ReSAKSS

Annual Trends and Outlook Report 2009

ReSAKSS Africa Wide

Regional Strategic Analysis and Knowledge Support System

FACILITATED BY IFPRI | A PROGRAM IN SUPPORT OF CAADP IMPLEMENTATION

Weathering the Storm: Agricultural Development, Investment, and Poverty in Africa Following the Recent Food Price Crisis

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The Regional Strategic Analysis and Knowledge Support System (ReSAKSS) is an Africa-wide network that provides analysis, data, and tools to promote evidence-based decisionmaking, improve awareness of the role of agriculture for development in Africa, fill knowledge gaps, promote dialogue, and facilitate the implementation of the Comprehensive Africa Agriculture Development Programme (*www.nepad-caadp.net*) of the New Partnership for Africa's Development and the African Union Commission (*www.africa-union.org*) and other regional agricultural development initiatives in Africa.

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Acronyms

AU	*African Union*
CAADP	*Comprehensive Africa Agriculture Development Programme*
COMESA	*Common Market for Eastern and Southern Africa*
CPI	*Consumer Price Index*
ECOWAS	*Economic Community of West African States*
FAO	*Food and Agriculture Organization of the United Nations*
FEWSNET	*Famine Early Warning System*
G8	*Group of Eight*
GDP	*Gross Domestic Product*
MDGs	*Millennium Development Goals*
NEPAD	*New Partnership for Africa's Development*
ODA	*Official Development Assistance*
PEFA	*Public Expenditure and Financial Accountability*
R&D	*Research and Development*
ReSAKSS	*Regional Strategic Analysis and Knowledge Support System*
SADC	*Southern African Development Community*
SSA	*Sub-Saharan Africa*
UN	*United Nations*
US	*United States*
USAID	*United States Agency for International Development*

Introduction

Agriculture is crucial for development in Africa, as the majority of the population lives in rural areas and at least 70 percent of the 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).

The period covered in this report was in many ways a positive year for African agriculture. The G8 Summit, held in July 2009 in Italy, recognized the importance of agriculture for development and the critical need to increase financial and technical support to global agriculture and food security amid emerging challenges such as the global economic crisis. Leaders at the summit issued an official statement on global food insecurity and pledged to mobilize $20 billion to tackle the issue in the next three years. At the national level, dozens of African countries have pledged to implement the Comprehensive Africa Agriculture Development Programme (CAADP) of the New Partnership for Africa's Development (NEPAD) and the African Union (AU). This African-led plan aims to stimulate agriculture on the continent to achieve the first Millennium Development Goal (MDG1) of halving poverty and hunger by 2015. To do so, countries are expected to pursue 6 percent average annual agriculture growth at the national level, allocate 10 percent of national budgets to the agricultural sector, and improve overall policy efficiency through peer-review and accountability.

In addition, many African governments are now allocating more resources to agriculture. At the continental level, the share of agricultural spending in governments' total expenditures has increased by 75 percent between 2000 and 2005 with eight African countries allocating at least 10 percent of their budgets to the sector. Economic growth has also increased in Sub-Saharan Africa (SSA), from an annual average of approximately 3 percent in the 1990s and early 2000s to nearly 5 percent from 2005 to 2008. Agricultural growth has also spread to more countries (Badiane 2008). Between 2001 and 2003, only five countries—Angola, Mali, Mozambique, Namibia, and Sudan—had achieved agricultural growth rates at or above 6 percent. By 2005, the number had grown to nine countries: Angola, Burkina Faso, Republic of the Congo, Eritrea, Ethiopia, Gambia, Guinea-Bissau, Nigeria, and Senegal. In 2007, seven countries met the CAADP targeted 6 percent agricultural growth rate and 10 countries met it in 2008. In addition, actual cereal output has increased recently, partly in response to higher food prices. This increase is projected to continue in 2010.

Yet these positive signs over the past year have been coupled with increased volatility and uncertainty in agricultural markets. The food crisis, which propelled international food prices to triple their 2003 levels, peaked in mid-2008. Then prices fell dramatically in the latter half of the year as the international recession set in. These back-to-back crises have left poor farmers in Africa at the mercy of increased

price volatility and given them less access to resources, credit, and social protection. Moreover, as this report shows, the food price crisis has the potential to derail the progress made toward reducing poverty and hunger in many African countries.

The purpose of this report is to evaluate trends in agricultural development, performance, and spending in Africa, and to track corresponding progress in key poverty and hunger indicators following the recent food price crisis. The report also draws on policy research results in the literature to highlight some of the strategic policy options available to African governments for accelerating agricultural growth in line with CAADP principles. In this regard, it is a flagship report of the ReSAKSS initiative to inform and support the CAADP agenda by reviewing the progress of implementation and performance against a number of key benchmarks. The report begins by reviewing recent trends in agricultural development over the past year, including progress with the CAADP process and challenges posed by volatile food prices. The second chapter reviews resource flows to the agricultural sector by governments and donors, and reviews whether these flows have been of sufficient quantity and quality. The third chapter reports on recent agricultural and economic performance indicators, including growth, agricultural productivity, and trade trends. The fourth chapter reviews recent progress made at the regional and national levels towards poverty reduction and hunger alleviation in the context of volatile prices of the past year. The report concludes with policy recommendations and a summary of overall trends.

1. Recent trends in agricultural development in Africa

| *Progress in the agricultural sector: Implementation of the Comprehensive Africa Agriculture Development Programme (CAADP)*

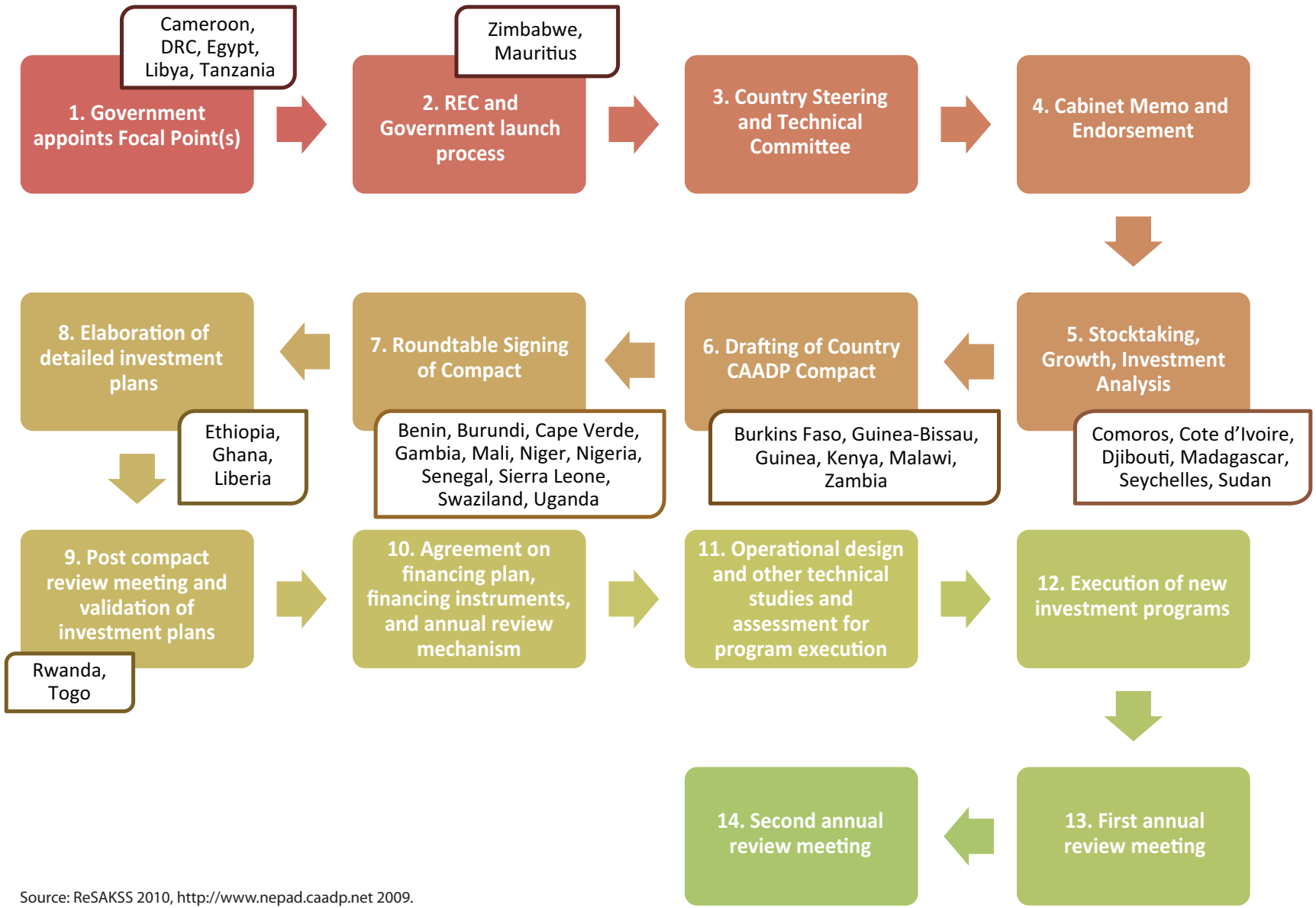
Although several challenges to the agriculture sector in Africa and the world emerged in 2008 to early 2009, there were significant gains–particularly at the institutional and political levels. The African Union (AU) adopted the CAADP in June 2003 at the AU Summit in Maputo, Mozambique. This framework sets the achievement of 6 percent annual agricultural growth as its main goal. Attendees also acknowledged that inadequate investment in the sector was a key constraint on 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 public agricultural spending at the center of national growth and poverty reduction strategies. These are the strategies aimed at putting countries on track toward achieving the first Millennium Development Goal (MDG1) of halving poverty and hunger by 2015.

At the country level, CAADP implementation is primarily a process of aligning national agricultural policies, strategies, and investments with CAADP principles and targets. The process builds on each country's ongoing efforts and is led by national governments and key stakeholders, with coordination by the Regional Economic Communities (RECs), the secretariat of the New Partnership for Africa's Development (NEPAD), and the AU. Each country, in collaboration with key partners and experts, conducts several tasks that lead to a Roundtable meeting. Then the country signs its own CAADP Compact. The compact specifies long-term investment commitments for agricultural growth and development (NEPAD 2005). The steps include

1. taking stock of ongoing agricultural development efforts in the country and identifying gaps that need to be filled to help increase growth and to reduce poverty and hunger,
2. specifying the strategic options for and sources of poverty-reducing growth to guide long-term development efforts in the agricultural sector,
3. estimating long-term funding needs to exploit the growth and poverty-reduction potential associated with the identified options and sources of growth, and
4. identifying review, dialogue, and knowledge mechanisms to facilitate the transition toward evidence-based and outcome-oriented strategy planning and implementation, thereby ensuring better outcomes.

Since CAADP ratification, numerous countries have begun the implementation process and sixteen—Benin, Burundi, Cape Verde, Ethiopia, Gambia, Ghana, Liberia, Mali, Niger, Nigeria, Rwanda, Sierra Leone, Senegal,

FIGURE 1— THE COUNTRY CAADP PROCESS AND COUNTRY STATUS, FEBRUARY 2010



Source: ReSAKSS 2010, http://www.nepad.caadp.net 2009.

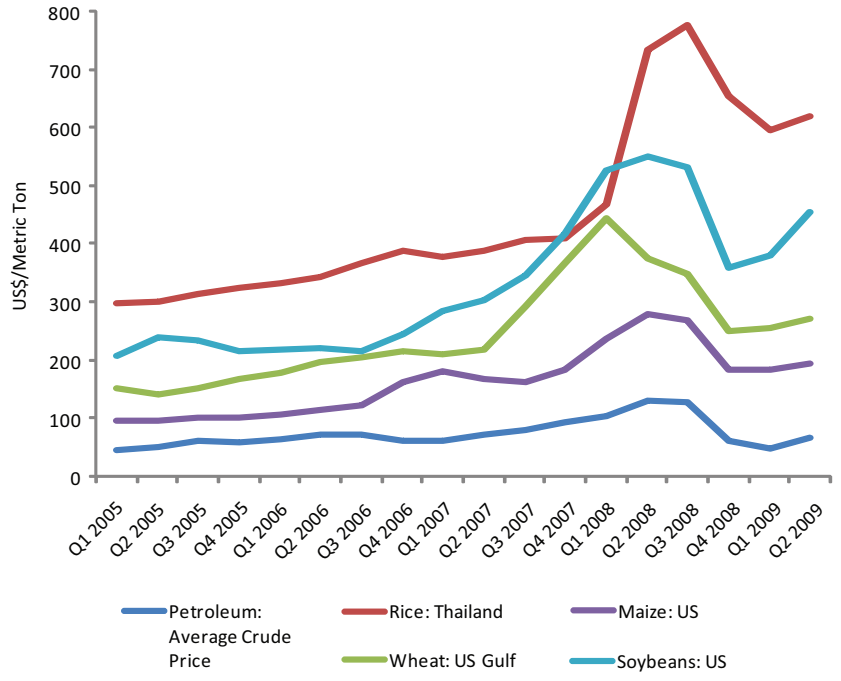
Swaziland, Togo and Uganda—have signed their CAADP country compacts and are now moving on to the post-compact stages. Several other countries are scheduled to sign by mid 2010 (**Figure 1**).

| *Threats to the agricultural sector: High and volatile food prices*

The year 2008 was one of extreme variability for international food prices. In the first half of the year, prices increased for nearly every agricultural commodity (von Braun 2008a). For instance, "at their peaks in the second quarter of 2008, world prices of wheat and maize were three times higher than at the beginning of 2003, and the price of rice was five times higher" (von Braun 2008a, 1). The Food and Agriculture Organization of the United Nations (FAO) reported that as of mid-2008, the global food price index had shot up nearly 40 percent since 2007 (FAO 2008b). The climb in global food prices was driven by increases of 60 to 165 percent in the prices of key crops such as maize, wheat, soybeans, and rice during the same period (**Figure 2**). Oil prices also rose sharply.

