184	113	456
domestic	672	200	184	113	456
external					
Fomento da Piscicultura	3	0	0	0	0
domestic	3				
external					
Bancos Forrageiros, Reflorestamento e Educação Amt	235	426	220	560	1,869
domestic	235	426	220	560	1,869
external					
Programa de Produção de Arroz Semente	333	123	128	197	1,253
domestic	333	123	128	197	1,253
external					
Fomento de Fruteiras	92	0	0	93	0
domestic	92			93	
external					
Fomento Pecuário e de Tracção Animal	245	1,116	762	1,172	3,477
domestic	245	1,116	762	1,172	3,477
external					
Apoio às Associações Agricolas	73	98	80	154	0
domestic	73	98	80	154	
external					
Promoção de Feiras e Mercados Agricolas	56	0	170	150	0
domestic	56		170	150	
external					
Reflorestamento e Educação Ambiental	8	0	0	0	0
domestic	8				
external					
Aquisição de Gado Bovino para Reprodução	0	470	336	0	0
domestic		470	336		
external					
Fomento de Piscicultura	0	87	219	257	83
domestic		87	219	257	83
external					
Fomento de Apicultura	0	167	35	0	0

Table 12

Zambezi Region Development Authority (GPZ) - Sources of Funds and Investment Projects

thousand MT

	2003	2004	2005	2006	2007
domestic		167	35		
external					
Reabilitação de Tanques Carraciclas	**0**	**166**	**117**	**504**	**675**
domestic		166	117	504	675
external					
Construção e Reabilitação de Represas para Irrigação	**0**	**105**	**0**	**1,443**	**0**
domestic		105		1,443	
external					
Apoio as Campanhas de Vacinação de Gado	**0**	**0**	**0**	**0**	**660**
domestic					660
external					
Estudos e Reabilitação de Regadios	**0**	**0**	**400**	**2,290**	**810**
domestic			400	2,290	810
external					
Fomento do uso das técnicas de adubação orgânica	**0**	**0**	**18**	**0**	**40**
domestic			18		40
external					
Programas de emergência face à seca	**0**	**0**	**85**	**0**	**0**
domestic			85		
external					
Programa de Desenvolvimento Integrado da Serra Cho	**0**	**0**	**0**	**55**	**250**
domestic				55	250
external					
Aquisição e Montagem de Motobombas para Sistemas	**0**	**0**	**0**	**602**	**463**
domestic				602	463
external					
Produção de Semente de Gergelim	**0**	**0**	**0**	**74**	**0**
domestic				74	
external					
Projecto agro-pecuário de Mafupa Ya Nzou	**0**	**0**	**0**	**0**	**10**
domestic					10
external					
Postos Agro-Zootécnicos	**0**	**0**	**0**	**0**	**511**
domestic					511
external					
Aquisição e Distribuição de Bombas Pedestrais aos Ca	**0**	**0**	**25**	**207**	**116**
domestic			25	207	116
external					

n.a. = Information not available

GPZ initiated its activities in 2003. Only identified "investimento" projects related to agriculture have been included in the Agriculture PER analysis

Since 2005, total GPZ spending is included under "investimento" in government budget documents.

Sources:

- Ministry of Finance (OE; Conta Geral do Estado)
- List of projects from GPZ (on-budget projects of GPZ which relate to agriculture and are implemented by GPZ's Division of Community Development)

Table 13
Zambezi Region Development Authority (GPZ) - Investment Projects: functional and geographic characteristics

Project Name	Geographic allocation	Functional allocation
Aquisição de alfaias agrícolas	Vale do Zambeze	Production support
Aquisição de Tractores	Vale do Zambeze (Tete, Manica, Sofala e Zambézia)	Production support
Aquisiçao de Motobombas	Vale do Zambeze (Tete, Manica, Sofala e Zambézia)	Irrigation
Agro Processing	Zambézia (Mopeia, Nante) e Tete (Moatize e Angónia)	
Multiplicação de Semente e material Vegetativo	Tete (Angónia e Tsangano)	Production support
Fomento da Piscicultura	Tete (Macanga)	Fishery
Bancos Forrageiros, Reflorestamento e Educação Ambiental	Tete (Cidade Tete, Changara, Chitima e Cahora Bassa)	Forest
Programa de Produção de Arroz Semente	Zambézia (Mopeia, Nante) e Tete (Moatize e Angónia)	Production support
Fomento de Fruteiras	Sofala (Gorongoza)	Production support
Fomento Pecuário e de Tracção Animal	Tete (Mutarara, Cahora Bassa, Magoe, Zobue), Sofala	Veterinary Services
Apoio ás Associações Agrícolas	Tete (Moatize) e Zambézia (Mopeia)	Extension
Promoção de Feiras e Mercados Agrícolas	Tete (Tsangano)	Extension
Reflorestamento e Educação Ambiental	Tete (Angónia e Tsangano)	Forest
Aquisição de Gado Bovino para Reprodução	Sofala (Gorongoza)	Veterinary Services
Fomento de Piscicultura	Tete (Macanga), Zambézia (Mocuba)	Fishery
Fomento de Apicultura	Tete (Angónia)	Extension
Reabilitação de Tanques Carracicidas	Tete (Inhangoma)	Veterinary Services
Construção e Reabilitação de Represas para Irrigação	Tete (Moatize)	Irrigation
Apoio as Campanhas de Vacinação de Gado	Vale do Zambeze (Tete, Manica, Sofala e Zambézia)	Veterinary Services
Estudos e Reabilitação de Regadios	Vale do Zambeze (Tete, Manica, Sofala e Zambézia)	Irrigation
Fomento do uso das técnicas de adubação orgânica	Tete (Angónia e Tsangano)	Production support
Programas de emergência face à seca	Tete (Doa-Mutarara)	Production support
Programa de Desenvolvimento Integrado da Serra Choa	Manica (Bárue)	Production support
Aquisição e Montagem de Motobombas para Sistemas de Irrigação	Zambézia (Mopeia, Nante)	Irrigation
Prdução de Semente de Gergelim	Tete (Mutarara)	Production support
Projecto agro-pecuário de Mafupa Ya Nzou	Tete (Moatize)	Production support
Postos Agro-Zootécnicos	Sofala (Marromeu)	Production support
Aquisição e Distribuição de Bombas Pedestrais aos Camponeses	Tete (Mutarara)	Irrigation

