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**Public Spending for Agriculture in Africa:
Trends and Composition**

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**Regional Strategic Analysis and Knowledge
Support System
(ReSAKSS)**

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About ReSAKSS

The Regional Strategic Analysis and Knowledge Support System (ReSAKSS) is an Africa-wide network of regional nodes supporting the Common Market of Eastern and Southern Africa (COMESA), the Economic Community of West African States (ECOWAS), and the Southern African Development Community (SADC), in collaboration with the International Food Policy Research Institute (IFPRI) and the Africa-based centers of the Consultative Group on International Agricultural Research (CGIAR), to facilitate the implementation of the AU/NEPAD's Comprehensive Africa Agriculture Development Programme (CAADP).

The ReSAKSS nodes offer high-quality analyses to improve policymaking, track progress, document success, and derive lessons for the implementation of the CAADP agenda. ReSAKSS is jointly funded by the United States Agency for International Development (USAID), the UK Department for International Development (DFID), and the Swedish International Development Cooperation Agency (SIDA). The nodes are implemented by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), the International Institute of Tropical Agriculture (IITA), the International Livestock Research Institute (ILRI) and the International Water Management Institute (IWMI), in collaboration with regional and national partners.

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1. INTRODUCTION

Public spending is one of the most effective instruments in promoting agricultural growth and reducing poverty in developing countries. Thus, monitoring public spending in agriculture is crucial. Agricultural growth also depends upon non-agriculture expenditures such as rural infrastructure, health and education. Since these investments may have differential productivity and poverty reduction effects, it is important to monitor spending in these sectors as well. This paper has two main objectives. The first objective is to define, measure and review the trends of government expenditures and their composition across different world regions over time with a particular focus on Africa. Aid for agriculture is also reviewed as it often accounts for a large share of government spending in agriculture and it reflects donors' priority in supporting agriculture in Africa. The second objective is to track progress of the commitment made by African governments at the African Union Summit in Maputo, Mozambique in 2003 to increase public spending in agriculture to at least 10 percent of total government budgetary resources.

2. COMPARATIVE TRENDS AND COMPOSITION OF GOVERNMENT SPENDING IN AFRICA AND OTHER REGIONS

2.1 Definitions and measures

The data on public spending used in this paper are largely taken from various issues of International Monetary Fund's (IMF's) Government Financial Statistics (GFS) Yearbook and national government agencies. Total expenditures are broken down into various sectors. This paper concentrates on six sectors, namely agriculture, defense, education, health, social security, and transportation and communication. Appendix A.1 provides definitions of these sectors. Prices were first deflated from current local currency expenditures to a set of base year (2000) prices using each country's implicit GDP deflator. Exchange rates measured in purchasing power parity as reported by the World Development Indicators (World Bank, 2007) are used to convert local currency expenditures measured in terms of 2000 prices into a value aggregate expressed in terms of 2000 international dollars.

The data we used include 43 developing countries from four regions (North Africa, sub-Saharan Africa, Asia and Latin America), partly because of data availability and partly because these countries are important in their own right while representing broader rural development throughout all developing countries. Three countries are included for North Africa: Egypt, Morocco and Tunisia and 13 countries included for sub-Saharan Africa (SSA): Botswana, Burkina Faso, Cameroon, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Malawi, Mali, Nigeria, Togo, Uganda and Zambia. Eleven countries are included from Asia: Bangladesh, China, India, Indonesia, Korea, Malaysia, Myanmar, Nepal, the Philippines, Sri Lanka, and Thailand. Sixteen countries are included for Latin America: Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Panama, Paraguay, Uruguay, and Venezuela. In 2007, these countries accounted for more than 80 percent of both total GDP and agricultural GDP in developing countries.

Most countries use the internationally accepted "Classification of the Function of Government" (COFOG) suggested by the International Monetary Fund (IMF). In reality, using this standard definition is not mandatory. Thus, there is an issue of how agriculture is defined – what is included and what is not, and the diversity of agencies' spending on agriculture.

Donor funding to agriculture is at times not recorded properly, which can complicate spending estimations in countries where donor funding accounts for a large amount of core funding. For example, in Ghana, the share of agricultural spending in total spending was less than 2 percent in 2006. However, donor funding accounts for a substantial portion of agricultural funding in the country, although it is usually under-reported or not accounted for in calculating the total agricultural spending.

2.2. Size of Total Government Spending

Over the past two decades, total government spending in developing countries has increased by 6 percent annually (Table 1).¹ This spending is largely driven by Asia where annual spending has increased by 8 percent. For all of the African countries taken together, government expenditures grew at a rate of 3.7 percent over the period of 1980 to 2005. For sub-Saharan Africa (SSA), total expenditures grew at a rate of 4.9 percent over the same period. These growth rates have steadily increased over each decade, from 2.3 percent in the 1980s, to 4.3 percent in the 1990s, and to 4.8 percent after 2000. However, this varies by country. Botswana, Burkina Faso, Ghana, and Uganda's total expenditures have grown at annual rates of about 7 percent since 2000—comparable to Asia's giants—whereas Cote d'Ivoire and Togo have experienced negative rates.

Table 1. Government Expenditures in Developing Regions

	2000 international dollars, billions				Percentage of GDP (%)			
	1980	1990	2000	2005	1980	1990	2000	2005
North Africa	71.64	78.60	110.73	141.47	41.87	29.06	28.22	29.64
SSA	42.45	66.40	112.20	136.72	18.51	22.51	28.83	28.92
ASIA	476.61	834.52	2013.90	3109.43	19.01	17.01	20.01	21.29
LAC	391.18	582.70	755.32	999.72	18.47	23.59	22.08	26.32
TOTAL	981.88	1562.23	2992.15	4387.33	19.54	19.67	20.97	22.67

Source: Calculated using data from International Monetary Fund's (IMF) Government Financial Statistics Yearbook (various issues) and various sources from national agencies. LAC – Latin American countries

Assessing the percentage of total government expenditures to gross domestic product (GDP) provides an alternative measure of the amount a country spends relative to the size of its economy and is useful for purposes of tracking spending performance across different countries. On average, by this measure, developing countries spend much less than developed countries. For example, total government outlays as a percentage of GDP in the Organization for Economic Co-operation and Development (OECD) countries ranged from 27 percent in 1960 to 48 percent in 1996 (Gwartney, Holcombe, and Lawson 1998), compared to 13 to 35 percent in most developing countries.

