

Trends in Public Agricultural Spending in Mozambique

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In recognition of the role of agriculture in Africa's broad-based economic development, African countries have committed themselves to implement an agricultural-led strategic framework – the Comprehensive Africa Agriculture Development Program (CAADP) developed by African Union's New Partnership for Africa's Development (AU/NEPAD) – for achieving a higher path of economic growth. The CAADP targets at least a 6 percent average annual growth in the agricultural sector.

ACHIEVING THE TARGETED ANNUAL GROWTH RATE

The evidence available (Fan and Pardey, 1998; Fan, Hazell and Thorat, 2000) suggests that it is imperative there should be a considerable increase in investments in the agricultural sector if this targeted growth rate is to be achieved, and facilitate the attainment of the first Millennium Development Goal (MDG) of halving 1990 poverty and hunger rates in Africa by 2015.¹ In particular, given that close to 75 percent of the African labor force is employed in agriculture, raising agricultural productivity and subsequently improving economic growth requires investments in productivity-enhancing agricultural technologies. To facilitate this, African countries signed the African Union (AU) Maputo Declaration² in 2003, in which they agreed to increase budgetary resources to the agricultural sector to at least 10 percent of their respective national budgets by 2008 for the implementation of the CAADP. Government spending in agriculture, in particular, is important as the key resources required to enhance agricultural growth are public goods, for example, research on technologies, markets, etc. Most often it is likely that the private sector would underinvest on such technologies (Haggblade, 2007).

CAADP IN MOZAMBIQUE

In the case of Mozambique, although initial attempts to adopt and implement the CAADP framework began as early as 2004, it is only since 2010 that significant and

consistent implementation of the CAADP framework has gathered momentum (Gêmo, 2011). This policy brief provides an overview of Mozambique's performance against the Maputo Declaration target and gives a broader picture of the type and amount of agricultural investments made by the public sector, including the government and its development partners. It also offers possible policy actions that could help boost the level of agricultural investments in Mozambique.

PUBLIC INSTITUTIONS AND THEIR ROLES IN THE AGRICULTURAL SECTOR

The agricultural sector in Mozambique is broadly defined to encompass crops, livestock, forestry and fisheries subsectors. Public resources allocated to this sector are channeled mainly through two ministries: the Ministry of Agriculture (MINAG) under which the crops, livestock and forestry subsectors fall, as well as the Ministry of Fisheries (MP - Portuguese acronym for *Ministério das Pescas*) under which the fisheries subsector falls. In line with decentralization objectives of the government, part of the allocation to agriculture goes directly from the Ministry of Finance to the provincial governments.

The MINAG and the MP promote development in the agricultural sector through: a) contributing to needed legislation and regulations; b) leading planning and implementation of public investments as well as performance assessment in the agricultural sector; c) coordinating relevant activities among key stakeholders; and d) providing core public services. Besides the MINAG and the MP, other ministries which contribute to the development of the agricultural sector include: (1) The Ministry of Planning and Development (MPD - Portuguese acronym for *Ministério da Planificação e Desenvolvimento*) – coordinating inter-sectoral planning; (2) The Ministry of Finance (MF - Portuguese acronym for *Ministério das Finanças*) – coordinating budget planning and being responsible for budget execution and control under approval by the National Parliament; (3) The Ministry of Industry and Trade (MIC - Portuguese acronym for *Ministério da Indústria e*

¹For more details on the Millennium Development Goals please refer to <http://www.un.org/millenniumgoals/>

²<http://www.nepad.org/nepad/knowledge/doc/1787/maputo-declaration>

Comércio) – coordinating and promoting trade and industry development; (4) The Ministry of Energy (ME - Portuguese acronym for *Ministério da Energia*) -- involved in policy dialogue for rural electrification and energy policy incentives for agriculture; and (5) The Ministry of Public Works and Housing (MOPH - Portuguese acronym for *Ministério das Obras Públicas e Habitação*) – which is responsible for public works, housing and other infrastructure development (roads, bridges and dams). Of these ministries, it is through the MIC that certain resources (for example, for construction of silos) are channeled to the agricultural sector, particularly to develop market facilities.

OVERVIEW OF THE BUDGET ALLOCATION AND EXPENDITURE

Table 1 provides an overview of the trends in the allocation of budget and expenditure between 2001 and 2009 for the agricultural and nonagricultural sectors. The approved budget for the nonagricultural sector grew at a higher annual average of 4.8 percent per annum between 2001 and 2009 compared to the 3.4 percent for the agricultural sector during the same period. In terms of actual expenditures, however, performance was higher in the agricultural sector: agricultural expenditure grew at a rate of 4.3 percent per annum compared to a growth of 3.8 percent per annum for the nonagricultural expenditures.