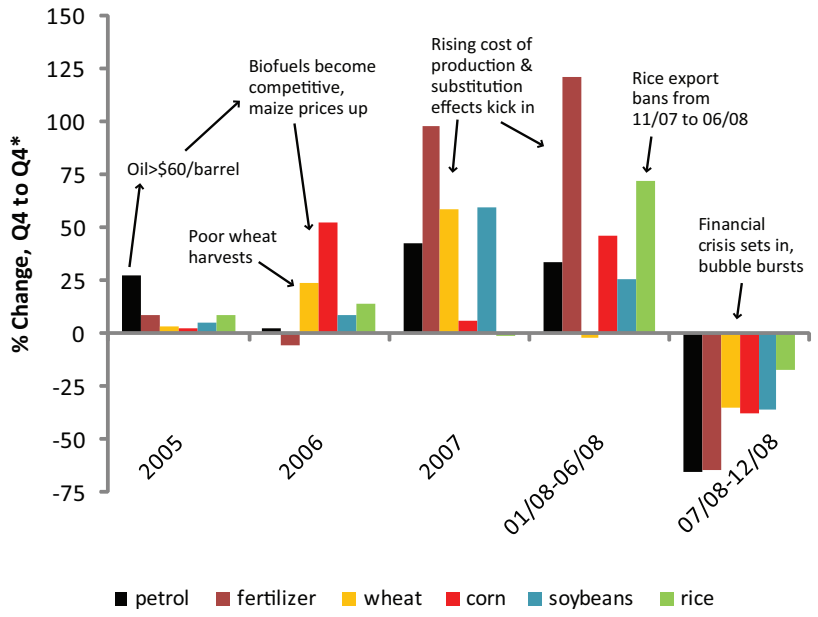
Starting in mid- to late-2008, international food price levels fell by 30 to 40 percent (von Braun 2008a). However, these declines do not appear to have been sufficient to return prices to their pre-spike levels, as shown in **Figure 2**. Although there was a small production response to the higher prices, these reductions in food prices occurred farther and faster than can be explained through production gains alone. Rather, the price slide can be explained by other factors such as the financial crisis, the fall in crude oil prices, and the appreciation of the U.S. dollar (FAO 2008b). Rather than returning global food markets back to normal, the price slide's arrival on the heels of the price spike, along with the declining availability of credit and employment, has actually made food security more precarious. The dominant characteristic of agricultural markets is now price uncertainty.

FIGURE 2—TRENDS IN REAL INTERNATIONAL PRICES OF KEY CEREALS: Q1–2005 TO Q4–2008



Source: IMF 2008. Data are deflated by the US GDP deflator.

FIGURE 3—THE TIMING OF COMMODITY PRICE RISES AND THEIR ASSOCIATED CAUSES, 2005 TO 2008



Source: Heady and Fan 2008.

▷ CAUSES OF THE 2008 FOOD PRICE CRISIS

The rapid surge in the prices of key staples prompted a great deal of concern in developing countries and in the international community, as well as an urgent search for the causes. While accounts differ as to which factors were the leading causes, most international experts broadly agree with the "perfect storm" hypothesis—that a range of interacting factors caused the price surge. These factors include

1. rapid growth in demand from China and India,
2. financial market speculation,
3. hoarding (export restrictions),
4. weather shocks,
5. depreciation of the U.S. dollar,
6. rising oil prices,
7. biofuels,
8. agricultural productivity decline, and
9. decline of stocks.

Figure 3 provides some summary evidence that is broadly consistent with the causes listed above. Oil prices were the first to rise, which in turn made biofuels profitable, leading to a rise in the price of maize in 2006. Bad wheat harvests in several major producing countries led to a moderate rise in wheat prices in 2006, but other prices were mostly stable. In 2007, however, rising oil and fertilizer costs contributed to rising production costs, and price rises in maize and land reallocation from soybeans to maize undoubtedly induced substitution price effects. The major change in 2008 was the advent of export bans and panic buying in international markets, especially in rice. Meanwhile, fertilizer and oil costs rose in the first half of 2008. In the second half of 2008 the food price bubble burst, major harvests were much improved, and the financial crisis set in. All of these factors contributed to a sharp fall in prices.

▷ THE IMPACT OF THE 2008 GLOBAL FOOD CRISIS IN AFRICA

The rise in international food prices understandably caused considerable concern around the globe, and this was certainly true in Africa. First, as the world's poorest region, Africa already suffers from high rates of malnutrition (see Chapter 4), which makes the impact of any reductions in food consumption much more severe. Second, the typical African household spends 50 to 70 percent of its budget on food (von Braun 2008, et al. 2008). Third, while Africa is mostly rural, low agricultural productivity means that many rural African households may still be net food consumers rather than net producers. Add to that the fact that Africa's urban population has soared over recent decades, particularly in countries like Nigeria, and it is clear many Africans are highly vulnerable to food inflation (von Braun 2008b). Because many countries were unable to meet domestic demand for food, social unrest and riots ensued in places such as Burkina Faso, Cameroon, Côte d'Ivoire, Egypt, and Senegal (Ngongi 2008). Yet in other countries, the transmission of high international food prices has been minimal.

The reasons for this variation in the effects of rising international food prices are quite complex. African countries differ greatly in terms of their

1. agricultural production (staples versus cash crops),
2. the number of net food consumers,
3. dietary diversity,
4. dependence on cereals in general and cereal imports in particular,
5. the extent to which the cost of higher food imports was offset by rising commodity exports and ample foreign reserves,
6. the ability of African governments to mitigate the transmission of international prices into domestic markets through exchange rate adjustments or tariff reductions, and perhaps most importantly,
7. the extent to which local events interact with global food inflation.

DOMESTIC FOOD PRICES

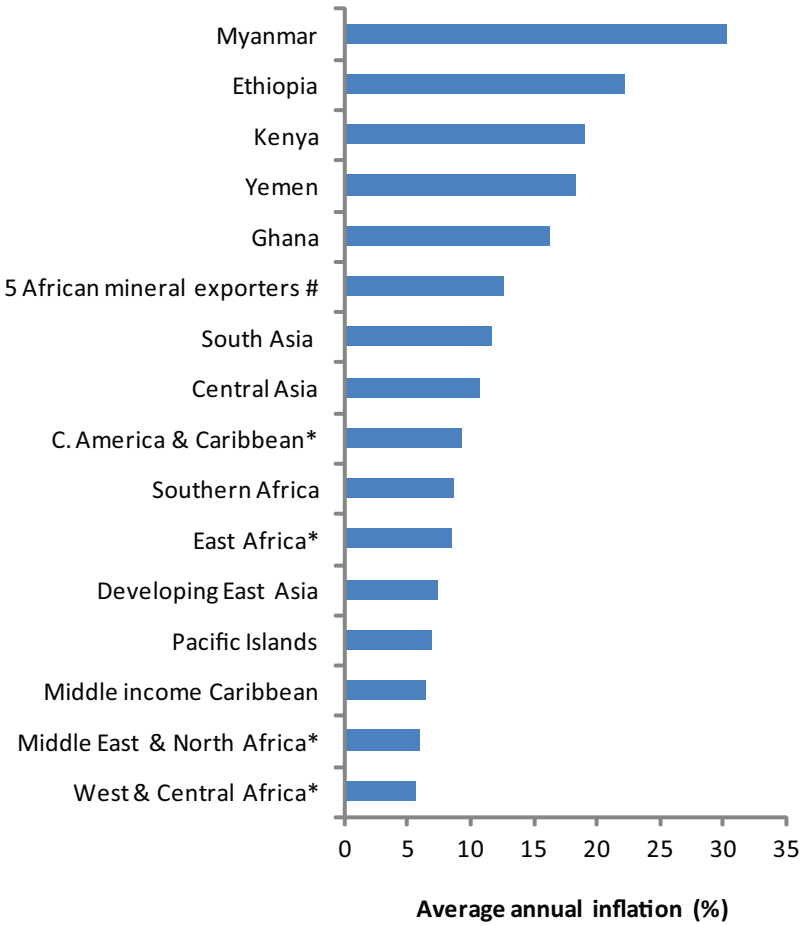
National and regional factors have also been very important in driving domestic food prices. The degree to which a country or region's markets are integrated with global markets can determine how much of the international price spike is transmitted to local markets (Benson et al. 2008). If a country is isolated, it is less likely to be directly impacted by the global food crisis.

Regional analyses carried out by research partners of the ReSAKSS network on domestic food prices indicate that high international prices were slow to transmit to both Eastern and Southern Africa and that many countries have not yet experienced the subsequent decrease in food prices (Macharia et al. 2009 and Minde et al. 2008).

In Eastern and Southern Africa, domestic food prices increased with some variation across countries in 2008, although the rate at which food prices increased was slower than the international rate. In the region, the countries with the smallest food price index increase were Malawi (11 percent), Zambia (13 percent), and Tanzania (13 percent). These three countries were significant food exporters during this period, but each recently introduced maize export bans, which may have shielded them from external price increases. Namibia and South Africa experienced medium increases in domestic food prices compared to their neighbors throughout the Southern African region. Although Namibia is a large food importer, it produces a large portion of its needs for grains. Therefore, compared to other Southern African countries, it experienced a moderate domestic price increase of 17 percent. Likewise, prices in South Africa increased by 16 percent, probably due to the counteracting effects of its large and stable food economy on the one hand and its depreciating currency on the other hand. The country in the region that experienced the largest domestic food price increase was Lesotho (20 percent), which is heavily reliant on imported food.

Local policies and events also contributed to the variable impact across African countries. For example, in Ethiopia, droughts and monetary policies contributed to food inflation while civil conflict was a primary cause in Kenya. Ghana also experienced a high rate of inflation, although this was not chiefly due to food

FIGURE 4—AVERAGE ANNUAL CPI INFLATION FROM JANUARY 2005 TO JULY 2008



Source: IMF 2008.
Notes: Inflation is calculated until July 2008 wherever possible. # The five mineral exporters are Nigeria, Zambia, Botswana, Angola, and Sierra Leone (the latter is only a moderate exporter, however). *Indicates that the regional group excludes any countries that are listed individually or in the mineral exporter category, that is, West and Central Africa excludes Nigeria, Ghana, and Sierra Leone, and East Africa excludes Kenya and Ethiopia.

inflation. In mineral-exporting countries, inflation may have been high due to both food inflation (because of food imports) and nonfood inflation associated with rising commodity prices. In contrast to these select African countries, general inflation in much of the rest of Africa was actually quite low (**Figure 4**). Considering that food can make up as much as 50 percent of the consumer price index (CPI) bundle in African countries, the CPI is a good clue as to food price trends in Africa, especially in the absence of longer term data.

More commodity-specific urban food price data collected by USAID's Famine Early Warning System Network (FEWSNET) also suggest that the impact of rising food prices varied across Africa. **Figure 5** shows the percentage change in nominal urban retail prices of maize.[1] In about one quarter of the countries for which data is available, prices rose by 10–15 percent. This is actually a sizeable rise, given that many Africans heavily consume maize. In another quarter of the countries, sample maize prices rose by around 7 percent, and in another quarter they rose by around 5 percent, while prices were steady in the remaining countries. In a few countries, maize prices rose at even higher rates. For example, maize prices rose by 32 percent in Zambia, 65 percent in Mozambique, and over 100 percent in Malawi and Tanzania.

Figure 6 looks at the same statistics for rice, which is imported more heavily than maize. Rice prices in the countries shown in **Figure 6** generally rose by less than maize prices despite experiencing larger international prices increases. One reason for this is that the international price increases for rice were relatively short-lived compared to those for maize. Indeed, international rice prices peaked in the middle of 2008 but declined rapidly thereafter, so the worst few months of 2008 may not actually be reflected in **Figure 6**. In addition, rice has domestic substitutes, including some domestically-produced rice varieties as well as other staple foods which may have dampened the international price transmission to domestic markets. Moreover, some countries reduced or removed tariffs on rice imports. Nigeria, for example, removed a 100 percent tax on rice imports. Hence, through

[1] Since the prices are not deflated by a non-food CPI, it could be argued that these figures overstate the real price rise, but the exaggeration is probably only slight.

government policies and market forces, some countries were able to buffer the international price rise.

▷ POLICY OPTIONS

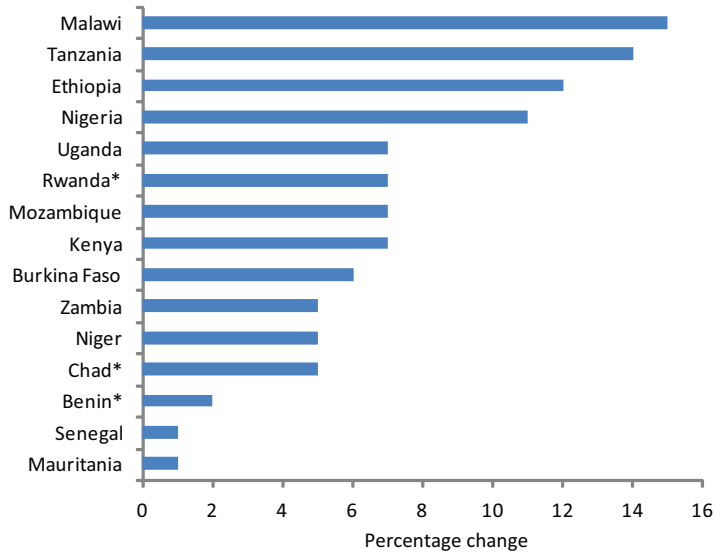
A range of short, medium, and long-term policy options are available to governments. However finding the right mix of measures that do not counteract one another is difficult. For example, restricting food exports to conserve domestic supplies may protect the poor by capping local food prices, but it denies local farmers access to profitable external outlets for their crops. Therefore the challenge for governments rests in identifying and implementing policies that protect the poor from price increases while also stimulating food production in the long run.

Most experts now recommend a two-level approach to this challenge that focuses on (1) short-term coping strategies that protect the poor without distorting the domestic food economy and (2) long-term "resilience" measures that allow farmers to take advantage of production incentives while also stabilizing the economy to prevent vulnerability to future crises and price variability.[2] Donors can help "African countries meet the higher foreign exchange and budgetary resource requirements, while avoiding distortionary interventions in the sector" (Badiane 2008).

Without continued and increased investments to the agricultural sector, the food crisis could return with a vengeance. According to a report by the International Food Policy Research Institute (IFPRI), if agricultural investments taper off due to shrinking available credit, food production will contract even further which could lead to future food price spikes (von Braun 2008a). This time, because poor people are making lower wages (due to the decreased production that accompanies a recession), the effects will be more severe. If, however, agricultural investments are maintained during the recession, IFPRI researchers found that developing countries can avoid many of the negative effects of slower growth.