For the three developing regions reported in this paper (Africa, Asia and Latin America or LAC), the percentage of total government expenditures to GDP increased from 19 percent in 1980 to 23 percent in 2005 on average. Over the past two decades, Africa spent the most, roughly 25 to

¹ Total expenditures are broken down into the various sectors found in the International Monetary Fund's (IMF's) *Government Financial Statistics (GFS) Yearbook*. This study concentrates on six sectors, namely agriculture, defense, education, health, social security, and transportation and communication. The definition of these sectors is as per the GFS Manual 2001 which uses the internationally accepted standard for the Classification of the Functions of Government (COFOG).

29 percent, compared with Asia's 20 percent, although the share has been declining (Table 1). Within Africa and among the sampled countries, Botswana, Nigeria, and Malawi spent the most, up to 40 percent. Evidently, African governments do not lack overall public resources.

2.3. Agricultural Spending

Over the past two decades, government spending on agriculture in developing countries has increased by 3 percent annually (Table 2). This was largely driven by increased allocations in Asia and Sub-Saharan Africa. Both regions saw agricultural expenditures increase by approximately 4.5 percent annually, more than the annual rate of increase of 2.7 percent for Africa as a whole. Following a period of near stagnation over the 1980s and 1990s, agricultural spending in SSA more than doubled between 2000 and 2005 to nearly 9 billion international dollars. Over the same period, the share of agricultural expenditures in agricultural GDP grew by 75 percent from less than 4 percent in 2000 to more than 6 percent in 2005. In contrast, spending levels and shares for the sector declined during the same period for North Africa by nearly 20 percent and 30 percent, respectively.

Table 2. Agricultural Expenditure

	2000 international dollars, billions				Percentage of agricultural GDP			
	1980	1990	2000	2005	1980	1990	2000	2005
North Africa	4.35	4.20	6.29	5.20	14.76	8.71	10.97	7.96
SSA	3.00	3.64	4.24	8.67	4.09	3.73	3.67	6.42
ASIA	71.14	103.00	127.46	201.63	9.57	8.63	7.87	10.22
LAC	30.31	12.19	18.93	25.46	14.18	5.77	9.12	9.40
TOTAL	108.80	123.03	156.93	240.96	10.27	7.93	7.84	9.86

Source: Calculated using data from International Monetary Fund's (IMF) Government Financial Statistics Yearbook (various issues).

There are large variations across countries in Africa, nevertheless. Ghana, Kenya, Malawi, Morocco, Togo, and Zambia, for example, experienced negative growth rates of agricultural spending between 1980 and 2005. On the other hand, Burkina Faso, Ethiopia, Nigeria, and Tunisia saw high growth rates of over 8 percent in the same period, having accelerated largely after 2000. This is indicative of the commitment of these countries to pro-poor growth. In Burkina Faso, for example, poverty fell from 55 percent in 1998 to 46 percent in 2003 (World Development Indicators, 2007).

2.4. Composition of Government Spending

Examining the composition of total expenditures across regions reflects the priorities of governments and reveals many differences. The top three most prioritized sectors for Africa in 2005 were education, defense and health (Table 3). The percentage of expenditures in education was the largest (18 percent), comparable to that in Asia. Defense accounted for 8 percent of total government expenditures in the region, also similar to the percentage in Asia. The prioritization of spending on agriculture in Africa fell between 1980 and 2000, before regaining some prominence in 2005. A discouraging trend is that African countries have spent very little on transportation and telecommunication. This share in Africa has gradually declined from 6.3 percent in 1980 to 3.7 percent in 2005. If we focus only on sub-Saharan Africa (SSA), the shares fell by nearly one-half between 1980 and 2005, reaching 6 percent in 2005. Investment in transportation and telecommunication, especially road development, has been

found to contribute immensely to growth and poverty reduction, yet the development of the sector remains poor in Africa.

Table 3. Composition of Public Expenditure (Percent)

		Agriculture ^a	Education	Health	T&C	Social Security	Defense	Other ^b
Sub Saharan Africa	1980	7.1	14.4	4.9	11	2.9	19.7	40.1
	1990	5.5	14.5	4.5	4.5	2.5	17.1	51.5
	2000	3.8	14.1	6.7	4.7	5	8.8	56.9
	2005	6.3	15.4	8.1	5.8	2.8	6.5	55.1
Africa	1980	6.4	12.2	3.7	6.3	5.7	14.6	51
	1990	5.4	15.1	3.9	4.1	7.1	13.7	50.7
	2000	4.7	17	6.8	3.9	6.1	9.4	52
	2005	5	17.9	6.5	3.7	5.6	8.1	53.1
Asia	1980	14.9	13.8	5.3	11.7	1.9	17.6	34.8
	1990	12.3	17.4	4.3	5.2	2.4	12.9	45.5
	2000	6.3	16.9	4.3	3.8	6.4	8.3	54
	2005	6.5	17.9	5.4	4.5	8.7	7.9	49.1
Latin America	1980	7.7	10.4	5.8	6.8	23.6	6.1	39.5
	1990	2.1	7.9	6.1	2.6	21.8	5	54.4
	2000	2.5	14.8	7.6	2.6	36.4	4.6	31.6
	2005	2.5	14.3	8.4	2.4	36.6	3.8	32

Sources: Calculated using data from International Monetary Fund's Government Finance Statistics (various issues).

Notes: T&C stands for transportation and communication.

a Includes agriculture, forestry, fishing, and hunting.

b Includes fuel and energy; mining, manufacturing, and construction; general administration.

In general, other expenditures, which include government spending on fuel and energy; mining, manufacturing and construction; subsidies and general administration, have accounted for about half of total government spending in Africa. A bulk of this typically goes to government subsidies and expenses relating to general administration. The large and increasing share of these expenditures may be crowding out spending on more productive sectors such as agriculture, education, and infrastructure.

3. PROGRESS TOWARDS 10% BUDGETARY ALLOCATION TO AGRICULTURE IN AFRICA

Agriculture is crucial for development in Africa as the majority of the African population resides in rural areas, and at least 70 percent of the African workforce is engaged in agriculture. In many African countries, growth in agriculture is the most effective strategy for reducing poverty and promoting overall economic growth (Diao, et al., 2007).