As is evident in Table 1, the total real budget allocation as well as the budget allocation towards the nonagricultural sectors is on a clear upward trend between 2001 and 2009. However, this is not the case for the agricultural budget allocation which tends to fluctuate from year-to-year. This suggests that the Government of Mozambique

not only faces challenges in increasing and maintaining the level of mobilized resources allocated to agriculture, but also in executing the approved agricultural budgets.

The performance of Mozambique in terms of achieving the Maputo Declaration target of allocating 10 percent of national budgetary resources to agriculture is tracked using expenditure as shown in Figure 1. The share of agriculture expenditure in total expenditure increased from 2 percent in 2001 to 8.5 percent in 2005, and then dropped to about 3.5 percent in 2009. Thus, in terms of expenditure, Mozambique failed to achieve the 10 percent target in the period 2001 to 2009. This is despite the fact that the budgetary allocations surpassed the 10 percent target in 2003, 2004 and 2007 (see Figure 1).

AN ANALYSIS OF THE SOURCES OF FUNDING

In general, the variation in the agricultural budget and expenditures coincides partly with either the introduction or end of key agricultural policies and/or agricultural projects. For example, the decline in 2005 coincided with the extension of the Agricultural Sector Development Program (Portuguese acronym, *PROAGRI I*)³ for the period 2005–2006. Some development partners (DPs) such as the World Bank, the US Agency for International Development (USAID) and the Government of the Netherlands opted for out of sector budget support in 2003/4, or to reduce their direct contribution to the PROAGRI. When the PROAGRI extension was completed, some other donors also abandoned sector budget support. For example, the PROAGRI II document intended to cover the 2007–2010

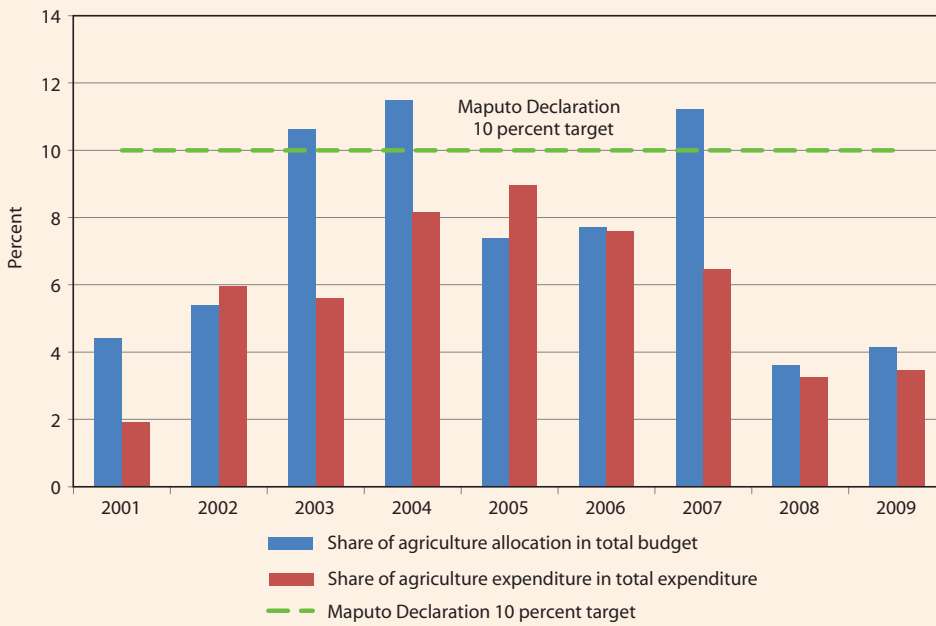
Table 1: Budget allocation and expenditure for agricultural and nonagricultural sectors in Mozambique, 2001–2009, (constant 2003 MZM million).