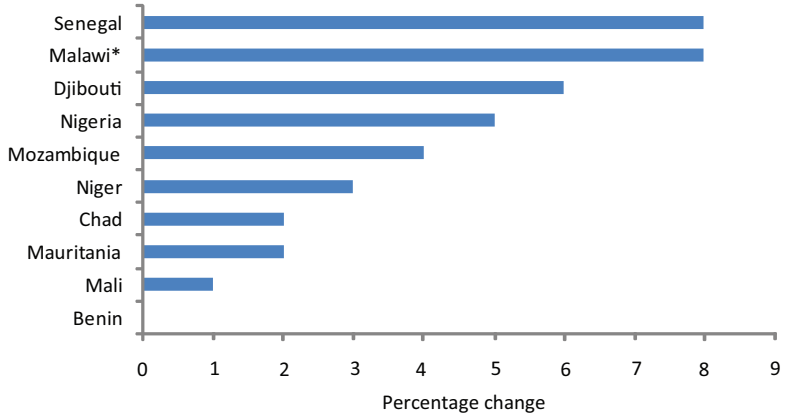
[2] See for instance, Badiane 2008; Minde, Chilonda, and Sally 2008; von Braun 2008 *Food and Financial Crises: Implications for Agriculture and the Poor*; and von Braun, Ahmed, et al. 2008.

FIGURE 5—PERCENTAGE CHANGE IN NOMINAL RETAIL MAIZE PRICES IN URBAN CENTERS, 2008



Source: FEWSNET 2009. *Note that these countries' data applies from mid-2007 to mid-2008 rather than the calendar year 2008.

FIGURE 6—PERCENTAGE CHANGE IN NOMINAL RICE PRICES IN URBAN CENTERS, 2008



Source: FEWSNET 2009. *Note that these countries' data applies from mid-2007 to mid-2008 rather than the calendar year 2008

BOX 1 EXAMPLES OF GOVERNMENT RESPONSES TO HIGH FOOD PRICES[3]

In Eastern and Central Africa, Ethiopia banned exports of the main cereals and grain stockpiling and suspended the World Food Programme's (WFP) local purchases for emergency interventions. The government also imposed a temporary 10 percent surtax on luxury imports to fund food subsidy interventions, including the distribution of subsidized wheat to low income urban households. The Republic of Congo reduced the rate of the VAT on basic imported foodstuffs from 18 to 5 percent. Kenya allowed up to 270,000 tons of duty-free maize imports from South Africa and removed sales taxes on rice and bread. The government also reduced the import tax on wheat from 35 to 10 percent.

In Southern Africa, South Africa plans adjustments to the amounts paid in social grants to the poor to mitigate the impact of rising food prices. In Zambia, following seasonal floods, and in spite of a large exportable surplus of maize in the 2007/08 marketing year (May/April), the government reinstated the export ban applicable for any new contracts. Zimbabwe continues to control imports of maize, wheat, and sorghum which are sold at subsidized prices. Although an early import contract of 400,000 tons of maize from Malawi partially mitigated the increase in import prices this year, domestic consumer price inflation, measured at over 26,000 percent in November 2007, drastically eroded Zimbabwean consumers' purchasing power.

In Western Africa, Benin and Senegal enacted price controls and waived tariffs. Ghana eliminated all import duties on rice, wheat, yellow corn, and vegetable oil and provided free tractors and fertilizer subsidies for farmers. Liberia banned all food exports completely in May 2008. Nigeria suspended tariffs on rice imports for six months in May 2008.

In addition to long-term funding for agriculture, the African continent needs expanded intraregional trade in food commodities. Countries in Sub-Saharan Africa (SSA) will likely differ in terms of their exposure to international food prices. Recent trends indicate that some will not register large direct impacts from food price rises, either because much of their population relies on non-tradable staples (such as cassava in Mozambique) or because they are not fully integrated into global food markets, due to a range of commodity transfer costs that give them a degree of "natural protection" from conditions in global markets (for example in Malawi, Zambia, or Zimbabwe). For this latter group, regional markets will be increasingly important (Minde et al. 2008).

RESPONSES OF DONORS AND GOVERNMENTS

As a response to the crisis, international donors pledged over US$12 billion in development aid at the summit of the Food and Agriculture Organization of the United Nations (FAO) in June 2008 (von Braun 2008a). However, with the sudden onslaught of the financial crisis, only US$1 billion has been doled out (Montero 2008). Moreover, donors merely directed more funds to food aid relief and away from longer-term development goals (Badiane 2008).

In Africa, as in other regions of the world, the initial response to the food price increases has generally been a protective one (**Box 1**). The focus has been on ensuring the availability of local food, keeping a lid on consumer prices, and supporting the most vulnerable. These have largely been considered coping mechanisms, rather than efforts to encourage an adequate supply response. The two most frequently used policies in Africa in response to high food prices have been reduced taxes on foodgrains (over 40 percent of countries in Africa used this) and price controls or consumer subsidies (in over 30 percent of African countries).[4] Other measures include export bans and stock drawdowns. These measures are short-term and fairly unsustainable. Moreover, they could exacerbate the

[3] FAO 2008b.

[4] For a listing of specific policies followed by African countries, see the World Bank chart: Country Policies and Programs to Address Food Prices, or the Food and Agriculture Organization of the United Nations (FAO) July 2008, or Benson, et al. 2008.

crisis because they may discourage a production response while also making the international food market smaller and more volatile (Ngongi 2008, FAO 2008b).

▷ GENDER ASPECTS OF THE FOOD CRISIS

Men and women are likely to be impacted by the food crisis differently. According to IFPRI research, women are less able to cope with and overcome crises of all kinds because they have less access to and control over resources and assets (Quisumbing, Meinzen-Dick, and Bassett 2008). Rising prices can have repercussions for the entire household, as women face greater time constraints when they have to travel farther to find cheaper, but more labor-intensive, foods to prepare. Moreover, women are often the "shock absorbers" for threats to household food security, sacrificing their own nutrition for the benefit of others in the home. At the same time, gender conflicts and negotiations within the household may limit the household's ability to increase production, thereby hindering its ability to benefit from higher prices. All of these factors must be considered in assessing the impact of the food crisis.

| *Conclusion*

This chapter has shown that African agriculture has indeed made progress despite facing immense challenges in dealing with global uncertainties following the food price and financial crisis in 2008 and 2009, respectively. African countries have made considerable progress in designing, implementing, and monitoring agricultural and rural development strategies as they strive to align with the CAADP agenda. In 2008-2009, over a dozen African countries signed their CAADP country compacts, with several additional countries scheduled to sign by early 2010.

The food price hikes in Africa in 2008 were fairly similar to those experienced in the rest of the world, with the exception of "sticky" domestic prices in some countries. That is, some prices did not increase at the same rate as international prices and some have yet to come back down, as international prices generally have. Nevertheless, the greatest trend has been price volatility across and within African countries, which is harmful due to the uncertainty it creates in agricultural markets. This volatility has also resulted in a mismatch between input and output prices for farmers who invested in their production during the price upswing (when inputs were expensive) and are now harvesting and trying to sell their goods during a price downswing.

In addition, the food price crisis has generally had negative welfare effects on the African population, as very few farmers have had the opportunity to benefit from the higher prices through increased production. The financial crisis and international economic slowdown have exacerbated the food crisis situation rather than remedied it. They have shrunk the amount of capital available for investment in agriculture, shrunk employment and wages, and decreased the amount of credit available for farmers. Under these current trends, it is possible that a larger, more harmful food crisis could be triggered in the near future.

Given these challenges, it is only that much more imperative that the CAADP implementation process moves forward to better prepare countries against such future shocks. There is a need for countries and donors alike to strengthen the resilience of agriculture and rural economies in Africa. This will require higher, consistent, and effective resource allocation to the sector to increase agricultural growth, food security, and stability. The next chapter reviews expenditure trends to African agriculture by governments and donors.

2. Investment and resource flows to African agriculture

From the 1990s to the early 2000s, both donor and government allocations to agriculture were very low. In some countries, this remains true. However there is now renewed interest in allocating more resources to the sector, particularly to meet the 10 percent budgetary allocation target of CAADP. This chapter discusses recent trends in agricultural funding in Africa and the efficiency of resource use.

| *Tracking government expenditures on agriculture in Africa*

The latest evidence shows that agricultural spending as a share of total spending in Africa has ranged from 4 to 6 percent on aggregate since 1980 (Johnson et al. 2008). African countries as a whole, therefore, had not met the CAADP 10 percent budgetary allocation target by 2008. Despite a 75 percent increase in the share of agricultural spending from 2000 to 2005, the target remains unmet because of the very low initial base prior to 2000. Only eight countries—Burkina Faso, Ethiopia, Ghana, Guinea, Mali, Malawi, Niger and Senegal —reached or surpassed 10 percent (**Table 1** and **Figure 7**). Nine of the reporting countries reached expenditure shares between 5 and 10 percent while 28 countries devoted less than 5 percent of their total budgets to the sector.

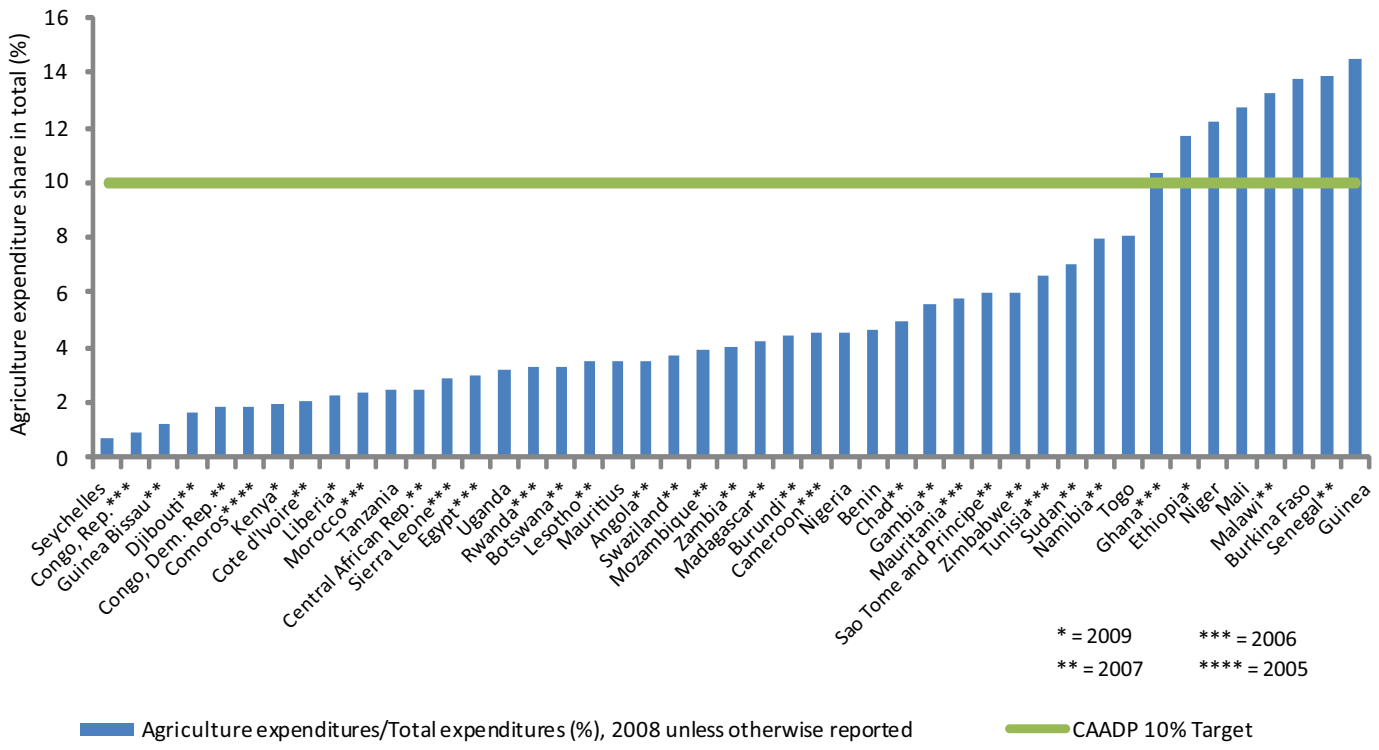
Since the 2003 Maputo Declaration, many African governments have increased their budgetary allocations to the agriculture sector. In 2003, only 5.9 percent of

TABLE 1—PUBLIC AGRICULTURAL EXPENDITURES AS A SHARE OF TOTAL EXPENDITURES, 2008 UNLESS OTHERWISE NOTED

At least 10 percent	5 percent to less than 10 percent	Less than 5 percent
Burkina Faso	Chad[2]	Angola[2]
Ethiopia[1]	Gambia[2]	Benin
Ghana[3]	Mauritania[3]	Botswana[2]
Guinea	Namibia[2]	Burundi[2]
Malawi[2]	Sao Tome and Principe[2]	Cameroon[3]
Mali	Sudan[2]	Central African Republic[2]
Niger	Togo	Comoros[4]
Senegal[2]	Tunisia[3]	Congo, Dem. Republic[2]
	Zimbabwe[2]	Congo, Republic[3]
		Cote d'Ivoire[2]
		Djibouti[2]
		Egypt[3]
		Guinea Bissau[2]
		Kenya[1]
		Lesotho[2]
		Liberia1
		Madagascar[2]
		Mauritius
		Morocco[3]
		Mozambique[2]
		Nigeria
		Rwanda[3]
		Seychelles
		Sierra Leone[3]
		Swaziland[2]
		Tanzania
		Uganda
		Zambia[2]

Sources: Based on ReSAKSS data collected from various national government sources and IMF 2009.
Notes: 1. Estimate for 2009; 2. 2007; 3. 2006; 4. 2005; 5. 2004

FIGURE 7—AGRICULTURE EXPENDITURE SHARES AND THE CAADP 10% TARGET, MOST CURRENT YEAR REPORTED.