In recognition of this, the African Union (AU) Heads of State and Government adopted the Comprehensive Africa Agriculture Development Programme (CAADP) in June 2003 at the African Union Summit in Maputo, Mozambique which set the achievement of 6 percent annual agricultural growth as its main goal. Attendees at the meeting also acknowledged that

inadequate investment in the sector was a key constraint to increasing agricultural productivity and growth rates. Thus, African governments pledged to increase agricultural spending to at least 10 percent of total government budgetary resources by 2008. These commitments explicitly place agriculture at the center of national growth and poverty reduction strategies aimed at putting countries on track towards achieving the first Millennium Development Goal (MDG1) of halving poverty and hunger by 2015, and set public agricultural spending as the main method for doing so.

The latest evidence shows that the share of agricultural spending in total spending has ranged from 4 to 6 percent on aggregate since 1980 in Africa.² African countries as a whole, therefore, have not met the 10 percent budget allocation target by 2008. Despite a 75 percent increase in the share of agricultural spending from 2000 to 2005, as shown in Table 3, the target remains unmet because of the very low initial base and the declining trends prior to 2000. . Only eight countries—Burkina Faso, Ethiopia, Mali, Malawi, Ghana, Niger, Senegal and Zimbabwe—reached or surpassed 10 percent (Table 4 and Figure 1).³ Sixteen other countries reached expenditure shares between 5 and 10 percent while 14 countries devoted less than 5 percent of their total budgets to the sector.

Table 4. Level of Agricultural Investment as a Share of Total Expenditure, 2007 (unless otherwise noted)

At least 10 percent	5 percent to less than 10 percent	Less than 5 percent
Burkina Faso ²	Benin ¹	Botswana
Ethiopia ³	Chad ⁴	Burundi ⁴
Ghana ¹	Madagascar ³	Cameroon ³
Guinea ⁴	Mauritania ⁴	Central African Republic ⁴
Malawi	Mozambique ³	Congo, Dem. Rep. ³
Mali	Namibia ³	Cote d'Ivoire
Niger ²	Nigeria	Egypt ³
Senegal	Sudan ⁴	Gabon ⁴
	Swaziland ³	Guinea Bissau ⁴
	Tanzania ³	Kenya ¹
	The Gambia ⁴	Lesotho ³
	Togo	Mauritius ³
	Tunisia ³	Morocco ³
	Uganda ¹	Rwanda
	Zambia ²	
	Zimbabwe ³	

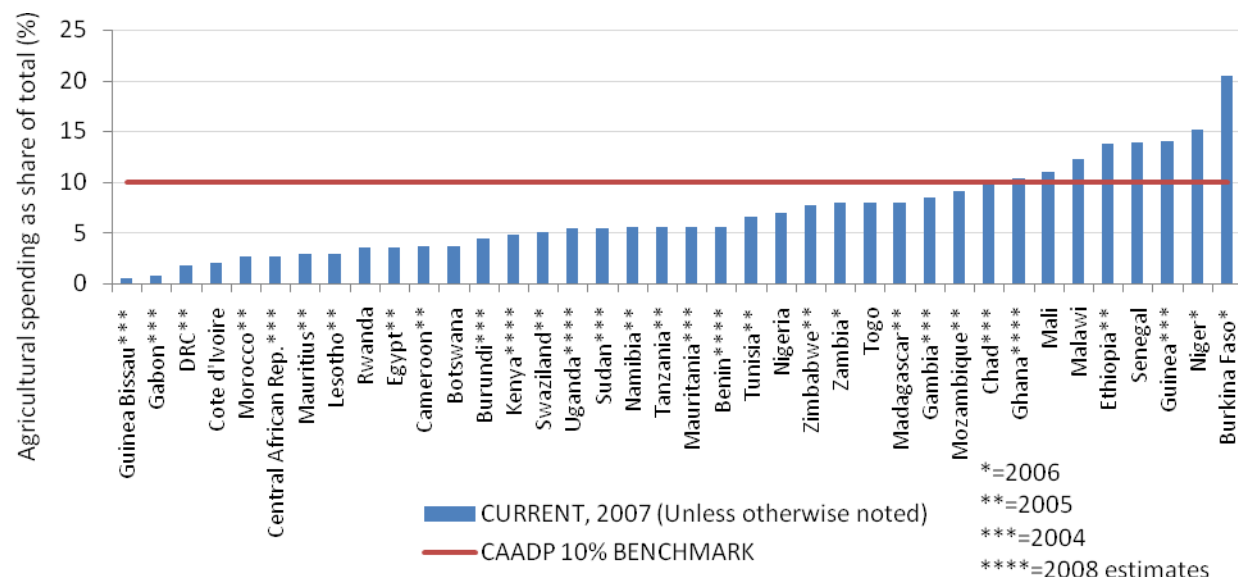
Sources: Calculated using data from International Monetary Fund's Government Finance Statistics (various issues). NEPAD/AU/FAO/World Bank 2006 budgetary tracking surveys, which also adopted the COFOG standards of measure. From preliminary in-country surveys by ReSAKSS nodes with in-country network partners (Zambia, Nigeria), and in some cases as part of broader Public Expenditure Review studies under taken in collaboration with the World Bank and national government agencies (e.g. Uganda, Malawi). For Nigeria, 2006 figure are preliminary estimates based on the Federal budget. Rwanda figures from Diao, X., et al. 2007 (IFPRI).

Notes: 1. Estimate for 2008; 2. 2006; 3. 2005; 4. 2004.

² Johnson, et al., 2008. ReSAKSS 2008 Annual Trends Report.

³ See also Appendix A.2 and Appendix A.3 for the shares of agricultural expenditure in total expenditure by African countries and regions respectively.