Source: GPZ

Table 14
Agricultural Development Fund (FDA) - Expenditures by Economic Classification

thousand MT

	2001	2002	2003	2004	2005	2006	2007
A. Actual Expenditures - "Investimento Budget"	22,151	31,694	44,417	65,986	96,982	217,104	281,813
Current expenditures:	**15,970**	**20,776**	**33,534**	**47,024**	**67,633**	**112,449**	**104,593**
salaries and remunerations	5,834	8,238	10,589	17,022	18,483	36,314	36,047
other personnel expenses	1,916	3,856	5,185	2,939	6,123	9,227	6,035
goods	1,303	1,367	1,229	2,135	3,238	5,893	10,350
services	4,551	5,199	6,784	8,693	10,606	18,686	32,023
transfers to public administrations 1/	2,268	2,056	9,508	16,061	28,842	42,112	19,801
other current transfers (to families & other)	97	60	239	174	341	216	337
other current expenditure (incl. year end bal.)	0	0	0			0	
Capital expenditures:	**6,181**	**10,918**	**10,883**	**18,962**	**29,350**	**104,655**	**177,220**
construction	0	0	0			3,973	2,361
machinery and equipment	146	539	3,687	6,433	4,036	9,038	6,660
other capital goods	76	0	0			1,437	1,506
capital transfers 2/	5,959	7,002	5,316	7,931	21,257	70,333	103,408
other capital expenditure		3,377	1,880	4,598	4,056	19,876	63,284
D. Composition of actual expenditures (%)	100%	100%	100%	100%	100%	100%	100%
Current expenditures:	**72.1%**	**65.6%**	**75.5%**	**71.3%**	**69.7%**	**51.8%**	**37.1%**
salaries and remunerations	26.3%	26.0%	23.8%	25.8%	19.1%	16.7%	12.8%
other personnel expenses	8.7%	12.2%	11.7%	4.5%	6.3%	4.2%	2.1%
goods	5.9%	4.3%	2.8%	3.2%	3.3%	2.7%	3.7%
services	20.5%	16.4%	15.3%	13.2%	10.9%	8.6%	11.4%
transfers to public administrations 1/	10.2%	6.5%	21.4%	24.3%	29.7%	19.4%	7.0%
other current transfers (to families & other)	0.4%	0.2%	0.5%	0.3%	0.4%	0.1%	0.1%
other current expenditure (incl. year end bal.)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Capital expenditures:	**27.9%**	**34.4%**	**24.5%**	**28.7%**	**30.3%**	**48.2%**	**62.9%**
construction	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.8%
machinery and equipment	0.7%	1.7%	8.3%	9.7%	4.2%	4.2%	2.4%
other capital goods	0.3%	0.0%	0.0%	0.0%	0.0%	0.7%	0.5%
capital transfers 2/	26.9%	22.1%	12.0%	12.0%	21.9%	32.4%	36.7%
other capital expenditure	0.0%	10.7%	4.2%	7.0%	4.2%	9.2%	22.5%

1/ Some revenues are collected by FDA for redistribution to other public administrations - provincial administrations and other institutions present their plans to FDA.
2/ Corresponds to credit line to individual farmers

The FDA (*Fundo de Desenvolvimento Agrário*) results from merging in 2006 of two previously existing funds: Agricultural Promotion Fund (FFA, *Fundo de Fomento Agrário*) and Irrigation Development Fund (FDHA, *Fundo de Desenvolvimento da Hidráulica Agrícola*).
Earlier figures refer to the FFA.
Funding is entirely domestic and considered under the "investimento" budget

Source:
- FDA

Other off-budget projects in Agriculture - ODAMOZ database

This table includes off-budget projects found in the ODAMOZ database, excluding the projects that have already been taken into account in previous tables by ministry or other institution.