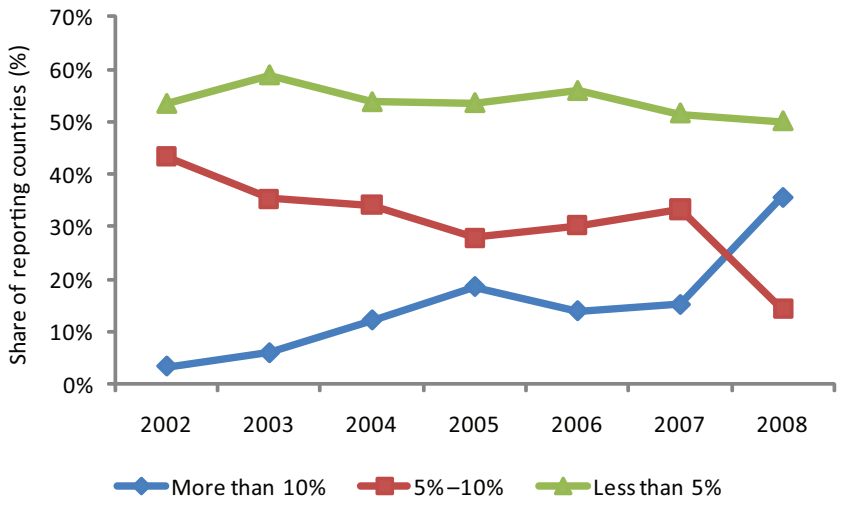


Sources: Based on ReSAKSS data collected from various national government sources and IMF 2009.

African countries were spending at least 10 percent of their total budget allocations on agriculture. This figure increased to 15.2 percent in 2007 and 35.7 percent in 2008 (**Figure 8**). 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 the Gambia, Sao Tome and Principe, and Togo. This upward trend indicates that some countries may be 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.

There is an alternative measure of the priority given to agriculture other than agricultural expenditures as a share of total expenditures: the ratio of agricultural expenditures to agricultural GDP. This measure of government spending on agriculture explicitly weighs 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

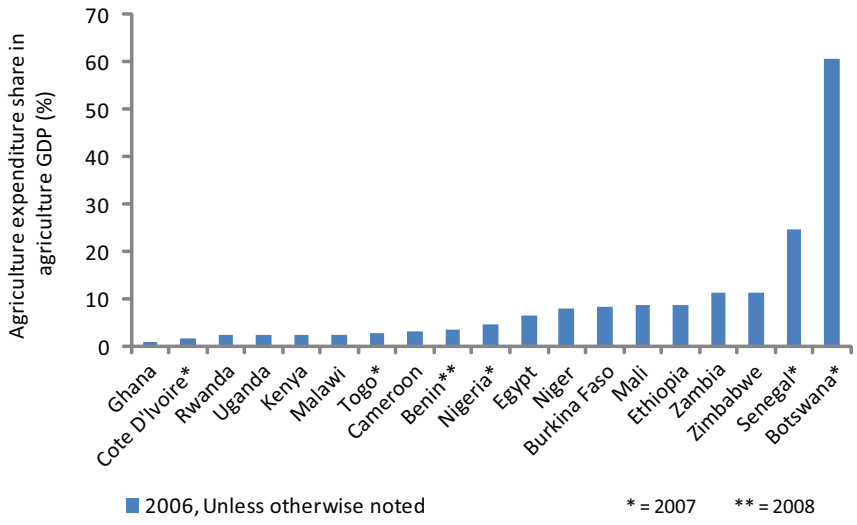
FIGURE 8—PROGRESS TOWARD 10% AGRICULTURAL EXPENDITURE SHARE



Sources: Based on ReSAKSS data collected from various national government sources and IMF 2009.

Notes: 2009 was excluded due to limited data availability.

FIGURE 9—AGRICULTURAL EXPENDITURE AS A SHARE OF AGRICULTURAL GDP, MOST RECENT YEAR REPORTED



Sources: IMF 2008; Benin, Thurlow, Diao, McCool and Simtowe 2008; Benin, Thurlow, Diao, Kalinda and Kalinda 2008.

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 this represents more than 60 percent as a share of agricultural GDP (**Table 2 and Figure 9**).

The ratio of agricultural expenditures to agricultural GDP is low in Africa when compared with Asia. On aggregate, Africa spent between 5 and 7 percent as a share of agricultural GDP, while Asia spent between 8 and 10 percent. With the exception of Botswana, Zambia and Zimbabwe, African countries have spent less than 10 percent of their agricultural GDPs on agriculture in recent decades. Yet, country

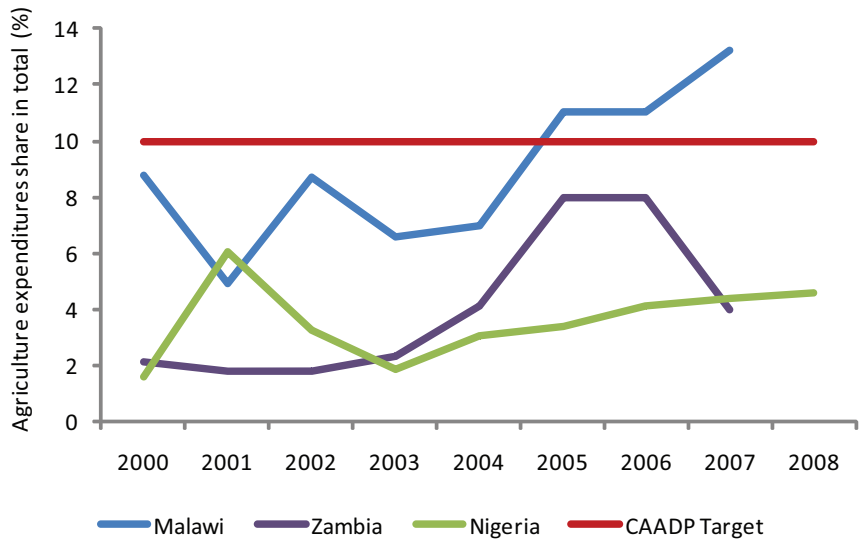
TABLE 2—LEVEL OF AGRICULTURAL EXPENDITURES AS A SHARE OF AGRICULTURAL GDP, MOST RECENT YEAR REPORTED (2006, UNLESS OTHERWISE INDICATED)

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

Sources: IMF 2008; Benin, Thurlow, Diao, McCool and Simtowe 2008; Benin, Thurlow, Diao, Kalinda and Kalinda 2008.

Notes: 1. 2007; 2. 2008.

FIGURE 10—AGRICULTURE EXPENDITURE SHARE IN TOTAL EXPENDITURES FOR MALAWI, ZAMBIA AND NIGERIA, 2000-2008



Sources: ReSAKSS data collected from various national government sources, IMF 2009 and Benin et al. 2008.

TABLE 3— COMPOSITION OF AGRICULTURE SPENDING

	Ghana (2000-2005)	Malawi (2000-2007)	Nigeria (2001-2005)	Zambia (2000-2008)
Price support				20.2
Inputs			43.5	39.7
Food security		50.5	22.0	
Livestock			2.7	3.3
Fishery		3.2		1.1
Crops, livestock, and fishery (aggregated)	23.7			
Forestry	3.5	7.3		4.1
Cocoa	62.2			
Research and extension	10.6	13.0		21.7

Sources: Benin, Thurlow, Diao, Kalinda and Kalinda 2008; Benin, Thurlow, Diao, McCool and Simtowe 2008; Mogues et al. 2008; Nijwa et al. 2008; Govereh et al. 2009.

level data shows that the range can be considerable. Botswana had the highest percentage in 2006 at over 60 percent while Cote d'Ivoire and Ghana spent less than 2 percent in the same year.

The inability of African countries 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 US$13.6 billion (2007 dollars) annually from 2008 to 2015, with a cumulative total of US$95.7 billion (Fan, S. et al. 2008).[5] This suggests that the continent will need to increase its agricultural spending by at least 20 percent per year.

| *Resource efficiency*

As governments increase their budgetary allocations to agriculture, it is important to further examine the quality of this spending. How are governments allocating these funds? Are these funds coming from government sources or from donors? And is spending diverging from allocations?

To better understand the causes of poor agricultural investment ratios in Africa, three country case studies are drawn from here: Malawi, Zambia, and Nigeria.[6]

Agricultural spending has been increasing in all three countries since 2000, with Malawi even surpassing the CAADP 10 percent target in recent years (**Figure 10**).

In Malawi and Zambia, the majority of this increase in spending on agriculture has come from government sources as opposed to donors (**Figure 11 and Figure 12**). In Zambia, fiscal dependence on development partners for agricultural spending declined from 48 percent in 2000 to 18 percent in 2008. Likewise, in Malawi, the donor share of total government spending on agriculture declined from 41 percent in 2000 to 23 percent in 2007, with a low of 12 percent in 2006. This is a positive development for sustainability and independence from aid but there could also be a need for donors to increase their support for agriculture.

[5] Excludes Zimbabwe as an outlier. Based on a sample of 30 Sub-Saharan African countries.

[6] Govereh, et al. 2009; Mogues et al. 2008 and Njiwa, et al. 2008.

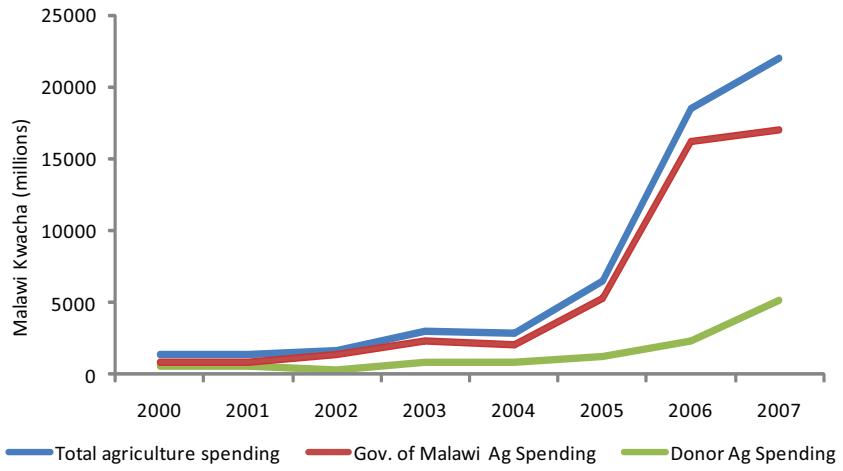
The overwhelming trend for these countries is that they are all investing primarily in one particular program. For instance, Ghana has focused on one particular crop (cocoa), while Nigeria, Malawi, and Zambia have invested most heavily into input support (**Table 3**). Yet input support is a short-run distributive program, which will have short-term productivity gains but not the longer-term results that agricultural research or irrigation investments would have.[7] A single subsector-dominant investment strategy is unlikely to yield desirable outcomes on its own. This pattern raises concerns about the sustainability and balance of agriculture spending (Benin, Thurlow, Diao, Kalinda and Kalinda 2008; Benin, Thurlow, Diao, McCool and Simtowe 2008).

The ratio of actual spending to budgeted spending is known as the investment gap ratio, and is a measure of how efficiently resources are being used. The Public Expenditure and Financial Accountability (PEFA) best practice standard is a maximum of a 3 percent discrepancy between budgeted and actual expenditures, which is equal to a ratio of 97 percent (Mogues et al. 2008). If a country's ratio exceeds 97 percent, it suggests that the government is underusing approved funds which could be a symptom of capacity problems. If the ratio is over 100 percent, it is indicative of government overspending.

Inefficient budget execution may negatively impact policy planning, design, and implementation and can make it difficult to attain goals and expected outcomes for projects and policies. One result is that programs may have to change or end midstream if promised funding does not materialize. Extreme investment ratios also erode the credibility of a government's claim that approved projects will actually be financed.

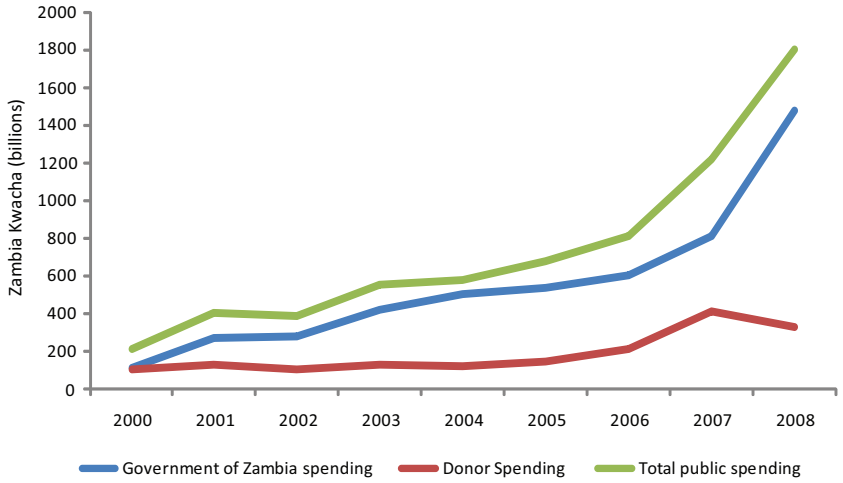
Figure 13 shows the investment gap ratios of both Nigeria and Malawi for the past several years compared to the PEFA standard ratio. From 2000 to 2004/5, both countries had poor budget execution within a range of 48 to 85 percent. This meant that up to 52 percent of budgeted resources for agriculture were not being spent. In contrast, in recent years both countries have overspent the budgeted amount.

FIGURE 11—SOURCE OF AGRICULTURE SPENDING, MALAWI



Source: Njiwa et al. 2008.

FIGURE 12—SOURCE OF AGRICULTURE SPENDING, ZAMBIA

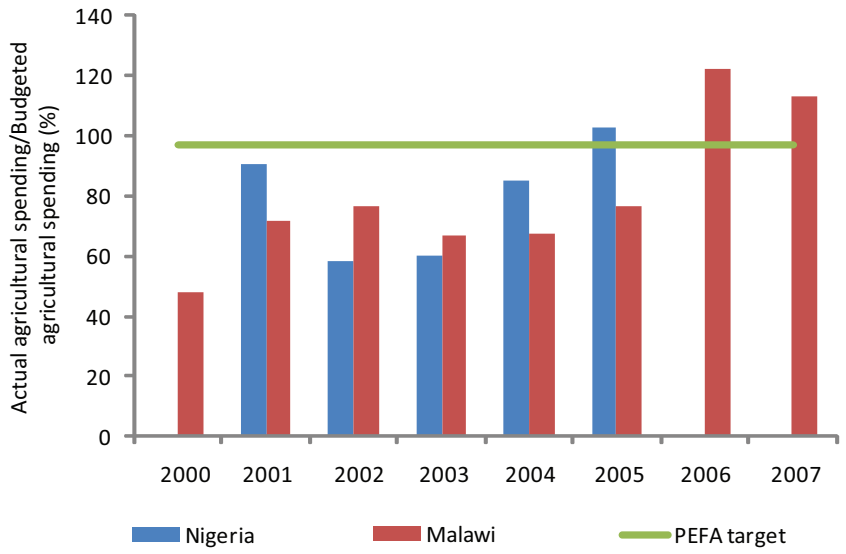


Source: Govereh et al. 2009.