Figure 1. Agricultural Expenditures and the CAADP 10% Target, 2007

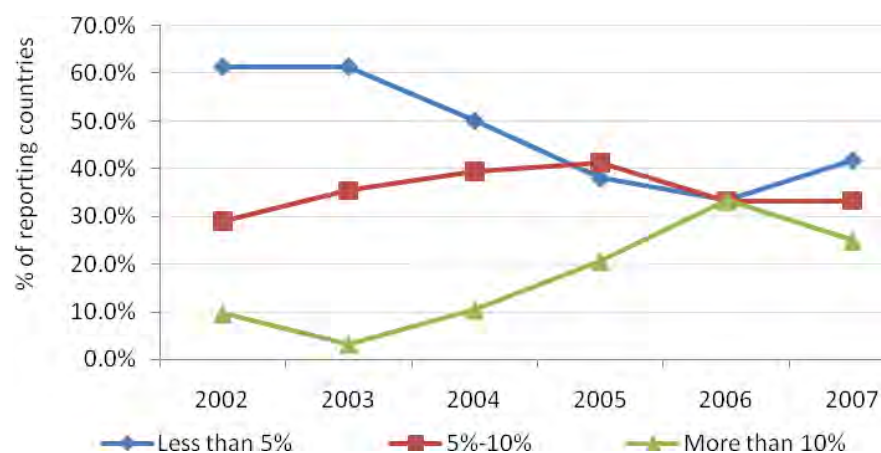


Sources: Calculated using data from International Monetary Fund's Government Finance Statistics (various issues). NEPAD/AU/FAO/World Bank 2006 budgetary tracking surveys, which also adopted the COFOG standards of measure. From preliminary in-country surveys by ReSAKSS nodes with in-country network partners (Zambia, Nigeria), and in some cases as part of broader Public Expenditure Review studies under taken in collaboration with the World Bank and national government agencies (e.g. Uganda, Malawi). For Nigeria, 2006 figure are preliminary estimates based on the Federal budget. Rwanda figures from Diao, X., et al. 2007 (IFPRI).

Since the 2003 Maputo Declaration, many African governments have increased their budgetary allocations to the agriculture sector. In 2003, only 3.2 percent of African countries were spending at least 10 percent of their total budgets allocations on agriculture. This figure increased to 33.3 percent in 2006 before slightly decreasing again to 25.0 percent in 2007 (Figure 2). Many of the countries that have increased their spending allocations since 2003 progressed from the range of 5 to 10 percent spending to higher than 10 percent spending. In addition, a number of countries increased their allocations from under 5 percent to between 5 and 10 percent, including Benin, Ghana, Nigeria, Sudan, Tanzania, Togo, Uganda and Zambia. This upward trend indicates that some countries are responding to the Maputo declaration's target. Nevertheless, the majority of African countries have generally stayed in the same grouping of budgetary allocation, especially those with initially low spending rates.

Countries that were already spending a significant share of their budgetary resources on agriculture have been the most likely to meet the 10 percent target while those that initially devoted a small share have been less likely to increase their spending above 10 percent. This is not surprising since these countries would need to more than double agriculture spending to comply with the 2003 declaration and will thus need more encouragement and support to do so.

Figure 2. Progress towards 10% Agricultural Expenditure Share



Sources: Calculated using data from International Monetary Fund's Government Finance Statistics (various issues). NEPAD/AU/FAO/World Bank 2006 budgetary tracking surveys, which also adopted the COFOG standards of measure. From preliminary in-country surveys by ReSAKSS nodes with in-country network partners (Zambia, Nigeria), and in some cases as part of broader Public Expenditure Review studies under taken in collaboration with the World Bank and national government agencies (e.g. Uganda, Malawi). For Nigeria, 2006 figure are preliminary estimates based on the Federal budget. Rwanda figures from Diao, X., et al. 2007 (IFPRI).

An alternative measurement of the priority given to agriculture other than the share of agricultural expenditures in total expenditures is the ratio of agricultural expenditures to agricultural GDP. This measure of government spending on agriculture explicitly weighs in the size of the sector in the overall economy when comparing across countries. For example, 10 percent of total spending may translate into a 5 percent share of agricultural GDP for countries where the sector is large, and therefore, important to the national economy. In other cases, the 10 percent of total spending may translate into a 15 percent share of agricultural GDP for countries where the agricultural sector is less important. Botswana, for example, has barely spent 5 percent of total expenditures on the sector since 1980, yet it represents more than 31 percent as a share of agricultural GDP (Table 5 and Figure 3).⁴

Table 5: Level of Agricultural Investment as a share of agricultural GDP, 2007 (unless otherwise noted)

At least 10 percent	5 percent to less than 10 percent	Less than 5 percent
Botswana ³	Burkina Faso ²	Benin ¹
Egypt ³	Ethiopia ²	Cameroon ³
Malawi ³	Kenya ²	Cote d'Ivoire
Senegal ³	Mali ²	Ghana
Tunisia ³	Morocco ³	Nigeria
Zambia ²	Niger ²	Rwanda ²
Zimbabwe ³	Uganda ³	Togo

Sources: Calculated using data from International Monetary Fund's Government Finance Statistics (various issues). Malawi figures from Benin, S. et al. 2008 (IFPRI). Zambia figures from Benin, S. et al. 2008 (IFPRI).

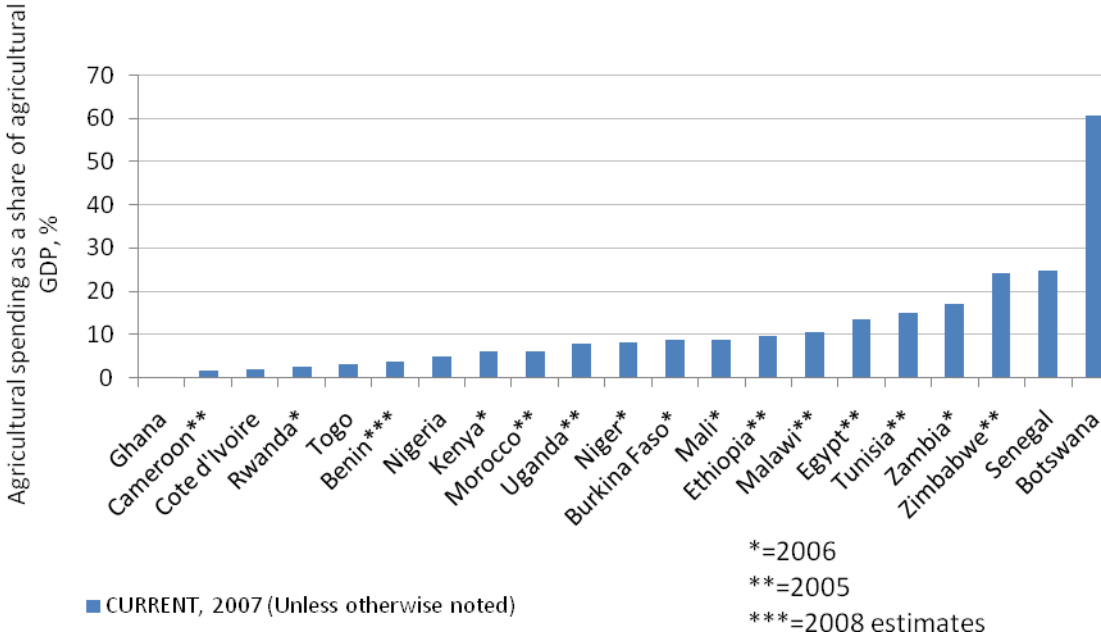
Notes: 1. Estimate for 2008; 2. 2006; 3. 2005.