A. Disbursement data converted in MT '000

					Exchange rate			Average
					0.025	0.027	0.028	0.0269
	Donor/ Agency	Project Name	Currency	Total Budget	Disbursed Funds			Function
					2005	2006	2007	
1	ADB	FAMILY SECTOR INCOME ENHANCEMENT PROJECT	10^3 Mt	539,646	68,197	66,874	56,891	production support
2	AUSTRIA	PROMEC - Economic Promotion of Smallholder Farming Units	10^3 Mt	55,211	17,268	7,675	9,594	production support
3	AUSTRIA	Support to NGO Hilfswerk Austria Project -Seguranca da Posse da Terra e Desenvolvimento sustentavel no sul da Provincia de Sofala - EU Grant ONG-PVD/2005/095-459	10^3 Mt	17,783	0	4,874	0	land rights & management
4	BELGIUM	Belgian Survival Fund - Food Security in Manica	10^3 Mt	186,499	21,645	40,677	26,862	production support
5	BELGIUM	Belgian Survival Fund - Resilient Livelihoods and healthy lifestyles in the context of HIV/AIDS	10^3 Mt	122,798	8,519	47,776	39,909	production support
6	BELGIUM	Belgian Survival Fund - Food Security in Manica - FOS	10^3 Mt	11,973	0	0	9,594	production support
7	BELGIUM	Belgian Survival Fund - Food Security in Northern Mozambique	10^3 Mt	44,898	8,697	9,901	7,943	irrigation
8	CANADA	SLAP Sustainable Livelihoods and Agriculture	10^3 Mt	146,520	13,941	19,667	20,447	production support
9	CANADA	Sustainable and Effective Economic Development (SEED)	10^3 Mt	183,150	0	18,694	29,458	production support
10	DENMARK	ASPS II - Land Use Fund	10^3 Mt	28,425	0	0	2,492	land rights & management
11	DENMARK	ASPS II - Private Sector Dev.	10^3 Mt	274,779	0	28,377	38,066	production support
12	DENMARK	ASPS II - Other Support to Agriculture	10^3 Mt	17,032	0	6,523	938	production support
13	EC	GTZ; MZM 14.256.300.000, MICRO-PROJECTS REGIONAL PROGRAMMES	10^3 Mt	29,312	2,110	0	0	AGRICULTURE
14	EC	Strategic Planning for Agricultural Water Management in Mozambique	10^3 Mt	9,609	0	6,309	0	irrigation
15	EC	ADPP - Farmers' Clubs for Forests - Promoting Sustainable Natural Resource Management in and around Quirimbas Park	10^3 Mt	11,473	0	0	5,976	forestry

	Donor/ Agency	Project Name	Currency	Total Budget	Disbursed Funds			Function
					2005	2006	2007	
16	EC	Audit and Evaluation of the Foreign Facilities for Budget Support, 2003-2005 Food Security Programme	10^3 Mt	7,041	3,549	0	0	institutional support
17	EC	IBF - Study of the Institutional framework for decentralisation in the agricultural sector in Mozambique	10^3 Mt	6,574	0	0	3,944	institutional support
18	EC	IM VALLEFLOR-PROJECTO DE DESENVOLVIMENTO AGRO-PECUARIO DE MAGUDE, MAPUTO	10^3 Mt	27,342	0	2,734	0	livestock services
19	EC	CIES-DESENVOLVIMENTO DA PRODUCAO DE CHA EM MOSSURIZE, MANICA	10^3 Mt	19,439	0	731	0	production support
20	EC	GV CIVILE-PROGRAMA DE SUPORTE AOS PROCESSOS PRODUTIVOS E DE COMERCIALIZACÃO DA INDUSTRIA DE CAJU NA REGIÃO SUL DO MOCAMBIQUE	10^3 Mt	22,779	0	3,961	0	extension
21	EC	HILFSWERK AUSTRIA, SEGURANÇA DA POSSE DA TERRA E DESENVOLVIMENTO SUSTENTÁVEL NO SUL DA PROVÍNCIA DE SOFALA, MOÇAMBIQUE	10^3 Mt	25,405	0	6,948	3,979	land rights & management
22	FAO	FAO Norway Programme, Forestry Component	10^3 Mt	3,207	0	672	1,988	forestry
23	FAO	Strategic Planning for Irrigation in Mozambique: Consolidation of the National Irrigation Policy and Strategy (and support for its implementation)	10^3 Mt	11,190	0	0	4,740	institutional support
24	FAO	Expansion of Farmer Field Schools Program in Eastern and Southern Africa	10^3 Mt	3,711	0	1,804	1,129	extension
25	FAO	Support to SPFS Water Control Component: Rehabilitation of Small-scale Irrigation Schemes that have been Damaged by Floods and Droughts	10^3 Mt	6,305	114	0	1,299	irrigation
26	FAO	National Special Programme for Food Security	10^3 Mt	91,242	13,254	14,887	13,145	extension
27	FAO	Securing the Livelihoods of rural Orphans and Vulnerable	10^3 Mt	25,928	0	0	709	production support
28	FAO	Assistance to Control African Swine Fever	10^3 Mt	6,877	0	735	2,448	livestock services
29	FAO	Assistance to Agricultural Policy and Strategies in Mozambique	10^3 Mt	4,939	0	0	4,049	institutional support
30	FINLAND	Forestry Resources Management	10^3 Mt	313,828	23,588	0	0	forestry
31	FRANCE	Projecto de relance do sector do Anacárdio	10^3 Mt	188,034	27,826	5,109	38,420	production support
32	FRANCE	Projecto de Reabilitação do Perímetro hidro-agrícola do Chokwé	10^3 Mt	168,847	5,793	0	0	irrigation
33	ITALY	Agriculture, Forestry and Forest Protection in Zambézia (Ngo Alisei)	10^3 Mt	20,627	0	0	1,539	forestry