[7] See for example, Thirtle et al. 2003 and Fan et al. 2004.

In both countries, the gap between budgeted agriculture spending and actual spending has largely been driven by deviations in capital outlays, rather than recurrent spending. An exception is Malawi in recent years, which has witnessed a more stable development budget but has been greatly overspending on the recurrent. The recent overspending in Malawi is largely due to overruns in the costs of the subsidy programs. Recurrent spending consists more of salaries and staff expenses, so once they are set they do no often change yearly, whereas projects can be negotiated and can change frequently, making it hard to budget the line items from year to year (which leads to budget under-execution). Another reason for poor budget execution is that budgets are formed based on the demands of constituencies, while fiscally restrained finance ministries often pare down implementation.

FIGURE 13—INVESTMENT GAP RATIOS IN NIGERIA AND MALAWI



Sources: Mogues et al. 2008, Njiwa et al. 2008, and Govereh et al. 2009.
Note: PEFA target is considered the threshold below which the investment gap ratio indicates underutilization of funds. It is set at 97 percent.

| *Development assistance to agriculture*

Development assistance to all developing countries has grown at an annual average rate of 5 percent from 1980 to 2006. Total aid in these developing countries grew from US$7 billion in 1980 to US$27 billion in 2006.

In contrast to the increase in total aid to developing countries since 1980, aid to agriculture fell dramatically in the 1990s. According to the FAO, from 1990 to 1999 total lending to agriculture worldwide from external sources fell by 50 percent (FAO 2008b). In Africa as a whole, donor spending for agriculture as a share of total donor spending 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 **Table 4** 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. 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. Thus, agriculture has not been prominent in the agenda of many donors, perhaps because of pressure to broaden their aid agendas rather than any conscious decision.

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

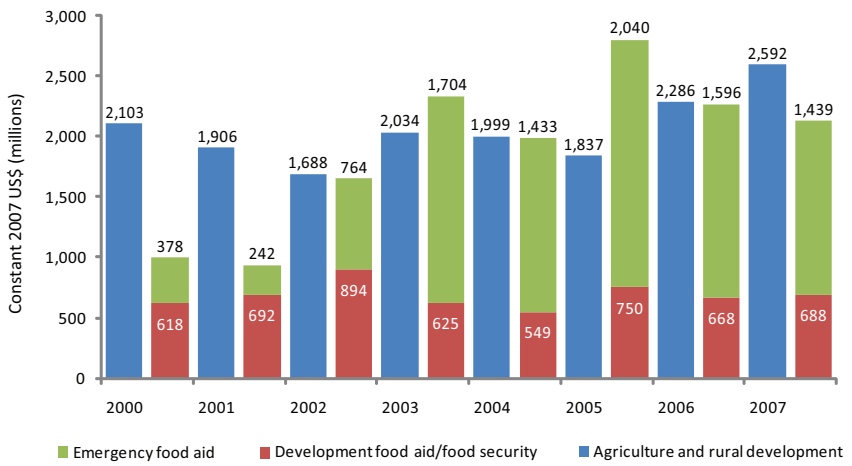
Africa is now facing the same type of long-term food deficit problem that India faced in the early 1960s. As a result of inadequate investment in the African agriculture sector, the continent's overall agricultural productivity has fallen since the mid-1980s, leaving it vulnerable to frequent food crises 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

TABLE 4—AGRICULTURAL AID TO AFRICA

	Aid to agriculture (2007 constant dollars, million)							Agricultural aid as a percent of total aid						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Botswana	0.3	0.4	0.5	0.6	0.6	8.0	..	0.5	0.6	1.0	0.8	0.8	9.0	-
Burkina Faso	22.0	35.4	33.7	35.6	44.5	58.5	7.7	3.2	4.5	4.6	4.4	5.2	2.6	0.8
Cameroon	13.1	13.5	12.6	13.7	23.1	52.7	..	1.4	1.1	0.9	1.2	3.1	1.5	-
Cote d'Ivoire	13.3	5.0	3.3	2.4	15.3	5.3	..	2.5	0.2	0.6	0.6	5.8	1.4	-
Egypt	25.1	31.1	23.0	56.2	71.5	45.4	..	1.1	1.5	1.3	2.6	4.1	2.9	-
Ethiopia	29.4	41.1	21.0	31.3	38.1	46.0	0.2	1.7	2.1	1.0	1.4	1.7	0.7	0.0
Ghana	14.4	17.9	25.5	41.1	38.7	51.1	0.0	1.2	1.5	1.9	1.6	2.1	0.8	0.0
Kenya	21.8	22.3	23.6	19.1	43.9	52.2	7.1	2.4	2.9	2.7	2.1	4.4	4.5	0.5
Malawi	10.1	21.0	14.9	38.1	26.9	47.2	..	1.4	3.5	2.1	5.7	3.6	1.5	-
Mali	31.2	23.0	41.9	40.5	31.6	63.3	6.9	4.6	2.8	5.2	4.7	3.5	2.2	0.6
Morocco	12.7	12.4	13.0	16.2	21.6	26.6	..	1.1	1.2	1.3	1.4	1.7	1.8	-
Nigeria	3.5	5.5	3.5	7.9	6.7	7.4	..	1.1	1.2	0.8	1.1	0.1	0.1	-
Togo	2.3	3.3	2.3	2.2	1.2	1.3	0.3	1.7	3.1	2.5	2.2	1.1	1.2	0.2
Tunisia	16.0	16.6	14.2	13.0	15.0	11.4	..	1.8	2.5	2.3	2.2	2.5	1.6	-
Uganda	11.7	18.7	33.4	38.1	56.6	57.0	7.2	0.8	1.5	2.4	2.4	3.9	1.1	0.4
Zambia	21.2	16.3	13.7	29.9	37.0	39.8	3.1	1.7	1.1	1.0	1.8	1.7	0.8	0.3

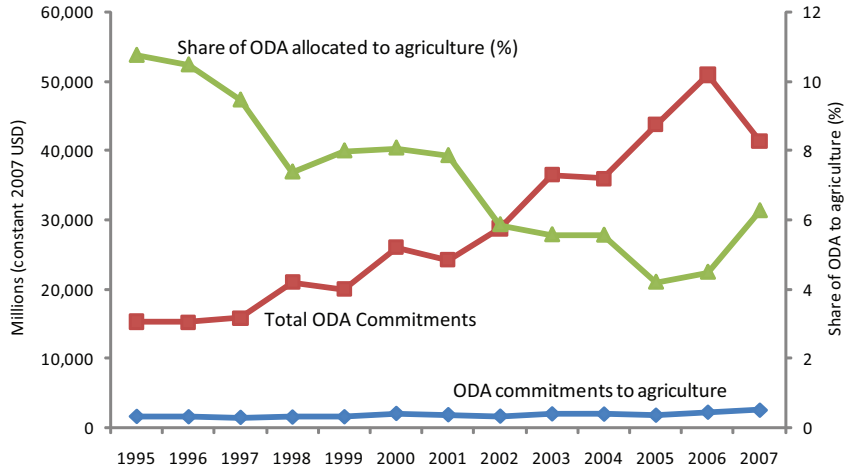
Source: OECD statistical portal accessed on November 5, 2009. Amounts based on gross disbursements.

FIGURE 14—ODA COMMITMENTS TO AFRICAN AGRICULTURE BY TYPE, 2000-2007



Source: OECD CRS 2009.

FIGURE 15—ODA COMMITMENTS TO SUB-SAHARAN AFRICA: LEVEL AND SHARE TO AGRICULTURE



Source: OECD CRS 2009. Based on ODA commitments in 2007.

aid rather than to long-term agricultural development, which further undermines the ability of countries to generate economic and agricultural growth. Although investment to agriculture has increased in recent years, a large and increasing share still is devoted to short-term food aid interventions (**Figure 14 and Figure 15**). Consequently, poverty and hunger persist and threaten the likelihood that some of the countries will reach the MDGs.

| *Conclusion*

Many African governments and their development partners are increasing the quantity of agricultural spending in response to the 2003 Maputo Declaration. Donor spending has increased slightly, but not at the same rate as government spending. While this is good for national independence, it calls for development partners to step up to their commitments and spend "10 for 10". Without question, African governments and donors should increase their investments in the prime movers (human capital, technology, and institutional innovations) to increase farm production and accelerate agricultural growth.

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. Investment strategies must be unique to the specific needs of each country. Moreover, the quality of agricultural spending is also key. As the chapter has shown, while the investment gap ratio has been declining, more attention is still needed to improve program effectiveness. Based on a number of country case studies, government expenditures have focused largely on inputs—fertilizer, seeds—at the cost of investments that will have longer-term impacts on productivity, such as agriculture R&D, irrigation, and rural infrastructure. And, even more importantly, many countries need to improve the execution of their budgets, to avoid any negative impacts on policy planning, design, and implementation, and attain the development goals enshrined in the country CAADP compacts.

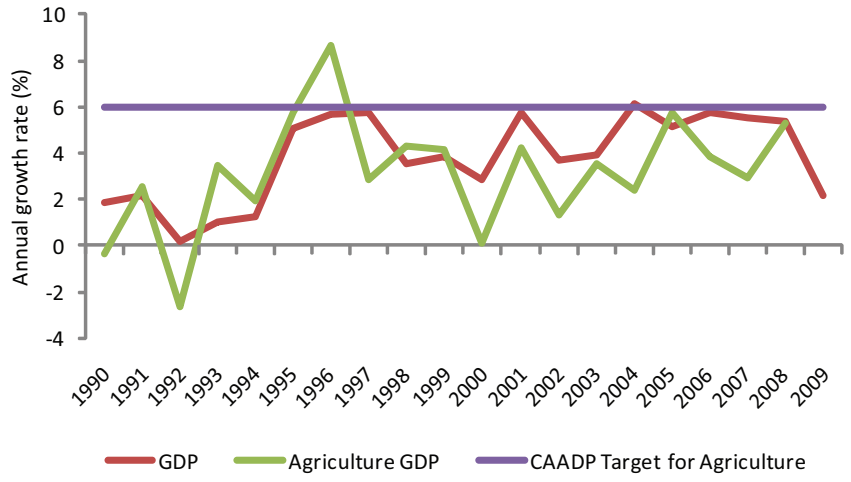
3. Evaluation of African agricultural sector performance

With increased commitments and resources flowing to the agricultural sector, it is expected that performance in the sector will improve. This chapter will show that in fact, agriculture's performance has been positive and improving in recent years on the continent, although direct attribution to increased investment as the main cause is still tenuous. Yet it is still difficult to estimate the full impact of the recent food price crisis and onslaught of the financial crisis on agricultural performance. Therefore, more resources and detailed attention to the sector are still needed to overcome the potential setbacks and to achieve the CAADP targets and MDGs.

| *Economic and agricultural performance*

Over the past two decades, annual growth rates of both agricultural and overall gross domestic product (GDP) increased at the continental level (**Figure 16**). Although agricultural performance varies within and across African countries, recent trends indicate an increase in agricultural GDP growth at the continental and regional levels. Sub-Saharan Africa's agriculture GDP growth rate increased from an annual average of approximately 3 percent in the 1990s and 2000s to 5.3 percent in 2008 (**Table 5**). A similar trend can be observed at the regional level. All regions saw an increase in average agricultural growth rates from approximately 3 percent in the 1990s to 2008, although Southern Africa has seen the most dramatic recent

FIGURE 16—GDP AND AGRICULTURE GDP GROWTH RATES FOR SSA, 1990–2008/09



Source: ReSAKSS averages based on World Bank 2009.
Note: 2009 GDP estimates based on IMF, 2009.