Year	Approved budget			Actual expenditure		
	Total	Agricultural	Nonagricultural	Total	Agricultural	Nonagricultural
2001	27,076	1,192	25,883	27,076	516	26,560
2002	29,822	1,610	28,212	29,821	1,779	28,041
2003	29,213	3,106	26,107	29,213	1,635	27,578
2004	28,607	3,287	25,320	28,607	2,333	26,274
2005	34,204	2,528	31,676	34,204	3,061	31,142
2006	36,931	2,851	34,080	36,939	2,806	34,133
2007	43,338	4,860	38,478	43,337	2,799	40,538
2008	59,852	2,163	57,689	46,868	1,525	45,343
2009	62,626	2,597	60,029	54,161	1,871	52,289
Annual average						
2003–2009	42,110	3,056	39,054	39,047	2,290	36,757
2001–2009	39,074	2,688	36,386	36,692	2,036	34,656
Average annual growth 2001–09 (percent/year)	4.70	3.44	4.77	3.75	4.30	3.75

Source: Authors' calculations based on Ministry of Finance, National Accounts (2001–2007) and MINAG/ Directorate of Administration and Finance (DAF) (2008–2009).

³PROAGRI I was the first agriculture sector budget support program implemented in Mozambique by the government in collaboration with several other development partners. It comprised eight investment components: research, extension, livestock, forestry, land management, irrigation, support to agriculture production and institutional development.

Figure 1—Share of agriculture budget allocation and expenditure in total in Mozambique (2001–2009).



Source: Authors' calculations based on the Ministry of Finance, National Accounts (2001–2007) and the MINAG/ Directorate of Administration and Finance (DAF) (2008–2009).

period was signed by 8 DPs out of the total of 15 that were initially involved in the PROAGRI I (1999–2004/06). Some of the DPs shifted to sector budget support while others opted to fund agriculture through the private sector and NGOs. The decline in budget allocation experienced in 2008 may be because of the completion of publicly-funded mega irrigation projects.⁴ This indicates that the variability of agricultural budget allocation and expenditure is partly explained by activities of donors or development partners in the sector.

An analysis of the contribution of internal and external sources of funding to total agricultural allocation and expenditure for the years 2008 and 2009, for which data was available, reveals that external sources dominated investment allocation and expenditure in agriculture. Investment allocation from external sources accounted for almost 81 percent of the total in 2008 and 69 percent in 2009. However, in terms of actual spending the proportion was lower, although it still accounted for the bulk of agricultural expenditures. External sources contributed around 75 and 62 percent to the total expenditure in 2008 and 2009, respectively.

Figure 1 shows that on average, actual agricultural spending fell below the approved budget, with approved agricultural budget growing faster than actual expenditure. This tendency for budget allocation to agriculture to deviate from actual expenditure indicates the discrepancy between planned activities and their actual execution. The observed differences between

the budgetary allocation and actual expenditure could also be due to, among other factors, non-disbursements of funds or delays in disbursement of funds from some DPs; delays in release of funds by the Ministry of Finance (possibly due to delays in accounting for previously disbursed funds to the sector); and the government's inability to capture and report spending on some projects directly funded by some DPs. In fact, budget execution rates by source of funding (internal vs. external) for the years 2008 and 2009 suggest that they are generally higher for internal funds than external ones, thereby lending support to the contention that delays in releasing of funds by donors/external sources derail budget execution rates. Additional funds injected

into the agricultural sector by the government through supplementary budgets to address problems due to drought and floods, could explain instances when actual spending exceeded the approved budget (2002 and 2005).

For example, the distribution of the Ministry of Agriculture budget (which excludes the fisheries subsector) indicates that budget execution rates seem to be higher at the provincial than at the central level, probably due to the fact that the bulk of agriculture activities take place in the provinces. In addition, government's capacity to execute budgets might be better at provincial and lower levels possibly due to the fact that at these levels investment spending is largely for salaries and operational purposes. Nevertheless, the central government often handles all capital investments on behalf of provinces and districts. This demonstrates the importance of decentralization of agricultural budgets to facilitate improvement in the execution of agricultural budgets.