	Donor/ Agency	Project Name	Currency	Total Budget	Disbursed Funds			Function
					2005	2006	2007	
34	ITALY	Istitutional Support to the Commercial Sector in Agriculture	10^3 Mt	68,804	21,084	5,271	0	institutional support
35	ITALY	Assistance to Boane irrigation system (NGO Movimondo)	10^3 Mt	31,422	182	340	264	irrigation
36	ITALY	Women training in agriculture and cooperative, social and health areas (Ngo Promond)	10^3 Mt	29,497	7,529	5,789	333	institutional support
37	ITALY	Support to local fisheries	10^3 Mt	121,224	0	0	54,411	fishing
38	ITALY	Production of Sea-weeds Kappaphicus Alvarezii for Sustainable Livelihood in Nampula (ngo Gruppo Missioni Asmara-GMA)	10^3 Mt	32,937	229	6,034	5,563	research
39	ITALY	Cashew multiplication and diffusion (ngo MAGIS)	10^3 Mt	18,060	0	0	8,000	production support
40	ITALY	FAO-Mozambique, National Program for Food Security (PAN II)	10^3 Mt	105,118	15,270	68,127	0	extension
41	JAPAN	Integrated Agricultural development Project for Small Scale Farmers in Chokwe Irrigation Scheme	10^3 Mt	70,857	3,190	0	20,784	research & extension
42	NORWAY	Soybean Promotion	10^3 Mt	14,874	8,214	0	0	extension
43	NORWAY	Soyabean Plantation	10^3 Mt	99,900	0	0	19,092	extension
44	PORTUGAL	Mozambique Flora Study	10^3 Mt	2,368	324	98	0	institutional support
45	PORTUGAL	Post-emergency assistance to Mozambique - Agriculture and Cattle breeding	10^3 Mt	182,263	0	0	0	production support
46	PORTUGAL	Categorization of secondary forestry species in Mozambique	10^3 Mt	2,138	668	0	0	research
47	PORTUGAL	Incentives - Fosterage of an oleaginous culture in the provinces of Sofala and Manica	10^3 Mt	3,746	0	0	0	production support & extension
48	PORTUGAL	Incentives - Analysis Study of the food crop production sector in Mozambique and its main evolution tendencies	10^3 Mt	1,745	0	0	0	research
49	PORTUGAL	Programme for 'Sustainable Extension of GAPI'- MOZ - Cabinet of Support to Promotion of Industrial Property	10^3 Mt	5,838	0	3,084	2,754	production support
50	PORTUGAL	Agrarian Development Project in Mumemo	10^3 Mt	565	0	0	565	forestry
51	SPAIN	Creation of a methodology for socio-economic development district programes in Cabo Delgado	10^3 Mt	2,455	0	0	2,455	institutional support
52	SPAIN	GEN.CATALUNYA. FUND: RURAL USE OF NATURAL RESOURCES IN MUTARARA	10^3 Mt	3,454	0	0	0	land rights & management

	Donor/ Agency	Project Name	Currency	Total Budget	Disbursed Funds			Function
					2005	2006	2007	
53	SPAIN	GEN.CATALONYA. STRENGTHENING OF RURAL COMMUNITY IN INHAMBANE	10^3 Mt	2,686	0	0	0	production support
54	SPAIN	Wharf on IBO Island	10^3 Mt	9,594	0	0	9,594	production support
55	SWEDEN	Community Land Use Fund	10^3 Mt	17,268	0	4,605	4,605	land rights & management
56	SWEDEN	Capacity dev SAKSS	10^3 Mt	12,050	0	0	8,980	institutional support
57	UK	Community Land Use Fund	10^3 Mt	110,345	632	16,384	27,511	land rights & management
58	UNDP	Fishery Laboratory Equipment	10^3 Mt	3,507	0	3,447	0	fishing
59	USAID	USAID-Rural Incomes Program (Project Assistance)	10^3 Mt	1,656,701	202,312	417,199	305,201	production support
60	USAID	Rural Incomes Program (Program Assistance)	10^3 Mt	134,310	134,310	0	0	production support
61	USAID	Increased Rural Incomes (Project Assistance)	10^3 Mt	2,152,878	36,515	0	0	production support
62	USAID	USAID-PL 480	10^3 Mt	2,042,844	237,729	272,112	243,316	production support
		Total	10^3 Mt		**882,690**	**1,097,418**	**1,038,986**	
		of which						
		USAID	10^3 Mt		610,866	689,311	548,517	
		Other donors	10^3 Mt		271,825	408,107	490,469	
		USAID in percent	percent		69%	63%	53%	
		Irrigation	10^3 Mt		14,786	16,550	9,506	