TABLE 5—AGRICULTURAL PERFORMANCE, 1990–2008

		Annual Agricultural GDP Growth (%)				
		1990-1999	2000-2005	2006	2007	2008
East Africa	Burundi	-0.4	-2.5	10.9	2.5	3.4
	Comoros	2.5	4.6	-10.3	3.0	4.5
	Congo, Dem. Rep.	2.1	-1.7	2.5	3.0	3.0
	Eritrea	10.1	5.4	8.8	1.3	-2.0
	Ethiopia	2.8	5.1	10.9	9.4	7.7
	Kenya	2.1	3.0	4.4	2.3	3.0
	Madagascar	1.9	1.8	2.1	2.2	2.8
	Rwanda	3.3	5.1	11.0	-3.0	11.1
	Sudan	4.8	1.8	4.4	3.1	4.0
	Tanzania	3.5	4.8	3.8	4.0	10.6
	Uganda	3.7	2.9	0.9	-0.3	9.1
Southern Africa	Angola	-1.3	13.8	9.8	21.6	27.3
	Botswana	-0.7	-1.1	-0.4	1.8	2.0
	Lesotho	1.5	-4.7	14.9	-8.6	-0.6
	Malawi	9.7	-1.5	11.9	5.9	5.2
	Mozambique	4.6	4.3	10.9	6.6	7.0
	Namibia	4.8	3.7	-0.7	-1.4	41.0
	South Africa	0.8	2.1	-7.9	0.9	1.0
	Swaziland	0.5	1.2	-2.2	2.7	2.8
	Zambia	5.1	1.0	2.2	7.2	3.3
	Zimbabwe	4.9	-6.2	-2.0	-6.3	-13.5
West Africa	Benin	5.3	4.9	5.6	4.2	3.8
	Burkina Faso	6.0	6.0	2.7	-4.3	4.6
	Cameroon	4.3	3.8	3.0	3.9	4.2
	Cape Verde	1.2	0.9	3.7	5.2	4.2
	Central African Republic	3.1	1.5	3.1	3.3	2.6
	Chad	5.6	3.3	3.2	0.1	0.1
	Congo, Rep.	0.3	6.1	8.2	-1.7	5.0
	Cote d'Ivoire	3.0	2.7	1.3	1.8	3.1
	Equatorial Guinea	6.1	2.1	3.7	10.0	-1.3
	Gabon	1.7	1.6	2.1	5.3	4.8
	Gambia, The	3.3	4.7	1.0	2.0	4.6
	Ghana	2.9	3.3	1.2	0.2	5.4
	Guinea	4.5	3.6	4.2	5.0	3.9
	Guinea-Bissau	3.9	3.9	5.5	7.0	3.2
	Mali	2.9	3.0	5.7	2.4	10.0
	Mauritania	0.8	-2.8	11.7	1.9	3.8
	Niger	3.3	3.2	8.1	4.0	8.6
	Nigeria	3.6	13.7	7.4	7.4	-0.3
	Senegal	1.8	2.5	-7.5	-5.3	12.7
	Sierra Leone	-3.4	8.3	4.3	5.7	5.9
	Togo	3.8	1.6	-3.5	5.8	1.5
	East Africa	3.4	2.3	4.4	3.6	4.8
	Southern Africa	2.9	1.3	3.5	3.0	7.1
	West Africa	3.0	3.7	3.6	3.0	4.3
	SSA	3.1	2.9	3.8	2.9	5.3

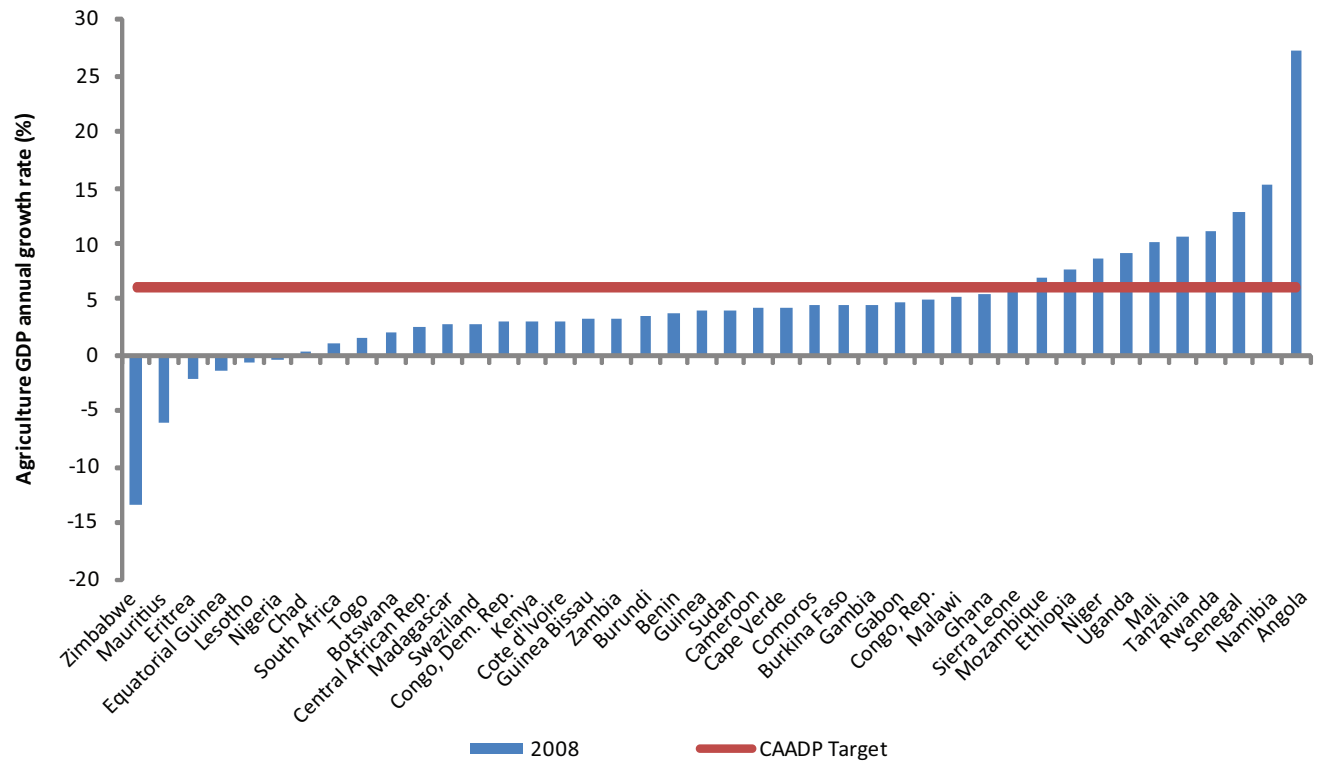
Sources: ReSAKSS calculations based on World Bank 2009; United Nations 2009b.

TABLE 6—ECONOMIC PERFORMANCE, 1990-2009

		Annual GDP Growth (%)					
		1990-1999	2000-2005	2006	2007	2008	2009
East Africa	Burundi	-1.4	1.7	5.1	3.6	4.5	3.2
	Comoros	1.6	2.5	1.2	0.5	1.0	1.0
	Congo, Dem. Rep.	-5.5	2.5	5.6	6.3	6.2	2.7
	Eritrea	8.1	0.0	-1.0	1.3	2.0	0.3
	Ethiopia	2.7	6.5	10.9	11.1	11.3	7.5
	Kenya	2.2	3.1	6.4	7.0	3.6	2.5
	Madagascar	1.6	3.0	5.0	6.2	6.9	-0.4
	Rwanda	2.1	6.7	7.3	7.9	11.2	5.3
	Sudan	4.4	6.4	11.3	10.2	8.3	4.0
	Tanzania	3.1	6.4	6.7	7.1	7.5	5.0
	Uganda	6.9	6.1	10.8	8.6	9.5	7.0
Southern Africa	Angola	1.0	9.3	18.6	20.3	14.8	0.2
	Botswana	6.1	5.7	3.0	4.2	-1.0	-10.3
	Lesotho	3.9	3.1	8.1	5.1	3.9	-1.0
	Malawi	4.1	1.1	8.2	8.6	9.7	5.9
	Mozambique	5.6	7.4	8.7	7.0	6.5	4.3
	Namibia	4.1	4.8	7.1	4.1	2.7	-0.7
	South Africa	1.4	3.9	5.3	5.1	3.1	-2.2
	Swaziland	3.7	3.6	2.9	3.5	2.5	0.4
	Zambia	0.4	4.6	6.2	6.2	6.0	4.5
	Zimbabwe	2.6	-5.8	..	..	..	3.7
West Africa	Benin	4.5	4.2	3.8	4.6	5.1	3.8
	Burkina Faso	5.1	5.4	5.5	3.6	4.5	3.5
	Cameroon	0.4	3.8	3.2	3.5	3.9	1.6
	Cape Verde	5.2	4.5	10.8	6.9	6.0	3.5
	Central African Republic	1.3	-0.4	4.0	4.2	2.8	2.4
	Chad	2.2	12.6	0.2	0.2	-0.4	1.6
	Congo, Rep.	0.8	4.9	6.2	-1.6	5.6	7.4
	Cote d'Ivoire	2.6	-0.6	0.7	1.7	2.2	3.7
	Equatorial Guinea	20.2	26.1	1.3	21.4	11.3	-5.4
	Gabon	2.5	1.1	1.2	5.6	2.1	-1.0
	Gambia, The	3.1	4.5	6.5	6.3	5.9	3.6
	Ghana	4.3	4.8	6.4	6.1	6.2	4.5
	Guinea	4.3	3.0	2.2	1.5	8.4	0.0
	Guinea-Bissau	2.0	-0.8	3.5	0.6	2.7	1.9
	Mali	3.6	5.9	5.3	2.8	5.0	4.1
	Mauritania	2.6	3.7	11.7	1.9	..	2.3
	Niger	1.9	3.3	5.8	3.3	9.5	1.0
	Nigeria	3.1	6.1	6.2	6.4	5.3	2.9
	Senegal	2.7	4.5	2.4	4.7	2.5	1.5
	Sierra Leone	-4.2	12.3	7.3	6.8	5.1	4.0
	Togo	2.6	1.7	3.9	1.9	1.1	2.4
	East Africa	2.2	3.4	7.0	7.2	7.0	3.2
	Southern Africa	2.5	3.8	7.1	7.0	5.7	0.9
	West Africa	3.3	5.3	4.7	4.4	4.7	2.3
	SSA	3.0	4.6	5.7	5.5	5.4	2.2

Source: ReSAKSS calculations based on World Bank 2009.
Note: GDP growth rates for 2009 are estimates from IMF 2009.

FIGURE 17—2008 AFRICAN AGRICULTURE GDP GROWTH RATES AND THE CAADP 6% TARGET



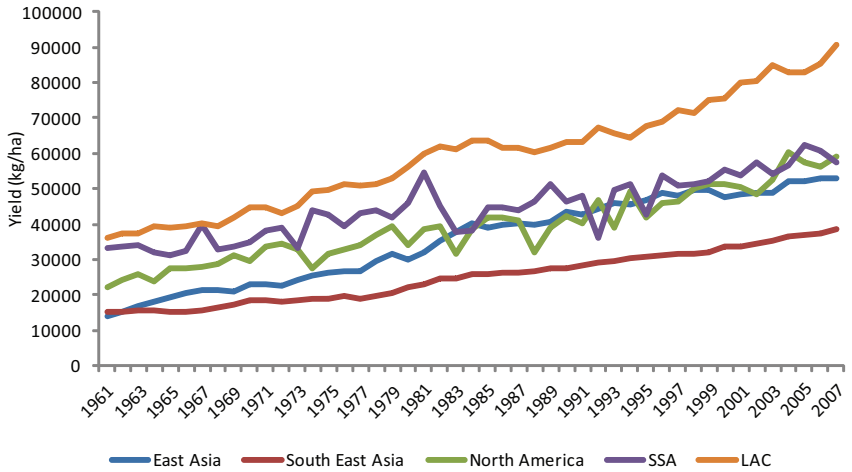
Source: World Bank 2009; United Nations 2009b.
Note: GDP growth rates for 2009 are estimates from IMF World Economic Outlook 2009.

increase with an estimated rate of 7.1 percent. Despite these trends, it is still not possible to know what the impact on agricultural growth rates for 2009 will be from the food crisis of late 2007 and early 2008 and subsequent global recession.

These regional and sub-continental figures mask the diverse agricultural performance that exists across countries in Africa. **Figure 17** shows that in 2008, ten countries met the CAADP 6 percent agricultural growth target: Angola, Ethiopia, Mali, Mozambique, Namibia, Niger, Rwanda, Senegal, Tanzania and Uganda. Nineteen other countries attained moderate agricultural GDP growth rates of between 3 and 6 percent in 2008. In the same year, eight countries experienced low or negative growth in their agriculture sectors.

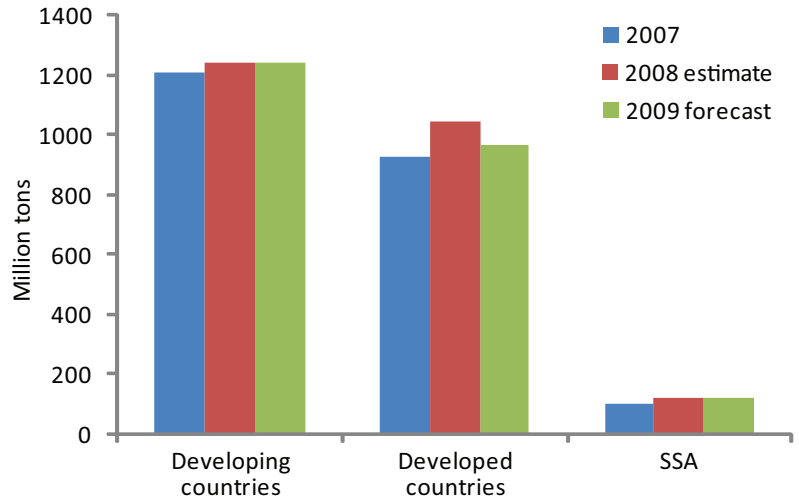
From 2005 to 2008, GDP growth in SSA was generally high at an average rate of 5.4 percent per year. With the exception of 2009, average GDP growth rates have been increasing, from 3.0 percent in the 1990s and 4.6 percent in the first half of the 2000s, to 5.5 percent by 2007 (**Table 6**). However, with the international economic slowdown, growth projections are less optimistic and "low economic growth is likely to have negative second-round effects for investment and productivity, with

FIGURE 18—CEREAL YIELDS OF WORLD REGIONS, 1960-2007



Source: FAO 2009c.

FIGURE 19—CEREAL PRODUCTION IN DEVELOPING AND DEVELOPED COUNTRIES AND SSA, 2007–2009



Source: FAO 2009e.

direct ramifications for food prices and food security" (von Braun 2008b). GDP growth rates declined slightly to 5.4 percent in 2008 and are projected to decline to 2.2 percent in 2009, which would mark the first time GDP has grown that slowly since 1994.

A similar trend is echoed at the regional level. East and Central Africa and Southern Africa both witnessed an increase in their average annual GDP growth rates from the 1990s to the early 2000s, and then from the early 2000s to 2006 and 2007 (**Table 6**). West Africa also experienced an increase in regional average annual GDP growth from the 1990s to the early 2000s, but this increase did not continue into recent years. All regions are predicted to see a drastic decline in GDP growth in 2009 to levels experienced in the 1990s due to the food and financial crises. Southern Africa is expected to witness the most significant decline to a GDP growth rate of 0.9 percent for 2009, down from 5.7 percent in 2008.

| *Agricultural production and productivity*

Future growth in African agriculture will largely depend on the continent's ability to increase agricultural production and productivity. Higher agricultural production on the continent can improve food security and dampen the effects of high international food prices on domestic markets. Due to increasingly limited land resources, however, increasing production is largely dependent on increasing agricultural productivity. Cereal yields in SSA have improved over time, but are still below what is needed to feed a growing population (**Figure 18**). Using a region-wide multi-market model, a recent study at IFPRI projects that doubling the productivity of food staples in Africa by 2015 has the potential to raise average GDP growth to 5.5 percent per annum, lift over 70 million people out of poverty, and turn Africa from a food-deficit region to a surplus region with 20 to 40 percent lower food prices (Diao, Fan, Headey, Johnson, Nin-Pratt and Yu 2008).