⁴ See also Appendix A.4 and Appendix A.5 for the shares of agricultural expenditure in agricultural GDP by African regions and countries respectively.

The ratio of agricultural expenditures to agricultural GDP is low in Africa when compared with Asia. On aggregate, Africa spent between 5 to 7 percent as a share of agricultural GDP, while for Asia it has been between 8 to 10 percent. Country level data in Africa shows that the range can be considerable (from 1 to 60 percent). Since 1980, about half of African countries decreased their agricultural expenditures relative to their agricultural GDP. Botswana had the highest percentage in 2005 at 60 percent. Togo and Cameroon, on the other hand, spent less than 2 percent in the same year. These are countries that may not be committing enough to the sector relative to its contribution to their national economies. With the exception of Botswana, Egypt, Malawi, Senegal, Zambia, Zimbabwe and Tunisia, African countries have spent less than 10 percent of their agricultural GDPs on agriculture in recent decades.

The inability of the African continent to substantially raise the level of their agricultural investments may have serious implications for poverty reduction and food security. Recent estimates indicate that in order to achieve MDG1, the continent will need to boost agricultural spending by \$13.6 billion 2007 dollars annually from 2008 to 2015, with a cumulative total of \$95.7 billion.⁵ This suggests that the continent will need to increase its agricultural spending by at least 20 percent per year.

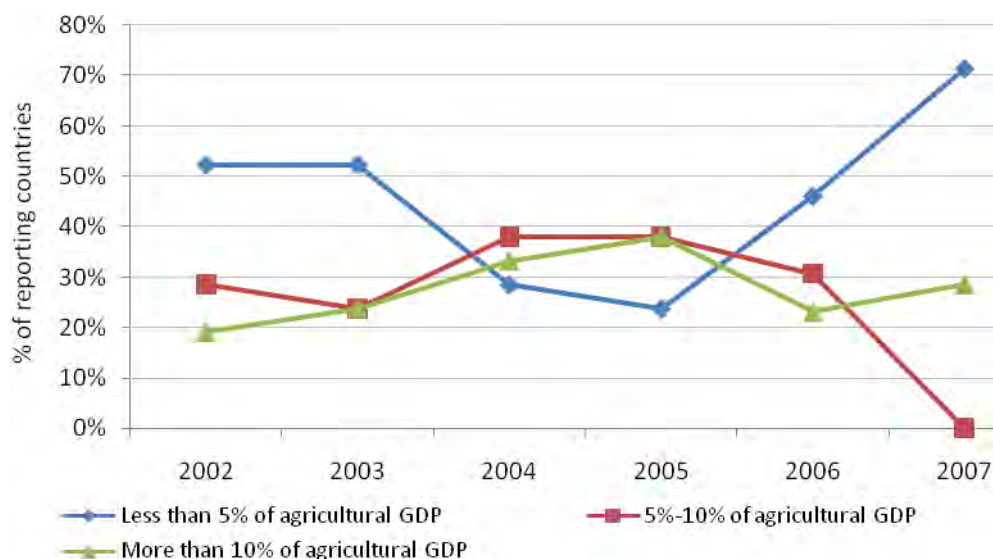
Figure 3: Agricultural Expenditure as a share of agricultural GDP, 2007



Sources: Calculated using data from International Monetary Fund's Government Finance Statistics (various issues). Malawi figures from Benin, S. et al. 2008 (ReSAKSS Working Paper No. 18). Zambia figures from Benin, S. et al. 2008 (ReSAKSS Working Paper No. 19).

⁵ Fan, S., et al. 2009 (ReSAKSS Working Paper No. 25). Excludes Zimbabwe as an outlier. Based on a sample of 30 sub-Saharan African countries.

Figure 4: Agricultural Spending Shares of Agricultural GDP, 2002-2007



Sources: Calculated using data from International Monetary Fund's Government Finance Statistics (various issues). Malawi figures from Benin, S. et al. 2008 (ReSAKSS Working Paper No. 18). Zambia figures from Benin, S. et al. 2008 (ReSAKSS Working Paper No. 19).

4. DEVELOPMENT ASSISTANCE FOR AGRICULTURE

Development assistance to the developing countries in the sample used in this paper has grown at an annual average rate of 5 percent from 1980 to 2006. Total aid in these developing countries grew from \$7 billion in 1980 to \$27 billion in 2006.

In contrast to the increase in total aid to developing countries since 1980, aid to agriculture has dramatically fallen. According to the FAO, from 1990 to 1999 total lending to agriculture worldwide from external sources fell by 50 percent.⁶ In Africa as a whole, donor spending for agriculture has seen a consistent decline from an average of 15 percent between 1980 and 1995 to 12 percent between 2000 and 2002. In 2006 the ratio had declined to about 4 percent. Total Overseas Development Assistance (ODA) for agriculture in sub-Saharan Africa (SSA) has hovered at US \$1 billion a year since the 1990s. In comparison, the share of ODA spent on aid for emergencies has doubled and in actual dollars has more than quadrupled during the same period.

All of the SSA countries in the sample spent less than 10 percent of their aid budgets on agriculture. Botswana and Nigeria spent less than 1 percent of all aid received on agriculture. However, Burkina Faso spent 8 percent of its total aid on agriculture. The remaining countries spent between 3 and 6 percent of their aid budgets on agriculture (Table 6). Thus, agriculture has not been prominent in the agenda of many donors, perhaps not because of any conscious decisions but pressure to broaden the aid agenda.

⁶ State of World Food Insecurity, 2003.

In addition, ODA for agriculture in some countries (e.g., Mozambique and Tanzania) greatly overshadows the amount spent by the government itself. These contributions have the risk of "crowding out" domestic agriculture investments by reducing the government's political incentives to increase their shares.