B. Disbursement data in USD '000 (ODAMOZ)

	Donor/ Agency	Project Name	Currency	Total Budget	Disbursed Funds			Function
					2005	2006	2007	
1	ADB	FAMILY SECTOR INCOME ENHANCEMENT PROJECT	US$	20,089,552	2,538,806	2,489,552	2,117,910	production support
2	AUSTRIA	PROMEC - Economic Promotion of Smallholder Farming Units	US$	2,055,357	642,857	285,714	357,143	production support
3	AUSTRIA	Support to NGO Hilfswerk Austria Project -Seguranca da Posse da Terra e Desenvolvimento sustentavel no sul da Provincia de Sofala - EU Grant ONG-PVD/2005/095-459	US$	662,000	0	181,429	0	land rights & management
4	BELGIUM	Belgian Survival Fund - Food Security in Manica	US$	6,942,857	805,800	1,514,286	1,000,000	production support
5	BELGIUM	Belgian Survival Fund - Resilient Livelihoods and healthy lifestyles in the context of HIV/AIDS	US$	4,571,429	317,129	1,778,571	1,485,714	production support
6	BELGIUM	Belgian Survival Fund - Food Security in Manica - FOS	US$	445,714	0	0	357,143	production support
7	BELGIUM	Belgian Survival Fund - Food Security in Northern Mozambique	US$	1,671,429	323,749	368,571	295,714	irrigation
8	CANADA	SLAP Sustainable Livelihoods and Agriculture	US$	5,454,545	519,003	732,150	761,170	production support
9	CANADA	Sustainable and Effective Economic Development (SEED)	US$	6,818,182	0	695,931	1,096,659	production support
10	DENMARK	ASPS II - Land Use Fund	US$	1,058,201	0	0	92,769	land rights & management
11	DENMARK	ASPS II - Private Sector Dev.	US$	10,229,277	0	1,056,381	1,417,093	production support
12	DENMARK	ASPS II - Other Support to Agriculture	US$	634,049	0	242,844	34,934	production support
13	EC	GTZ; MZM 14.256.300.000, MICRO-PROJECTS REGIONAL PROGRAMMES	US$	1,091,221	78,547	0	0	AGRICULTURE
14	EC	Strategic Planning for Agricultural Water Management in Mozambique	US$	357,720	0	234,867	0	irrigation
15	EC	ADPP - Farmers' Clubs for Forests - Promoting Sustainable Natural Resource Management in and around Quirimbas Park	US$	427,109	0	0	222,487	forestry
16	EC	Audit and Evaluation of the Foreign Facilities for Budget Support, 2003-2005 Food Security Programme	US$	262,131	132,113	0	0	institutional support
17	EC	IBF - Study of the Institutional framework for decentralisation in the agricultural sector in Mozambique	US$	244,731	0	0	146,839	institutional support
18	EC	IM VALLEFLOR-PROJECTO DE DESENVOLVIMENTO AGRO-PECUARIO DE MAGUDE, MAPUTO	US$	1,017,856	0	101,786	0	livestock services

	Donor/ Agency	Project Name	Currency	Total Budget	Disbursed Funds			Function
					2005	2006	2007	
19	EC	CIES-DESENVOLVIMENTO DA PRODUCAO DE CHA EM MOSSURIZE, MANICA	US$	723,650	0	27,211	0	production support
20	EC	GV CIVILE-PROGRAMA DE SUPORTE AOS PROCESSOS PRODUTIVOS E DE COMERCIALIZACÃO DA INDUSTRIA DE CAJU NA REGIÃO SUL DO MOCAMBIQUE	US$	848,001	0	147,454	0	extension
21	EC	HILFSWERK AUSTRIA, SEGURANÇA DA POSSE DA TERRA E DESENVOLVIMENTO SUSTENTÁVEL NO SUL DA PROVÍNCIA DE SOFALA, MOÇAMBIQUE	US$	945,743	0	258,657	148,127	land rights & management
22	FAO	FAO Norway Programme, Forestry Component	US$	119,400	0	25,000	74,000	forestry
23	FAO	Strategic Planning for Irrigation in Mozambique: Consolidation of the National Irrigation Policy and Strategy (and support for its implementation)	US$	416,581	0	0	176,453	institutional support
24	FAO	Expansion of Farmer Field Schools Program in Eastern and Southern Africa	US$	138,150	0	67,159	42,020	extension
25	FAO	Support to SPFS Water Control Component: Rehabilitation of Small-scale Irrigation Schemes that have been Damaged by Floods and Droughts	US$	234,723	4,250	0	48,362	irrigation
26	FAO	National Special Programme for Food Security	US$	3,396,702	493,419	554,211	489,359	extension
27	FAO	Securing the Livelihoods of rural Orphans and Vulnerable	US$	965,222	0	0	26,400	production support
28	FAO	Assistance to Control African Swine Fever	US$	256,000	0	27,350	91,125	livestock services
29	FAO	Assistance to Agricultural Policy and Strategies in Mozambique	US$	183,860	0	0	150,749	institutional support
30	FINLAND	Forestry Resources Management	US$	11,682,964	878,107	0	0	forestry
31	FRANCE	Projecto de relance do sector do Anacárdio	US$	7,000,000	1,035,893	190,193	1,430,264	production support
32	FRANCE	Projecto de Reabilitação do Perímetro hidro-agrícola do	US$	6,285,714	215,653	0	0	irrigation
33	ITALY	Agriculture, Forestry and Forest Protection in Zambézia (Ngo Alisei)	US$	767,870	0	0	57,280	forestry
34	ITALY	Istitutional Support to the Commercial Sector in Agriculture	US$	2,561,394	784,914	196,229	0	institutional support
35	ITALY	Assistance to Boane irrigation system (NGO Movimondo)	US$	1,169,773	6,791	12,674	9,821	irrigation
36	ITALY	Women training in agriculture and cooperative, social and health areas (Ngo Promond)	US$	1,098,106	280,274	215,501	12,394	institutional support
37	ITALY	Support to local fisheries	US$	4,512,829	0	0	2,025,557	fishing