The recent food price crisis is a potential opportunity that could promote a supply response in agriculture. Indeed, as a result of higher food prices (Chapter 2), world

cereal output actually increased by 7 percent between 2007 and 2008 (FAO 2009b). This supply response was concentrated mostly in the developed countries, however, and among developing countries, in Brazil, China, and India (FAO 2009e). Yet even in SSA, FAO projections indicate that cereal production increased by 14 percent from 2007 to 2008 (**Figure 19**). Within SSA, this increase was concentrated in Southern and West Africa, with minimal supply response occurring in East and Central Africa (**Figure 20**). However, SSA has such a low level of output compared to other world regions, this increase still does not put it at the same production level as the world's major cereal producers.

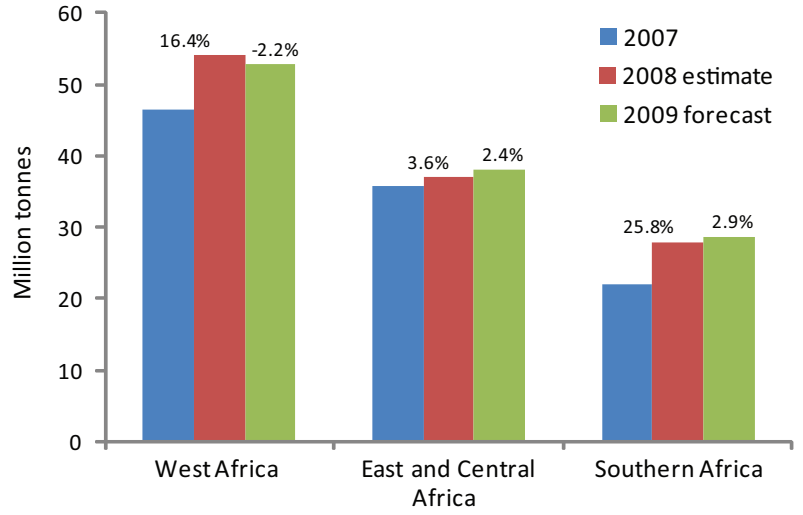
Although global cereal output is projected to decline for 2009 as a result of falling world food prices, SSA cereal output is projected to increase by 0.4 percent (FAO 2009e). This may be due in part to a lag of high food price transmission from the international markets to the domestic markets in many African countries (see Chapter 5). Cereal production is projected to continue increasing, albeit at a slower rate, in Southern and East and Central Africa in 2009. In West Africa, production is predicted to decline in 2009 by approximately 2 percent.

| *Agricultural trade*

Increasing agricultural production and productivity will not instigate growth and poverty reduction if farmers do not also have access to domestic, regional, and international markets for trade. Access to markets is still severely limited in SSA due to high transportation and market transaction costs.

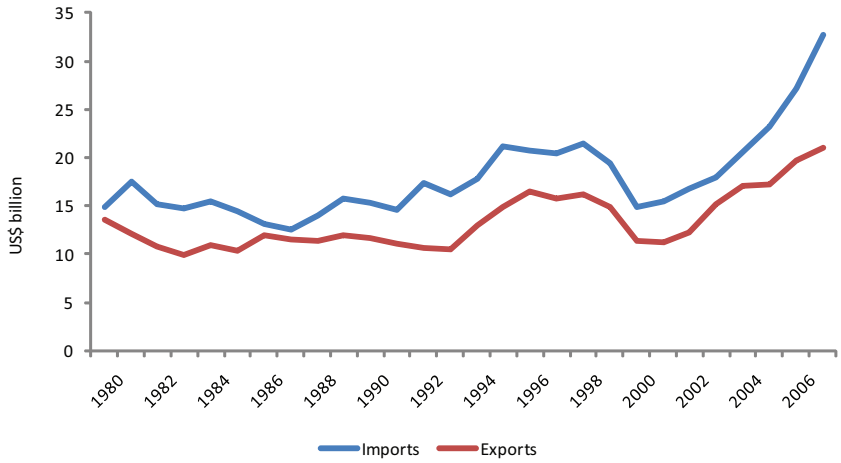
SSA has been a net food importer since the 1980s (**Figure 21**). In 2007, the value of the region's trade deficit started to increase as a result of higher food prices.

FIGURE 20—CEREAL PRODUCTION IN AFRICA REGIONS, 2007–2009



Source: FAO 2009b.

FIGURE 21—AGRICULTURAL IMPORTS AND EXPORTS IN SSA, 1980–2007



Source: FAO 2009c.

| *Conclusion*

Starting in the early 1990s, the continent has witnessed rising agricultural and overall growth rates. However, despite recent increases in agriculture GDP growth rates in the different regions of Africa and the high diversity of Africa's agro-ecological conditions for a wide range of agricultural production, only one of the three regions covered in this report (Southern Africa) has achieved the 6 percent agricultural growth target set by CAADP.

Generating higher agricultural growth, particularly in the smallholder sector, would increase rural incomes and food supplies and stimulate broad-based economic growth through linkages with the non-agricultural sector. Agricultural growth, accompanied by growth in non-agriculture, can have a high impact on poverty reduction. There is a critical need to accelerate agricultural productivity if African agriculture is going to continue performing the way it has in recent years.

With respect to agricultural trade, SSA has been a net food importer for decades. The widening food supply-demand gap and rising food import bills have caused serious setbacks, especially in domestic food production, foreign exchange earnings, and in labor force required in agriculture. It has also eroded the competitiveness of domestically produced agricultural goods in comparison with low-priced imported goods, leading to reduction in agricultural activities in the continent.

Nevertheless, recent years have witnessed dramatic attention on African agriculture because of its immediate and long-term implications for Africa's development. Since the majority of Africans are living in rural areas and engage in subsistence agriculture, which will long remain the main source of their livelihoods, it is pertinent that a renewed interest in agriculture should be the main vehicle of reducing poverty in the continent. Therefore, as many African governments strengthen the focus and implementation of the CAADP strategy through their current CAADP compacts, the strategy for connecting agriculture to poverty reduction needs to be better articulated and operationalized.

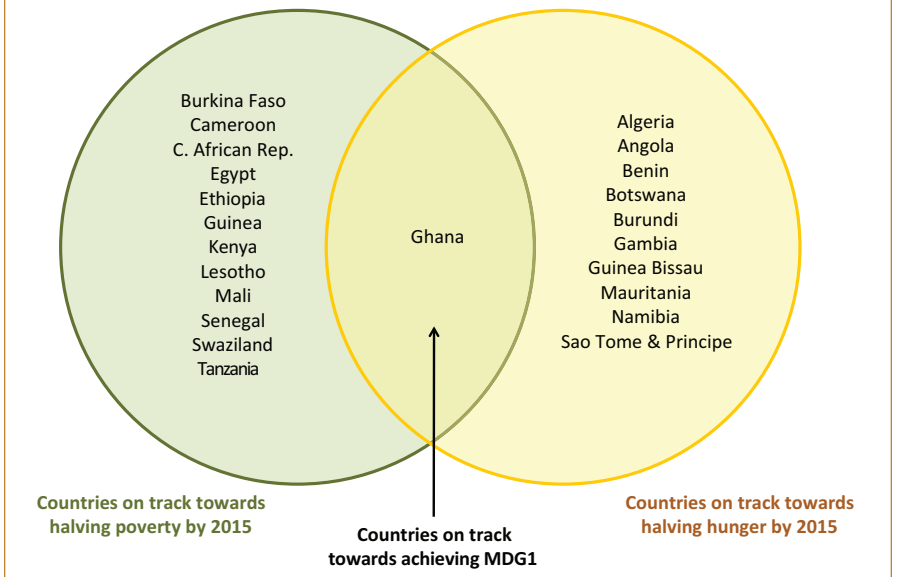
4. Progress toward meeting MDG1 in Africa

The continent as a whole is not on track toward achieving the first MDG of halving hunger and poverty by 2015. According to ReSAKSS estimates, which project current hunger and poverty rates based on a "business as usual" scenario, the current child malnutrition rate stands at 29.3 percent for Sub-Saharan Africa (**Table 7**).[8] This rate is an increase from the last measured rate of 27.0 percent in 2008, and is likely to be an overly optimistic estimate since it does not take into account the crises of the past year. According to the United Nations (UN), the decline in hunger in Sub-Saharan Africa since 1990 reversed in 2008, largely due to the increase in food prices (UN 2009a).

Likewise, ReSAKSS estimates of poverty indicate that the continent as a whole is not on track toward halving poverty by 2015 (**Table 8**). The continent's estimated poverty rate for 2009 stands at 38.6 percent, which is 9 percentage points above where the continent should be in 2009 to be on track toward meeting the 2015 target. Since this figure is based on a "business as usual" scenario, it does not allow for the effects of sudden shocks, such as the global economic crisis, which has likely increased poverty drastically. According to the UN, the number of people living in extreme poverty worldwide in 2009 is expected to be 55 million to 90 million more than anticipated before the current economic crisis, a large share of whom—approximately 16 million— are in SSA (UN 2009a).

This SSA continental picture masks the varied performance by regions and countries toward meeting the MDG1 targets. **Figure 22** indicates that several countries are on track to achieve either the hunger or the poverty target of MDG1,

FIGURE 22—COUNTRIES ON TRACK TOWARD MEETING MDG1 BASED ON "BUSINESS AS USUAL" PROJECTIONS



Source: ReSAKSS based on World Bank 2009, UN 2009a.

[8] ReSAKSS estimates for poverty rates are calculated using data from World Bank 2009 and the United Nations 2009a. ReSAKSS calculates the average annual rate of change between years for which data is available and uses this rate to project what the current rate would be assuming this rate of change stayed the same. This projection is referred to as a "business as usual" scenario.

TABLE 7—CHILD MALNUTRITION RATES (WEIGHT FOR AGE) AND 2009 MDG1 BENCHMARKS

	Year	Most recent malnutrition rates	ReSAKSS estimated rate for 2009	2009 Benchmark	On track to halve hunger by 2015?
Algeria	2006	3.7	.5	5.8	yes
Angola	2001	30.5	20.1	27.8	yes
Benin	2006	22.6	202.6	20.6	yes
Botswana	2000	12.5	2.2	14.9	yes
Burkina Faso	2006	37.4	38.5	19.6	no
Burundi	2005	39.2	34.5	35.3	yes
Central African Republic	2006	28.5	38.2	16.6	no
Cameroon	2004	19.3	20.4	8.2	no
Chad	2004	36.7	35.2	25.4	no
Comoros	2004	24.9	27.4	11.2	no
Congo, D.R.	2007	31.4	30.9	22.1	no
Congo, R.	2005	14.4	14.7	8.2	no
Cote d'Ivoire	2006	20.2	19.3	15.5	no
Djibouti	2006	28.9	30.0	14.2	no
Egypt	2008	7.5	7.4	6.4	no
Eritrea	2002	39.6	38.5	25.7	no
Ethiopia	2005	38.4	35.6	30.4	no
Gambia, The	2006	20.3	18.5	18.5	yes
Ghana	2008	13.9	13.0	18.7	yes
Guinea	2005	25.8	27.5	12.0	no
Guinea Bissau	2006	19.4	16.0	21.3	yes
Kenya	2003	19.9	18.5	14.3	no
Lesotho	2005	16.6	17.9	9.7	no
Liberia	2007	23.8	23.2	18.2	no
Madagascar	2004	41.9	43.1	24.0	no
Malawi	2006	20.5	19.1	17.5	no
Mali	2006	31.7	29.2	27.9	no
Mauritania	2007	29.8	27.6	30.2	yes
Morocco	2004	10.2	10.7	5.5	no
Mozambique	2003	23.7	21.2	18.0	no
Namibia	2007	17.5	16.3	17.0	yes
Niger	2006	44.4	44.8	26.3	no
Nigeria	2003	28.7	25.5	22.1	no
Rwanda	2005	22.5	20.4	18.7	no
Sao Tome and Principe	2006	9.2	7.4	11.8	yes
Senegal	2005	17.3	16.0	13.8	no
Sierra Leone	2005	30.4	33.0	12.9	no
Somalia	2006	35.6	41.5	2.7	no
South Africa	2003	11.5	13.3	4.8	no
Sudan	2006	31.0	30.2	21.8	no
Tanzania	2005	21.8	19.6	18.5	no
Togo	2006	26.0	28.1	9.2	no
Uganda	2006	20.4	19.0	17.2	no
Zambia	2007	19.3	18.7	15.3	no
Zimbabwe	2006	14.0	17.0	9.4	no
SSA	2008	27.0	29.3	19.9	no

Source: World Bank 2009, UN 2009a.
Note: Current rates are ReSAKSS forecasts based on "business as usual".