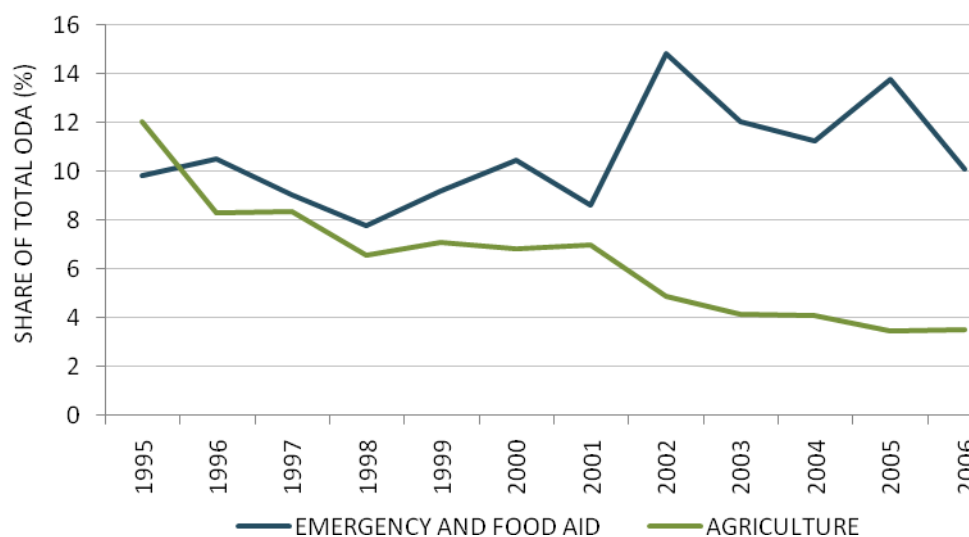
Africa is now facing the same type of long-term food deficit problem that India faced in the early 1960s. As a result of inadequate investment in the African agriculture sector, the continent's overall agricultural productivity has fallen since the mid-1980s, leaving it vulnerable to frequent food crises and dependent on emergency food aid and food imports. In response to these food crises, governments and donors have in the past devoted more resources to emergency aid rather than to long-term agricultural development (Figure 5), which further undermines the ability of countries to generate economic and agricultural growth. Consequently, poverty and hunger have persisted and threaten the likelihood that some countries will meet the MDGs. Without question, donors should increase their investments in the prime movers (human capital, technology and institutional innovations) to increase farm production and accelerate agricultural growth.

Table 6. Agricultural Aid to Africa

	Aid to Agriculture (2006 constant dollars, million)					Agricultural aid as a percent of total aid				
	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006
Botswana	0.8	0.4	0.5	0.6	0.6	1.64	1.00	0.87	0.97	0.74
Burkina Faso	21.1	35.5	32.8	37.2	42.2	5.50	8.35	7.23	7.63	7.87
Cameroon	18.00	14.60	13.60	17.30	27.80	2.87	1.00	1.36	2.94	1.45
Cote d'Ivoire	14.5	7.1	4.7	2.8	13.9	0.85	1.29	1.29	0.94	4.24
Egypt	23.50	29.30	22.00	53.30	66.30	1.34	2.26	1.38	3.92	5.55
Ethiopia	31.9	42.7	22.9	32.4	37.4	4.82	3.30	1.97	2.08	2.83
Ghana	19.7	26.5	33.5	45.4	41.6	3.56	4.32	1.79	4.10	5.80
Kenya	21.2	23.3	22.9	19.7	40.5	5.17	4.42	3.59	2.86	4.33
Malawi	12.1	27.5	16.9	39.5	27.5	3.88	6.37	3.93	8.72	5.28
Mali	29	22	39.1	38.9	29.4	6.46	4.62	6.71	6.78	5.29
Morocco	16.1	20.7	18.8	19.3	28.3	2.02	3.50	3.08	2.02	2.57
Nigeria	3.7	5.5	3.2	7.4	6	1.24	1.91	0.83	0.12	0.05
Togo	2.7	3.7	2.6	2.1	1.1	3.30	4.63	3.53	2.49	1.40
Tunisia	24.4	24.8	18.2	20	17.6	6.69	6.27	4.91	3.98	3.00
Uganda	17.9	22.7	42.6	41.2	56.8	2.99	3.16	5.08	4.96	5.18
Zambia	21.2	17	13.4	28.6	34.6	3.96	2.29	1.33	1.80	2.51

Source: OECD statistical portal accessed on November 14, 2008

Figure 5: Agricultural and emergency ODA to Africa as a share of total ODA



Source: OECD Credit Report System (CRS) based on ODA commitments, 2007.

5. CONCLUSION

This paper has compiled government expenditures by type across many developing countries between 1980 and 2007 with a focus on Africa, but with a comparative perspective with Asia and Latin America. It is clear that African countries need to increase their budgetary allocations to agriculture. Some countries including Burkina Faso, Ethiopia, Ghana, Guinea, Niger, Senegal, Malawi, and Mali have moved towards that direction. But overall, their budgetary allocations are lower than those of Asian countries where agriculture has experienced successful transformation through the green revolution strategies. The African continent as a whole is lagging behind, making significant poverty reduction and attainment of MDG1 appear less and less feasible. If an alternative measure of agricultural expenditure as a percentage of agricultural GDP is used, more countries would fall into a category of low budget support to agriculture. In Asia, this percentage is more than 10 percent and was as high as 15 percent during the green revolution era. For majority of African countries, it is lower than 10 percent.

Although national governments have committed to the 10 percent budgetary allocation to agriculture, it is crucial for development agencies to do the same. Yet, development assistance to agriculture has declined in terms of both absolute amount and as the shares of total aid.

Yet simply increasing agricultural spending is only part of the picture. While rural poverty reduction cannot be achieved without agricultural growth, neither is it likely to happen by simply investing in the agricultural sector alone. Setting the right priorities for public spending is equally important. Although each country has specific needs and should therefore have unique investment strategies, it is investment in agricultural research, rural infrastructure and education that have the largest impact on agricultural productivity and agricultural growth.

A big challenge looming ahead for African countries is the recent surge in world food prices and the recent financial crisis, which threatens to reverse any past gains in poverty reduction. Higher food prices will severely affect rural and urban consumers, especially among the poor. By

increasing spending in agriculture and rural development now, African governments can avert this threat by rapidly increasing agricultural productivity and ensuring a long term and stable supply of affordable food to millions.