	Donor/ Agency	Project Name	Currency	Total Budget	Disbursed Funds			Function
					2005	2006	2007	
38	ITALY	Production of Sea-weeds Kappaphicus Alvarezii for Sustainable Livelihood in Nampula (ngo Gruppo Missioni Asmara-GMA)	US$	1,226,157	8,541	224,630	207,080	research
39	ITALY	Cashew multiplication and diffusion (ngo MAGIS)	US$	672,324	0	0	297,806	production support
40	ITALY	FAO-Mozambique, National Program for Food Security (PAN II)	US$	3,913,249	568,456	2,536,190	0	extension
41	JAPAN	Integrated Agricultural development Project for Small Scale	US$	2,637,796	118,737	0	773,732	research & extension
42	NORWAY	Soybean Promotion	US$	553,719	305,785	0	0	extension
43	NORWAY	Soyabean Plantation	US$	3,719,008	0	0	710,744	extension
44	PORTUGAL	Mozambique Flora Study	US$	88,141	12,073	3,651	0	institutional support
45	PORTUGAL	Post-emergency assistance to Mozambique - Agriculture and Cattle breeding	US$	6,785,144	0	0	0	production support
46	PORTUGAL	Categorization of secondary forestry species in Mozambique	US$	79,599	24,857	0	0	research
47	PORTUGAL	Incentives - Fosterage of an oleaginous culture in the provinces of Sofala and Manica	US$	139,456	0	0	0	production support & extension
48	PORTUGAL	Incentives - Analysis Study of the food crop production sector in Mozambique and its main evolution tendencies	US$	64,959	0	0	0	research
49	PORTUGAL	Programme for 'Sustainable Extension of GAPI'- MOZ - Cabinet of Support to Promotion of Industrial Property	US$	217,347	0	114,807	102,540	production support
50	PORTUGAL	Agrarian Development Project in Mumemo	US$	21,023	0	0	21,023	forestry
51	SPAIN	Creation of a methodology for socio-economic development district programes in Cabo Delgado	US$	91,386	0	0	91,386	institutional support
52	SPAIN	GEN.CATALUNYA. FUND: RURAL USE OF NATURAL RESOURCES IN MUTARARA	US$	128,571	0	0	0	land rights & management
53	SPAIN	GEN.CATALONYA. STRENGTHENING OF RURAL COMMUNITY IN INHAMBANE	US$	100,000	0	0	0	production support
54	SPAIN	Wharf on IBO Island	US$	357,143	0	0	357,143	production support
55	SWEDEN	Community Land Use Fund	US$	642,857	0	171,429	171,429	land rights & management
56	SWEDEN	Capacity dev SAKSS	US$	448,571	0	0	334,286	institutional support
57	UK	Community Land Use Fund	US$	4,107,843	23,545	609,927	1,024,157	land rights & management
58	UNDP	Fishery Laboratory Equipment	US$	130,562	0	128,336	0	fishing
59	USAID	USAID-Rural Incomes Program (Project Assistance)	US$	61,674,448	7,531,519	15,531,165	11,361,792	production support
60	USAID	Rural Incomes Program (Program Assistance)	US$	5,000,000	5,000,000	0	0	production support

	Donor/ Agency	Project Name	Currency	Total Budget	Disbursed Funds			Function
					2005	2006	2007	
61	USAID	Increased Rural Incomes (Project Assistance)	US$	80,145,764	1,359,336	0	0	production support
62	USAID	USAID-PL 480	US$	76,049,500	8,850,000	10,130,000	9,058,000	production support
		Total	US$		**32,860,154**	**40,853,856**	**38,678,604**	
		of which						
		USAID	US$		22,740,855	25,661,165	20,419,792	
		Other donors	US$		10,119,299	15,192,691	18,258,812	
		USAID in percent	percent		69%	63%	53%	
		Irrigation	US$		550,443	616,112	353,897	