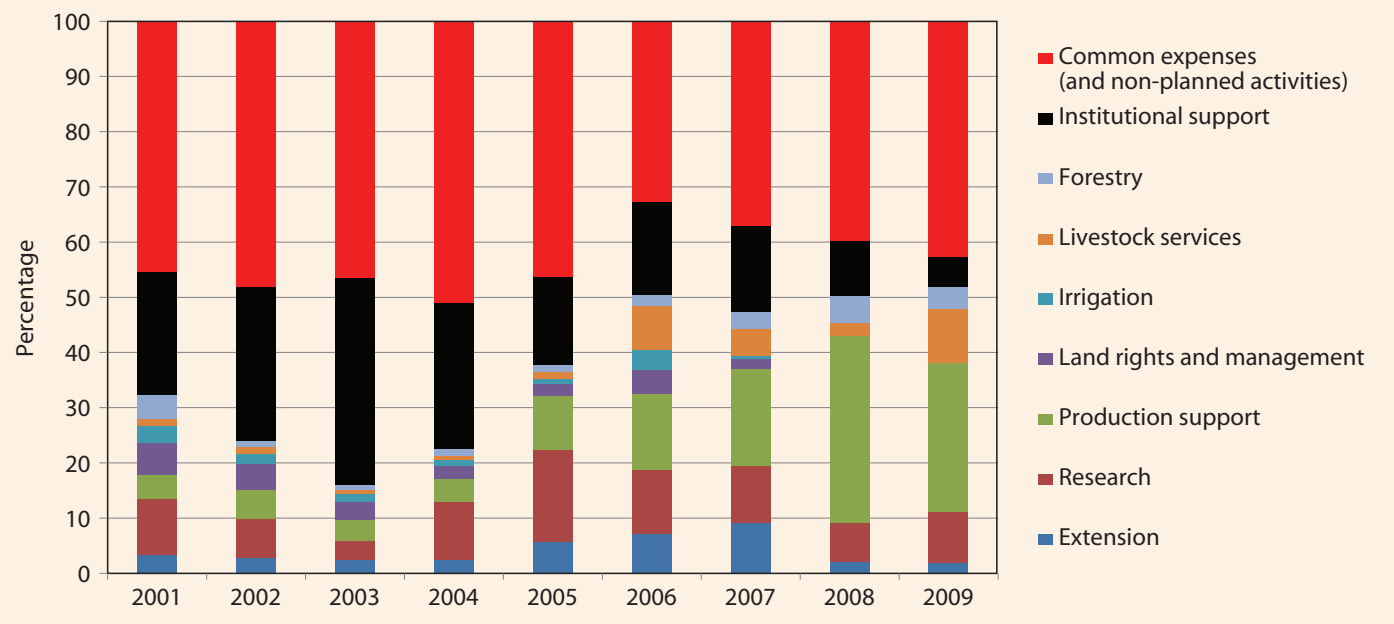
TRENDS IN INVESTMENT EXPENDITURE BY CORE FUNCTION

Besides common expenses⁵ (Portuguese, *despesas comuns*), expenditure on institutional and production support accounts for a significant proportion of the total investment expenditure by the MINAG (Figure 2). The

⁴The rehabilitation of the Massingir Dam (agricultural component) and the Chókwe Irrigation Scheme in 2006 and 2007 accounted for a sizeable chunk of the agriculture budget.

⁵Common expenses include expenditures that are not attached to a particular activity and include, for example, salaries, repair and maintenance of equipment. They are called common because they are used for more than one activity.

Figure 2—Investment expenditure shares in the total MINAG investment expenditure by core functions of the government (2001-2009).



Source: Authors' calculations based on the MINAG/ DAF (2001–2009).

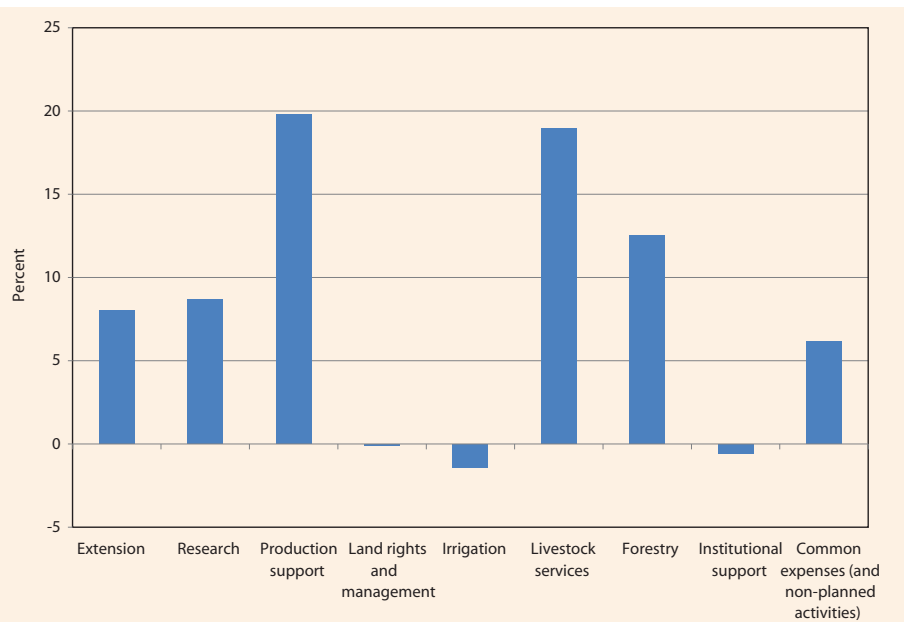
average share between 2001 and 2009 shows that institutional support (i.e., funds spent on coordinating functions of the MINAG) accounted for an average of 20 percent of the total investment expenditure by the ministry, followed by production support (i.e., funds spent on agricultural production processes, which includes, subsidies, emergency distribution of inputs and farm implements, etc.) at an average of 13 percent. The relatively high shares of expenditure on institutional support can be partly attributed to the priority given to institution building by strategies such as the PROAGRI I. Another reason could be that at the provincial level there were challenges in classifying expenditure during the first stages of using the internal accounting system in the MINAG. As a result, a lot of items were classified under institutional support. The function with the least share in total expenditure during this period was irrigation, with an average share of only 1 percent.