TABLE 8—POVERTY RATES BY COUNTRY AND 2009 MDG1 BENCHMARKS

	Year	Most recent poverty rates	ReSAKSS estimated rate for 2009	2009 MDG Benchmark	On track to halve hunger by 2015?
Algeria			..	4.2	..
Angola	2000	54.3	..	..	..
Benin	2003	47.3	35.3	14.5	no
Botswana			..	19.3	..
Burkina Faso	2003	56.5	46.7	48.2	yes
Burundi	2006	81.3	80.7	52.5	no
Cameroon	2001	32.8	2.9	45.8	yes
Cape Verde	2001	20.6	..	..	..
Central African Republic	2003	62.4	50.2	55.1	yes
Chad	2003	61.9	..	..	yes
Comoros	2004	46.1	..	..	..
Congo, Dem. Rep.	2006	59.2	..	..	..
Congo, Rep.	2005	54.1	..	..	..
Cote d'Ivoire	1998	24.1	27.6	9.9	no
Djibouti	2002	18.8	35.1	3.0	no
Egypt, Arab Rep.	2000	2.0	1.8	1.8	yes
Ethiopia	2005	39.0	30.4	44.2	yes
Gabon	2005	4.8	..	..	..
Gambia, The*	2003	61.3	59.8	40.0	no
Ghana	2006	30.0	25.5	33.6	yes
Guinea	2003	70.1	58.9	58.6	yes
Guinea-Bissau	2002	48.8	53.6	25.2	no
Kenya	1997	19.6	13.9	25.6	yes
Lesotho	2003	43.4	35.6	37.4	yes
Liberia	2007	84.0	..	..	..
Madagascar	2001	76.3	66.2	45.7	no
Malawi	2004	73.9	66.2	59.1	no
Mali	2006	51.4	42.7	60.6	yes
Mauritania	2000	21.2	38.0	32.3	no
Morocco	2001	6.2	2.5	1.5	no
Mozambique	2003	74.7	68.1	55.2	no
Niger	2005	65.9	63.8	45.8	no
Nigeria	2004	64.4	93.7	27.9	no
Rwanda*	2000	60.3	72.0	29.3	no
Senegal	2001	44.2	25.3	27.2	yes
Sierra Leone	2003	53.4	49.1	38.9	no
South Africa	2001	10.7	28.6	14.6	no
Swaziland	2001	62.8	41.7	56.9	yes
Tanzania*	2001	35.7	33.4	42.5	yes
Togo	2006	38.7	..	..	..
Tunisia	2000	2.6	8.2	3.7	no
Uganda	1999	60.5	45.8	45.2	no
Zambia	1996	62.1	64.9	38.9	no
Zimbabwe*	1996	34.9	58.6	14.9	no
SSA	2004	41.1	38.6	29.0	no

Source: World Bank 2009.
Note: 2009 poverty rates are ReSAKSS projections based on "business as usual" scenarios. 2009 benchmark rates are the rate the country would have to be at in 2009 in order to be on track to halving their poverty rate by 2015. Poverty rates refer to the international "$1/day" line (now measured at $1.25/day) unless otherwise indicated (marked with asterisk). In cases where international poverty rates were unavailable, national poverty rates were used instead.

with thirteen on track to halve poverty by 2015 and eleven on track to meet the hunger goal. However, only one country – Ghana – is on track to halving both components of MDG1.

| *Increasing agricultural growth for poverty reduction*

ReSAKSS helped to facilitate a number of country studies in Africa which provide evidence in support of the argument that increasing agricultural growth to achieve the CAADP 6 percent agricultural growth target can have significant beneficial effects on poverty, food security, and overall economic growth, even for countries already on track to meet the first MDG of halving poverty by 2015.

Table 9 briefly displays the results of the ReSAKSS country studies. Most countries will need to increase agricultural growth beyond 6 percent in order to halve poverty by 2015. The annual growth rate of agricultural expenditures required to merely achieve a 6 percent annual agricultural growth rate is quite significant. Therefore, most of these countries will need to dramatically increase their investment allocations to agriculture if they plan to achieve the CAADP growth rate or MDG goals. The studies also find that focusing on staple crops, especially cereals, and some export crops, can have a much higher effect on both growth and poverty reduction.

▷ MALAWI, RWANDA, AND ZAMBIA

Three countries in the Common Market for Eastern and Southern Africa (COMESA) region —Malawi, Rwanda and Zambia—serve as good examples of the significant benefits that achieving the CAADP target agricultural growth rate can bring even when these do not translate into poverty reduction in line with MDG1.

For example, achieving the 6 percent target will substantially reduce the number of people living below the poverty line by 2015. In Zambia, national poverty would fall from 68 to 52 percent by 2015, while in Malawi it would fall from 47 to 35 percent. Even more impressive poverty reduction would occur in

TABLE 9—RESULTS OF CAADP AND MDG SCENARIOS

Country	On track to halve poverty by 2015?	Will CAADP 6% Ag growth put country on track to halve poverty by 2015?	Annual agricultural growth rate required to halve poverty by 2015	Annual growth rate of public agricultural spending to achieve CAADP 6% agriculture growth	
				Optimistic estimate	Conservative estimate
Rwanda	No	No	9.0%	15.2%	30.3%
Mozambique	No	Yes	6.0%		
Malawi	No	No	6.9%	19.3%	26.3%
Zambia	No	No	9.2%	7.2%	26.5%
Uganda	Yes	N/A but will lead to higher poverty reduction and reverse trend of increasing absolute number of people in poverty.	Current average is 2.7%	25.3%	30.0%
Ghana	Yes	N/A but will put Ghana on track to middle-income country status.	Current average is 4.2%		

Sources: Benin, Thurlow, Diao, Kalinda and Kalinda 2008; Benin, Thurlow, Diao, Kebba and Owfono 2008; Benin, Thurlow, Diao, McCool and Simtowe 2008; Breisinger et al. 2008; Diao, Fan, Kanyarukiga and Yu 2008.

Rwanda—from 59 percent to 42 percent in 2015. This is feasible if the countries realize reasonably ambitious improvements in crop yields and subsector growth.

This is true even though all three countries will fall short of achieving the MDG1 target of halving poverty by 2015 and will actually witness an increase in the absolute number of poor people. In all three cases, the 6 percent agricultural growth target is also insufficient to elicit the scale of poverty reduction necessary to meet MDG1. To do so, the sector would need to grow by approximately 9 percent per year in Rwanda and Zambia and by 6.9 percent per year in Malawi.

▷ MOZAMBIQUE

Like Rwanda, Malawi, and Zambia, Mozambique's current growth path does not put it on track to achieve MDG1. However, achieving the CAADP 6 percent agricultural growth rate target will allow Mozambique to reach the MDG1 goal of halving poverty by 2015. Reaching this target is feasible as Mozambique already has strong agricultural performance and therefore will require less additional growth in crop production. In fact, with the right investments, Mozambique could surpass the CAADP target and reach an average agricultural growth rate of 6.6 percent during 2006–2015. This would increase overall GDP growth from 6.3 to 7.0 percent per year, reduce national poverty to 32.6 percent by 2015, and lift an additional 1 million people above the poverty line by 2015. Under the CAADP scenario, Mozambique would meet MDG1 sometime in 2014.

▷ GHANA AND UGANDA

Ghana is already on track to achieving MDG1, even though it is not currently achieving the CAADP target of 6 percent annual agricultural growth. Achieving an accelerated agricultural growth of 6 percent per year would have a significant impact on poverty reduction in Ghana and Uganda. In Uganda, the poverty rate will be halved sometime before 2015; however, due to an increasing population, there will actually be a larger absolute number of people in poverty. Accelerating agricultural growth would reverse this trend and lift an additional 2.9 million Ugandans above the poverty line. In Ghana, 6 percent agricultural growth would put the country on track to becoming a middle-income country by 2015 and would also reduce the number of people in poverty. Therefore, even for countries set to meet MDG1, CAADP can further facilitate income growth and poverty reduction.

| *What impact will the recent food crisis have on poverty and hunger reduction?*

Based on recent performance in the agricultural sector and resource commitments, it is clear that progress has been made. However, has it been enough to enable countries to move closer to the CAADP targets and MDG1, especially in the current international economic context?

The recent food price crisis may have set back earlier progress toward poverty and hunger reduction in SSA. High and volatile food prices threaten the nutrition and food security of the poor because they erode their already limited purchasing power (von Braun 2008a). The proportion of undernourished people in Sub-Saharan Africa increased by 1 percent in 2007 due to the increased food prices. This is a change from the periods of 1995-97 and 2003-05 in which the proportion of undernourished people decreased by 4 percent and only marginally increased, respectively (FAO 2008b). Most farmers in Africa are net buyers of food who, in the face of such high food prices, must shift their spending away from education and healthcare, or even sanitation and heating, toward food, which they must consume at a lower quality and quantity. In other countries, the poor have had to make major shifts in their livelihood strategies. For example, in Mauritania, goat herders have been forced to sell their livestock for money to buy food, resulting in both a livestock glut in the market (and thus unusually low prices) and also an erosion in families' livelihoods, as their main source of sustenance is gone (Faiola 2008).

The financial crisis may have exacerbated this situation for many poor people by shrinking employment and lowering real wages. This further reduces the amount of income available to spend on food, resulting in worsening malnutrition. At the same time, funding for social protection and food aid programs, which protect many of the most vulnerable from slipping into starvation, are limited due

to the global credit crisis. Furthermore, the coping strategies employed by the poor in Africa may have increased their vulnerability, as many had to sell off what little productive assets they owned.

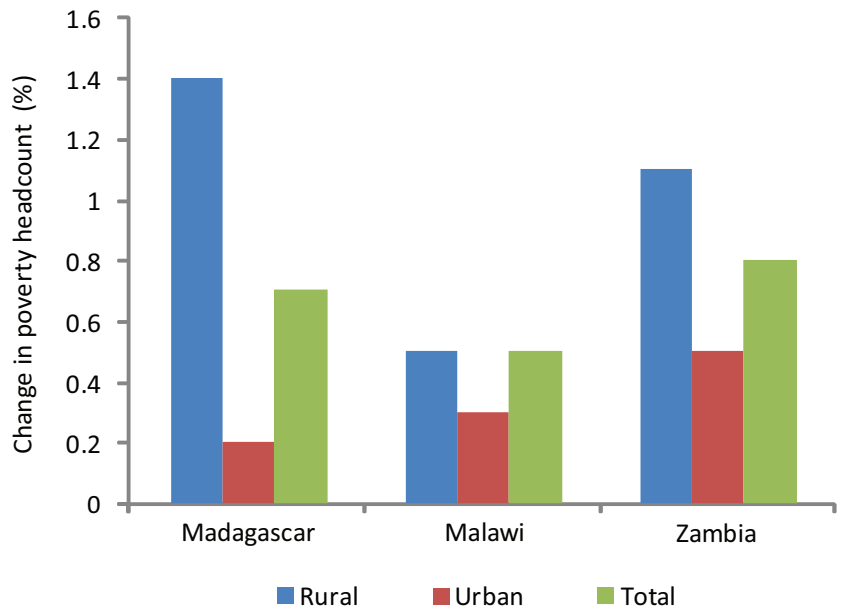
In 2008, a range of scientific studies attempted to assess the impacts of rising food prices on household poverty, including Ivanic and Martin's (2008) nine-country study, Zezza et al.'s (2008) 11-country study, Wodon et al.'s (2008) study of 12 West African countries, and Dessus et al.'s (2008) study of the urban sector of 73 developing countries. Because none of these experiments incorporated actual price changes, their simulations tell us who would be vulnerable to rising prices, but not which populations are actually experiencing hardship as a result of rising food prices. This is an important caveat because as we saw above, food price inflation varied greatly across countries.

Figure 23 shows the results from Ivanic and Martin (2008) depicting the impact on rural and urban poverty of a food inflation rate of 10 percent. The authors found that under this scenario, rural poverty increases by three times as much as urban poverty in Zambia, almost twice as much in Malawi, and about seven times as much in Madagascar.

One quite worrying finding to come out of this research is that a surprising number of African households seem to be net consumers of food, despite the fact that they are residing in rural areas and presumably involved in agriculture. Since poor households often produce food as well as consume it, the impact on household welfare of food inflation depends upon whether a household is a net food consumer or a net food producer. Rising food prices will hit net-consuming households adversely, although the size of the impact will vary according to the degree to which they are net consumers of food. The results from the studies listed above imply that many agricultural producers in Africa's rural areas are producing too little, or have too low productivity, to have enough surplus to sell.

Clearly, a range of factors influences the vulnerability of households to rising food prices within and across countries. Zezza et al. (2008) go further than the other simulation studies by disaggregating vulnerability across groups. Across 13 developing countries around the developing world, the authors find that the most vulnerable households have the following characteristics: they are urban or

FIGURE 23—INCREASE IN $/DAY POVERTY HEAD COUNT AFTER A 10 PERCENT INCREASE IN FOOD PRICES, BY REGION



Source: Ivanic and Martin 2008.

rural non-farm; larger and less educated; more dependent on female labor; less well served by infrastructure; and, within the rural sector, have limited access to land and modern agricultural inputs. They also find that reductions in welfare are highest among the poorest households, a result driven by the higher food shares in the budgets of poor households and their low levels of food production.

To summarize, these studies suggest that poverty (including rural poverty) will generally increase in the short-run if food prices rise substantially, and Zezza et al.'s (2008) study also offers insights into which types of households are most vulnerable to rising food prices. At the same time, it is important to remember the limitations of these simulations. Actual food inflation rates clearly vary substantially across countries and fuel inflation can also have a large impact on household welfare. This occurs not least because fuel inflation has large adverse multiplier effects on a number of sectors in the economy, including the food sector (Arndt et al. 2008). We also need to learn more about the effects that the food crisis of 2008 have had on malnutrition, especially since even relatively short increases in malnutrition can have long-lasting effects on childhood health and education outcomes.

5. Conclusion and policy recommendations

This report has summarized the trends in Africa's agriculture sector over the recent past and suggests that overall progress has been made in most areas. However, the setbacks from the food price crisis followed immediately by the financial crisis are still not completely clear, due to a slow transmission of these effects into domestic markets and varied responses.

There has been growing momentum toward putting agriculture firmly on the agenda of governments and donors alike. The increased attention to agriculture's role in development and the critical need to increase financial and technical support to agriculture has meant an increase in government and donor commitments to the sector. This report has shown that these pledges have yet to translate into increased spending in the majority of African countries. Only eight countries have met the CAADP 10 percent budgetary allocation to agriculture. Governments and donors will not only need to increase their financial commitments to agriculture in general terms, but also need to carefully select policy, growth, and investment options that will reduce poverty and catalyze overall economic growth. In addition, countries will have to focus on the efficiency and quality of investments in order to ensure that allocated funds are being used effectively and targeted to areas with the highest returns, such as rural infrastructure, agriculture research and development (R&D), and irrigation.

Agricultural policies and programs must now take into consideration the complex combinations of factors such as more volatile food markets and prices, market distortions, and climate change. To do so, a two-level approach is recommended that focuses on (1) short-term coping strategies that protect the poor without distorting the domestic food economy and (2) long-term "resilience" measures that allow farmers to take advantage of production incentives while also stabilizing the economy to prevent vulnerability to future crises and price variability.[9] Donors can assist by "helping African countries meet the higher foreign exchange and budgetary resource requirements, while avoiding distortionary interventions in the sector" (Badiane 2008, 4).

It is important to emphasize the significance of continued and increased investments in the agricultural sector in order to avoid a more severe future food crisis. In the new international economic environment, if agricultural investments taper off due to shrinking available credit, food production will contract even further, which could lead to future food price spikes (von Braun 2008a). However, this time, because poor people are making lower wages (due to the reduced production that accompanies a recession) the effects will be more severe. If, however, agricultural investments are maintained during the recession, African countries can avoid many of the negative effects of slower growth.

[9] See for instance, Badiane 2008; Minde, Chilonda, and Sally 2008; von Braun 2008a; and von Braun, Ahmed, et al. 2008.

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