Source: ODAMOZ database

Table 18: Population by province, urban/rural, 2007 and 1997

2007

Province	*Total*	*Urban*	*Rural*	*% rural*	*% of total pop*	*% in total rural pop*
Niassa	1,178,117	290,725	887,392	75.3%	5.7%	6.2%
Cabo Delgado	1,632,809	356,506	1,276,303	78.2%	8.0%	9.0%
Nampula	4,076,642	1,118,672	2,957,970	72.6%	19.9%	20.8%
Zambezia	3,892,854	588,173	3,304,681	84.9%	19.0%	23.2%
Tete	1,832,339	260,934	1,571,405	85.8%	8.9%	11.0%
Manica	1,418,927	442,463	976,464	68.8%	6.9%	6.9%
Sofala	1,654,163	665,698	988,465	59.8%	8.1%	6.9%
Inhambane	1,267,035	285,554	981,481	77.5%	6.2%	6.9%
Gaza	1,219,013	379,699	839,314	68.9%	5.9%	5.9%
Maputo Prov	1,259,713	800,454	459,259	36.5%	6.1%	3.2%
Maputo Cde	1,099,102	1,099,102	0	0.0%	5.4%	0.0%
Total Mozambique	**20,530,714**	**6,287,980**	**14,242,734**	**69.4%**	**100.0%**	**100.0%**

1997

Province	*Total*	*Urban*	*Rural*	*% rural*	*% of total pop*	*% in total rural pop*
Niassa	756,287	174,300	581,987	77.0%	5.0%	5.4%
Cabo Delgado	1,287,814	216,944	1,070,870	83.2%	8.4%	9.9%
Nampula	2,975,747	743,638	2,232,109	75.0%	19.5%	20.6%
Zambezia	2,891,809	390,047	2,501,762	86.5%	18.9%	23.1%
Tete	1,144,604	168,292	976,312	85.3%	7.5%	9.0%
Manica	974,208	274,378	699,830	71.8%	6.4%	6.5%
Sofala	1,289,390	532,018	757,372	58.7%	8.4%	7.0%
Inhambane	1,123,079	220,319	902,760	80.4%	7.4%	8.3%
Gaza	1,062,380	262,228	800,152	75.3%	7.0%	7.4%
Maputo	806,179	505,858	300,321	37.3%	5.3%	2.8%
Maputo cidade	966,837	966,837		0.0%	6.3%	0.0%
Total Mozambique	**15,278,334**	**4,454,859**	**10,823,475**	**70.8%**	**100.0%**	**100.0%**

Sources:
2007: Preliminary results of the Census 2007 (total population per district)
Urban population: according to a list of population for xx cities and towns, 2007, kindly provided by Metier Lda.
1997: Official results of the Census 1997 (from CD provided by INE)

Table 19: Number of holdings per province, 2002-2007

Sum of Holding	Year						Rural pop per
	2002	2003	2004	2005	2006	2007	holding 2007
Niassa	172,832	178,533	182,279	186,025	203,806	212,335	4.2
Cabo Delgado	346,034	372,513	366,638	360,762	366,929	408,954	3.1
Nampula	674,801	663,072	697,567	732,062	736,043	752,129	3.9
Zambézia	721,830	761,120	763,252	765,384	776,815	805,332	4.1
Tete	274,391	273,257	280,600	287,942	304,228	333,747	4.7
Manica	214,196	228,714	220,788	212,861	241,048	274,293	3.6
Sofala	170,672	176,693	176,847	177,001	192,517	194,453	5.1
Gaza	224,152	215,323	234,085	252,847	230,983	239,882	4.1
Inhambane	253,875	260,872	269,121	277,370	262,848	317,255	2.6
Maputo	74,709	79,477	80,013	80,549	80,341	80,678	5.7
Maputo cidade							
Total Mozambique	3,127,492	3,209,574	3,271,189	3,332,803	3,395,558	3,619,058	

Source: Database underlying the TIA

Table 20: Agriculture (not including Fishing) GDP per Province, 2001-2006

GDP	Year					
million MT	2001	2002	2003	2004	2005	2006
Niassa	779.5	1,188.9	1,327.5	1,513.8	1,775.0	2,027.8
Cabo Delgado	1,347.9	2,039.4	2,301.7	2,576.1	3,006.3	3,764.7
Nampula	2,881.1	4,476.7	5,052.1	5,683.2	6,752.5	7,941.1
Zambézia	4,218.2	6,372.0	6,991.1	7,721.2	9,122.0	10,514.8
Tete	793.5	1,207.7	1,367.7	1,557.1	1,847.4	2,213.4
Manica	1,113.3	1,695.4	1,883.7	2,099.4	2,361.6	2,735.0
Sofala	1,302.2	1,966.4	2,167.2	2,445.3	2,770.9	3,256.8
Inhambane	1,285.0	1,929.1	2,029.5	2,833.2	3,568.9	4,562.8
Gaza	1,110.2	1,672.3	1,826.5	2,024.2	2,275.9	2,650.0
Maputo	615.4	934.1	1,030.8	1,148.9	1,320.4	1,638.9
Maputo cidade	17.0	25.8	28.6	32.1	37.0	46.6
Total Mozambique	15,463.3	23,507.8	26,006.5	29,634.5	34,837.8	41,351.8

Source: INE (data provided upon specific request)