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APPENDIX: TABLE A.1. —DEFINITIONS OF GOVERNMENT AND SECTORAL EXPENDITURES

Type of expenditure	Includes
Government revenue	Current revenue (tax and non-tax revenue), capital revenue, and grants
Government expenditure	Central government (government departments, offices, establishments, and other bodies that are agencies or instruments); state, provincial, or regional government; local government; supranational authorities
Defense	<p>Administration of military defense affairs and services; operation of land, sea, air and space defense forces; operation of engineering, transport, communication, intelligence, personnel and other non-combat defense forces; operation or support of reserve and auxiliary forces of the defense establishment. Includes: offices of military attachés stationed abroad; field hospitals. Excludes: military aid missions; base hospitals; military schools</p> <p>Administration of civil defense affairs and services; formulation of contingency plans; organization of exercises involving civilian institutions and populations; operation or support of civil defense forces. Administration of military aid and operation of military aid missions accredited to foreign governments or attached to international military organizations or alliances; military aid in the form of grants (in cash or in kind), loans (regardless of interest charged) or loans of equipment; contributions to international peacekeeping forces including the assignment of manpower.</p> <p>Administration and operation of government agencies engaged in applied research and experimental development related to defense; grants, loans or subsidies to support applied research and experimental development related to defense undertaken by non-government bodies such as research institutes and universities.</p>
Health	Administration, operation or support of activities such as formulation, administration, coordination and monitoring of overall health policies, plans, programs and budgets; preparation and enforcement of legislation and standards for the provision of health services, including the licensing of medical establishments and medical and paramedical personnel; production and dissemination of general information, technical documentation and statistics on health.
Education	Government outlays on education include expenditures on services provided to individual pupils and students and expenditures on services provided on a collective basis. Collective educational services are concerned with matters such as formulation and administration of government policy; setting and enforcement of standards; regulation, licensing and supervision of educational establishments; and applied research and experimental development into education affairs and services. The breakdown of education is based upon the level categories of the 1997

International Standard Classification of Education (ISCED-97) of the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Social security and welfare

Transfer payments, including payments in kind (to compensate for reduction/loss of income or inadequate earning capacity); administration, management, or operation of social security affairs involving chiefly provision of benefits for loss due to sickness, childbirth, or temporary disability resulting from industrial and other accidents— includes maternity benefits; administration, management, or operation of retirement, pensions, or disability plans for government employees, both civil and military and their survivors; administration, operation, and support of old age, disability, or survivor's benefits; unemployment compensation benefits; family and child allowances; welfare affairs and services (children's and old age residential institutions, handicapped persons, and other residential institutions)

Agriculture, forestry, fishing and hunting

Agriculture: Administration of agricultural affairs and services; conservation, reclamation or expansion of arable land; agrarian reform and land settlement; supervision and regulation of the agricultural industry; construction or operation of flood control, irrigation and drainage systems, including grants, loans or subsidies for such works; operation or support of programs or schemes to stabilize or improve farm prices and farm incomes; operation or support of extension services or veterinary services to farmers, pest control services, crop inspection services and crop grading services; production and dissemination of general information, technical documentation and statistics on agricultural affairs and services; compensation, grants, loans or subsidies to farmers in connection with agricultural activities, including payments for restricting or encouraging output of a particular crop or for allowing land to remain uncultivated.

Forestry: Administration of forestry affairs and services; conservation, extension and rationalized exploitation of forest reserves; supervision and regulation of forest operations and issuance of tree-felling licenses; operation or support of reforestation work, pest and disease control, forest fire-fighting and fire prevention services and extension services to forest operators; production and dissemination of general information, technical documentation and statistics on forestry affairs and services; grants, loans or subsidies to support commercial forest activities

Fishing and hunting: This class covers both commercial fishing and hunting, and fishing and hunting for sport. The fishing and hunting affairs and services listed below refer to activities that take place outside natural parks and reserves. Administration of fishing and hunting affairs and services; protection, propagation and rationalized exploitation of fish and wildlife stocks; supervision and regulation of freshwater fishing, coastal fishing, ocean fishing, fish farming, wildlife hunting and issuance of fishing and hunting licenses; operation or support of fish hatcheries, extension services, stocking or culling activities, etc.; production and dissemination of general information, technical documentation and statistics on fishing and hunting affairs and services; grants, loans or subsidies to support commercial fishing and hunting activities, including the construction or operation of fish hatcheries.

APPENDIX A.2: GOVERNMENT EXPENDITURE ON AGRICULTURE AS A SHARE OF TOTAL EXPENDITURE (%)

	2002	2003	2004	2005	2006	2007	2008
Benin ¹	3.5	4.4	3.9	6.4	7.5	6.1	5.6
Botswana ^{1,4}	4.4	3.9	3.1	3.8	4.5	3.7	..
Burkina Faso ^{1,2}	7.6	9.2	15.9	18.5	20.4	..	..
Burundi ³	3.6	6.1	4.4	..	..	..	..
Cameroon ^{1,2}	3.3	3.4	3.6	3.6	..	..	..
Central African Republic ¹	..	..	2.7	..	..	..	..
Chad ¹	..	..	9.7	..	..	..	..
Congo, Dem. Rep. ³	0.8	0.7	1.5	1.8	..	..	..
Cote d'Ivoire ^{1,2}	4.5	4.5	4.4	4.3	2.4	2.0	..
Egypt ¹	6.5	5.9	5.1	3.5	..	..	..
Ethiopia ¹	6.6	9.5	14.3	13.7	..	..	..
Gabon ³	0.6	0.9	0.8	..	..	..	..
Gambia ¹	..	..	8.5	..	..	..	..
Ghana ^{1,4}	3.9	5.0	6.7	5.8	1.0	9.6	10.3
Guinea Bissau ¹	..	..	0.5	..	..	..	..
Guinea ¹	..	..	14.0	..	..	..	..
Kenya ^{1,4,6}	5.0	4.6	5.1	6.6	5.9	4.4*	4.8*
Lesotho ³	4.1	4.9	3.0	2.9	..	..	..
Madagascar ³	8.0	7.9	8.0	8.0	..	..	..
Malawi ^{1,4,6}	8.7	6.6	7.0	11.0	17.2	12.2	..
Mali ^{1,4}	11.4	12.7	14.5	10.8	10.6	11.0	..
Mauritania ¹	..	..	5.5	..	..	..	..
Mauritius ³	2.7	3.4	2.9	2.9	..	..	..
Morocco ¹	4.0	3.2	2.8	2.6	..	..	..
Mozambique ³	17.1	1.2	9.1	9.1	..	..	..
Namibia ³	6.0	6.0	5.3	5.5	..	..	..
Niger ^{1,4}	..	..	0.9	14.5	15.1	..	..
Nigeria ^{1,4}	3.2	3.2	3.6	4.4	5.8	7.0	..
Rwanda ^{1,5}	8.6	3.9	4.0	3.4	3.3	3.5	..
Senegal ¹	3.8	3.6	4.4	14.1	13.4	13.9	..
Sudan ³	1.7	3.1	5.4	..	..	..	..
Swaziland ³	4.0	3.3	3.3	5.0	..	..	..
Tanzania ³	4.5	6.8	5.5	5.5	..	..	..
Togo ^{1,2}	2.3	2.4	2.3	1.9	3.4	8.0	..
Tunisia ^{1,2}	9.5	8.9	7.7	6.6	..	..	..
Uganda ^{1,4}	4.2	4.2	7.0	9.7	5.2	3.5	5.4*
Zambia ^{1,4,5}	2.6	2.3	4.1	8.0	8.0	..	..
Zimbabwe ¹	8.3	9.0	6.6	7.7	..	..	..
Africa ¹	4.5	5.6	6.5	6.5			
Africa (based on averages of above rates)	5.2	5.0	5.7	7.1	8.2	7.3	8.0