Average annual growth rates indicate that investment expenditures in production grew the fastest between 2001 and 2009, i.e., at an average of around 20 percent per annum (Figure 3). This is followed by the growth rate in the livestock services at 19 percent per annum. Although expenditure on institutional support accounted for the biggest share of total investment expenditure by the MINAG, Figure 3 shows that actual investment expenditure has been, on average, declining between 2001 and 2009, decreasing at an average

of 0.6 percent per annum. Investment expenditure on irrigation has experienced the biggest decline of 1.4 percent per annum.

Empirical research has suggested that investments in agricultural research and extension typically generate the highest returns than any form of agricultural spending. For example, returns to agricultural research average around 50 percent in Africa (Alston et al. 2000); however, returns vary from country to country owing to the diversity of farming systems and dependence on rain-fed production. In the case of Zambia, investments in root and tuber crop

Figure 3—Average annual growth in the share of investment expenditure by core government functions (2001-2009) (percent per annum).



Source: Authors' calculations based on the MINAG/ DAF (2001–2009).

research during the 1980s and 1990s led to new varietal releases of cassava and sweet potatoes, raising productivity in both crops (Govere et al. 2006).

The positive annual growth in extension and research in Mozambique between 2001 and 2009 is thus encouraging and should be upheld. The negative annual growth in irrigation expenditure,⁶ on the other hand, raises concern given that some parts of Mozambique are prone to droughts. In such a situation irrigation would significantly contribute to improving agricultural productivity. Given this scenario, a policy recommendation should be made to prioritize public (and non-state) investments in irrigation (and other water conservation and management technologies) with a view to minimize the dependence of agricultural growth on rainfall and general weather patterns. This will help smooth agricultural output and ensure sustained food security.

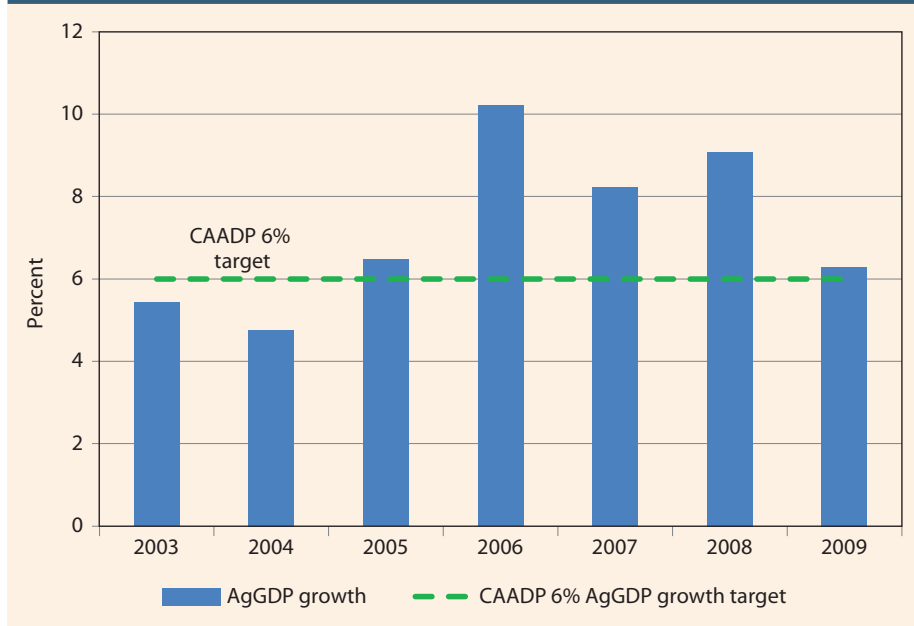
Figure 4 shows year-to-year changes in agricultural gross domestic product (AgGDP). Positive annual changes in AgGDP were experienced across all years between 2002 and 2009. The lowest year-to-year change in agricultural output was recorded in 2004 (4.76 percent), and the highest in 2006 (10.2 percent). With regard to the CAADPs 6 percent growth target, Mozambique is shown to have reached this target every year from 2005 to 2009. Furthermore, calculation of the average annual growth in AgGDP between 2001 and 2009 shows that output grew by an average annual growth rate of 3.17 percent.