Table 21: Actual Expenditure of Provincial Directorates for Agriculture

Source: Arco-Iris	thousand MT				percent			
	2005	**2006**	**2007**	**Average 2005-07**	**2005**	**2006**	**2007**	**Average 05-07**
Niassa	51,187	81,905	81,353	71,482	9.8%	12.7%	10.5%	11.1%
Cabo Delgado	40,708	56,163	103,914	66,928	7.8%	8.7%	13.4%	10.4%
Nampula	82,433	92,944	82,480	85,952	15.8%	14.5%	10.7%	13.3%
Zambezia	58,064	55,898	74,263	62,742	11.1%	8.7%	9.6%	9.7%
Tete	37,458	49,874	60,140	49,157	7.2%	7.8%	7.8%	7.6%
Manica	44,962	57,858	46,284	49,702	8.6%	9.0%	6.0%	7.7%
Sofala	45,017	71,586	71,462	62,689	8.6%	11.1%	9.2%	9.7%
Inhambane	71,391	68,958	114,194	84,848	13.6%	10.7%	14.8%	13.1%
Gaza	51,827	58,301	70,456	60,195	9.9%	9.1%	9.1%	9.3%
Maputo Province	40,286	47,597	63,070	50,318	7.7%	7.4%	8.1%	7.8%
Maputo City	0	1,465	6,338	2,601	0.0%	0.2%	0.8%	0.4%
Total Provinces (DPAs)	**523,334**	**642,550**	**773,955**	646,613	100.0%	100.0%	100.0%	100.0%

Source: Conta Geral do Estado	thousand MT				percent			
	2005	**2006**	**2007**	**Average 2005-07**	**2005**	**2006**	**2007**	**Average 05-07**
Niassa	40,547	50,474	62,050	51,023	8.8%	10.1%	10.3%	9.8%
Cabo Delgado	39,800	47,079	66,057	50,979	8.6%	9.4%	11.0%	9.8%
Nampula	62,052	65,473	66,334	64,620	13.4%	13.1%	11.0%	12.4%
Zambezia	50,993	45,927	47,025	47,982	11.0%	9.2%	7.8%	9.2%
Tete	34,939	36,283	49,868	40,363	7.6%	7.3%	8.3%	7.7%
Manica	41,807	41,663	42,535	42,002	9.0%	8.3%	7.1%	8.1%
Sofala	51,570	68,625	65,360	61,852	11.2%	13.7%	10.9%	11.9%
Inhambane	40,021	52,352	69,871	54,081	8.7%	10.5%	11.6%	10.4%
Gaza	49,127	44,752	58,516	50,798	10.6%	9.0%	9.7%	9.7%
Maputo Province	46,745	42,825	65,320	51,630	10.1%	8.6%	10.9%	9.9%
Maputo City	4,359	4,152	8,786	5,766	0.9%	0.8%	1.5%	1.1%
Total Provinces (DPAs)	**461,960**	**499,605**	**601,720**	521,095	100.0%	100.0%	100.0%	100.0%

Table 22: Provincial-level spending per rural capita

source: CGE

	Rural population 2007	Spending of DPAs, average 2005-07 a/	DPA spending per rural capita	Rank
		million MT	MT	
Niassa	887,392	51.0	57.5	4
C.Delgado	1,276,303	51.0	39.9	7
Nampula	2,957,970	64.6	21.8	9
Zambezia	3,304,681	48.0	14.5	10
Tete	1,571,405	40.4	25.7	8
Manica	976,464	42.0	43.0	6
Sofala	988,465	61.9	62.6	2
Inhambane	981,481	54.1	55.1	5
Gaza	839,314	50.8	60.5	3
Maputo Prov	459,259	51.6	112.4	1
Total	14,242,734	515.3	36.2	

Table 23: Provincial-level spending as of Agriculture GDP

	Agricultural GDP 2006	Spending of DPAs, average 2005-07 /a	Spending: % of Agric GDP	Rank
	million MT	million MT		
Niassa	2,178.3	51.0	2.3%	2
C.Delgado	4,113.3	51.0	1.2%	7
Nampula	8,647.5	64.6	0.7%	9
Zambezia	11,194.7	48.0	0.4%	10
Tete	2,455.4	40.4	1.6%	5
Manica	2,782.6	42.0	1.5%	6
Sofala	3,487.2	61.9	1.8%	3
Inhambane	4,827.9	54.1	1.1%	8
Gaza	2,885.1	50.8	1.8%	4
Maputo Prov	1,701.0	51.6	3.0%	1
Total	44,273.1	515.3	1.2%	

Data sources:

Spending of DPAs according to Public Accounts Data (Conta Geral do Estado)

Other parameters: see previous tables

Table 24: Provincial-level spending per rural capita, Budget 2009

	Recurrent Mt '000	Invest Mt '000	Total Mt '000	Total Mt/capita	Recurrent Mt/capita	Invest Mt/capita
Niassa	23,966	57,549	81,515	91.9	27.0	64.9
C.Delgado	32,679	133,824	166,503	130.5	25.6	104.9
Nampula	41,718	79,862	121,580	41.1	14.1	27.0
Zambezia	28,607	128,633	157,240	47.6	8.7	38.9
Tete	29,184	79,256	108,440	69.0	18.6	50.4
Manica	24,533	79,057	103,590	106.1	25.1	81.0
Sofala	32,741	130,826	163,567	165.5	33.1	132.4
Inhambane	26,748	130,318	157,066	160.0	27.3	132.8
Gaza	26,738	117,869	144,607	172.3	31.9	140.4
Maputo Prov	29,745	76,396	106,141	231.1	64.8	166.3
Total	296,660	1,013,589	1,310,249	92.0	20.8	71.2

Data Source for spending data: Approved budget 2009