Sources:

1. Calculated by IFPRI using International Monetary Fund's Government Finance Statistics Yearbooks using the international standards of the Classification of the Functions of Government (COFOG), with some revisions from country sources
 2. Projected by IFPRI for 2005 figures using the IMF data in 1 above.
 3. From the NEPAD/AU/FAO/World Bank 2006 budgetary tracking surveys, which also adopted the COFOG standards of measure.
 4. From preliminary in-country surveys by ReSAKSS nodes with in-country network partners (Zambia, Nigeria), and in some cases as part of broader Public Expenditure Review studies under taken in collaboration with the World Bank and national government agencies (e.g. Uganda, Malawi). For Nigeria, 2006 figure are preliminary estimates based on the Federal budget.
 5. From Diao et al. 2007 (IFPRI)
 6. From IFPRI and ReSAKSS analyses on country growth and investment options (online at www.resakss.org).
- .. Data unavailable
* Projections.

APPENDIX A.5: AGRICULTURAL EXPENDITURE AS A PERCENTAGE OF AGRICULTURAL GDP

	1980	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008
Benin ²	..	..	..	..	2.6	3.3	4.0	3.3	3.7	3.4	4.1	3.6
Botswana ^{1,2,3}	31.6	48.0	53.0	67.8	73.7	82.8	83.1	84.7	60.2	71.1	60.6	..
Burkina Faso ^{1,2,3}	2.1	2.8	2.9	4.4	4.4	5.4	5.9	11.8	13.5	8.5	..	..
Cameroon ^{1,3}	1.2	3.6	1.4	1.3	1.4	1.4	1.4	1.4	1.5	..	..	..
Cote d'Ivoire ^{1,2,3}	4.2	2.2	3.4	0.6	0.6	3.5	3.6	3.8	3.7	2.1	1.8	..
Egypt ^{1,3}	12.6	7.1	9.4	11.2	11.8	11.2	11.4	12.8	13.2	..	..	..
Ethiopia ^{1,3}	2.1	2.6	3.0	5.7	2.0	4.5	5.4	7.8	9.6	..	..	..
Ghana ^{1,2,3}	2.3	1.2	0.6	3.6	2.0	0.8	0.7	0.7	5.3	0.0	0.0	..
Kenya ^{1,3,4}	7.7	6.5	6.0	3.4	3.8	4.0	3.6	5.0	6.6	5.8	..	..
Malawi ^{1,3,4}	9.0	7.3	15.3	4.2	5.4	6.1	4.4	6.0	10.3	..	..	..
Mali ^{1,2,3}	3.7	8.9	10.8	8.3	9.3	7.0	6.6	8.7	9.6	8.7	..	..
Morocco ^{1,3}	11.6	8.1	9.5	8.2	6.7	7.4	5.9	5.4	5.8	..	..	..
Niger ²	..	10.9*	5.7	..	8.5	8.7	8.8	11.0	8.2	8.0	..	..
Nigeria ^{1,2,3}	1.8	2.2	0.9	2.3	9.6	4.4	4.8	7.1	5.7	3.4	4.8	..
Rwanda ^{2,5}	..	..	..	..	3.8	3.8	2.6	3.1	2.5	2.4	..	..
Senegal ²	..	3.6*	3.1	8.1	5.8	9.4	10.0	22.5	22.2	24.3	24.7	..
Togo ^{1,3}	7.9	1.7	1.1	1.0	0.9	0.9	0.9	0.9	0.9	1.3	2.8	..
Tunisia ^{1,3}	32.4	17.6	18.2	15.0	18.7	24.4	19.0	15.6	14.7	..	..	..
Uganda ^{1,3}	2.8	0.9	0.4	2.4	3.2	4.2	3.7	5.4	7.6	..	..	..
Zambia ^{1,3,4}	60.9	4.4	4.2	5.1	4.7	4.2	3.1	6.2	16.2	16.8	..	..
Zimbabwe ^{1,3}	13.0	20.3	11.1	5.4	6.2	19.0	16.3	19.0	24.0	..	..	..
AFRICA	7.5	5.4		6.1					6.9			
AFRICA (based on averages of above rates)	12.2	8.6	8.4	8.8	8.8	10.3	9.8	11.5	11.7	12.0	14.1	3.6

Sources and Notes:

*1991 value (1990 is missing).

1. From IFPRI and ReSAKSS calculations using IMF Government Statistics.

2. Calculated using data collected by surveys done by ReSAKSS nodes and agriculture GDP from WDI, 2008.

3. IFPRI calculations using IMF Government Statistics

4. From IFPRI and ReSAKSS analyses on country growth and investment options (online at www.resakss.org).

5. Values based on budgeted agricultural expenditures rather than actual agricultural expenditures.

.. = data not available.

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