Comparing trends in Figure 1 and Figure 4 suggests, though inconclusively, that public agricultural spending and AgGDP growth trend together. However, to determine the actual level of public spending required to achieve the 6 percent growth target requires rigorous general equilibrium modeling approaches, which take into account the complex interactions between spending by different actors (state and non-state actors) as well as interactions between all sectors in the economy.

CONCLUSIONS AND POLICY IMPLICATIONS

Over the last decade (2001–2009), Mozambique managed to attain the CAADP target of allocating 10 percent of the

Figure 4—Agricultural GDP and the CAADP 6 percent growth target, 2003–2009.



Source: Authors' calculations based on data from the National Institute of Statistics (INE) 2011.

total national budget to agriculture in 3 years—2003, 2004 and 2007. The annual average allocation to agriculture over the entire period was 7.3 percent. This indicates that meeting the CAADP target on a consistent basis remains a challenge for Mozambique.

- Capital investment spending, specifically by MINAG, remains relatively low when compared to spending on, for example, personnel emoluments as well as goods and services. This undermines the sustainability of the MINAG operations and calls for more emphasis to be put on capital expenditure.
- Budget allocations do not necessarily translate into actual disbursements and eventual spending. Between 2001 and 2009, for example, an average of 78 percent of funds allocated to agriculture was actually spent per year. The MINAG's budget execution rates are higher at the provincial level.

These findings underscore the need to formulate and implement policies and strategies to increase public expenditure on agriculture in Mozambique, so that the role of agriculture in facilitating overall economic growth and food security could be enhanced. In order to increase agricultural-related investments, the following policy actions, along with public institutions that should take leadership, responsibility and accountability for the actions, are recommended:

⁶ While it might seem like this contradicts with the statement on why actual spending exceeded the approved budget in 2002 and 2005, actually this is, not the case given that the annual growth in irrigation used here covers the period 2001 to 2009 and not just 2002 or 2005.

- Continually provide robust and impact-driven evidence that demonstrates the impact of agricultural investments not only on agricultural output, but also on attainment of socioeconomic targets such as the first Millennium Development Goal (MDG). Such evidence will help inform potential investors on the centrality of agricultural investments in the country's development and, thereby motivate and attract particularly the private sector, NGOs and donor investments, which are crucial in complementing government investments. (*Responsible institutions*: research departments at the MINAG, MPD, and the MF).
- Accelerate administrative decentralization of (agricultural) budgets and spending to local government levels not only with a view to increase transparency and accountability, but also to enhance budget execution rates and uplift responsibilities given to local levels overall. Decentralization needs to be accompanied by measures that improve the capacity of both central and local levels to spend approved budgets. (*Responsible institutions*: the Ministry of State Administration (MAE - Portuguese acronym for *Ministério da Administração Estatal*) and the MF).
- Develop mechanisms to hold governments, donors and/or external partners accountable to their commitments. This will improve timely disbursements of pledged funds, and

subsequently enhance budget execution rates and the effectiveness of investment support from donors and/or external partners. The development and implementation of such mechanisms could be informed by the Paris Declaration on aid effectiveness (OECD, 2005) and the Accra Agenda for Action (2008) that seek to improve effectiveness of aid. Both underscore the need for: *ownership* whereby developing countries assume effective leadership of the development of policies and strategies; *alignment* of donor support to local objectives and systems; *harmonization* under which donor countries coordinate, ensure transparency and share information to avoid duplication; *managing for results* whereby focus shifts to measurable development results; and *mutual accountability*, which ensures donors and partners are accountable for development results. Examples of proposed mechanisms include holding of joint annual agriculture sector reviews and implementation of a mutual accountability framework by both the government and external partners. In general, an open dialogue between the government and donors are encouraged as they could facilitate the identification of challenges that constrain the timely release of donor funds. In addition, an open dialogue could help both parties take stock of agricultural expenditure and investments and identify agricultural sector investment needs. (*Responsible institution*: the MPD).

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