ReSAKSS

Annual Trends and Outlook Report 2010

ReSAKSS Africa Wide

Regional Strategic Analysis and Knowledge Support System

FACILITATED BY IFPRI | A PROGRAM IN SUPPORT OF CAADP IMPLEMENTATION

Monitoring African Agricultural Development Processes and Performance

A comparative analysis

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The Regional Strategic Analysis and Knowledge Support System (ReSAKSS) is an Africa-wide network of regional nodes supporting implementation of the Comprehensive Africa Agriculture Development Programme (CAADP). ReSAKSS offers high-quality analyses and knowledge products to improve policymaking, track progress, document success, and derive lessons for the implementation of the CAADP agenda and other agricultural and rural development policies and programs in Africa.

ReSAKSS is facilitated by the International Food Policy Research Institute (IFPRI) in partnership with the Africa-based centers of the Consultative Group on International Agricultural Research (CGIAR), the NEPAD Planning and Coordinating Agency (NPCA), the African Union Commission (AUC), and the Regional Economic Communities (RECs). The Africa-based CGIAR centers and the RECs include: International Institute of Tropical Agriculture (IITA) and the Economic Community of West African States (ECOWAS) for ReSAKSS–WA; the International Livestock Research Institute (ILRI) and the Common Market for Eastern and Southern Africa (COMESA) for ReSAKSS–ECA; and the International Water Management Institute (IWMI) and the Southern African Development Community (SADC) for ReSAKSS–SA.

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Abbreviations

AgGDP	Agriculture GDP
AgODA	Overseas Development Assistance for Agriculture
APRM	African Peer Review Mechanism
AUC	African Union Commission
AU/NEPAD	African Union/ New Partnership for Africa's Development
CAADP	Comprehensive Africa Agriculture Development Programme
CAADP PP	CAADP Partnership Platform
CEC	Commission of the European Communities
CEN-SAD	Community of Sahel-Saharan States
CGIAR	Consultative Group on International Agricultural Research
COFOG	Classification of the Functions of Government
COMESA	Common Market for Eastern and Southern Africa
DPs	Development Partners
EAC	East African Community
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GHI	Global Hunger Index
IFPRI	International Food Policy Research Institute
IGAD	Intergovernmental Authority for Development
IITA	International Institute of Tropical Agriculture
ILRI	International Livestock Research Institute
IMF	International Monetary Fund
IMWI	International Water Management Institute
MAF	Mutual Accountability Framework
M& E	Monitoring and Evaluation
MDG	Millennium Development Goal
NSA	Non State Actor
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
PSTA-EDPRS	Strategic Plan for Agricultural Transformation of the Economic Development and Poverty Reduction Strategy
REC	Regional Economic Community
ReSAKSS	Regional Strategic Analysis and Knowledge Support System
SADC	Southern African Development Community
SAKSS	Strategic Analysis and Knowledge Support System
SSA	Sub-Saharan Africa
UMA	Union du Maghreb Arabe
WDI	World Development Indicators
GAFSP	Global Agriculture and Food Security Program
MI	Middle income
LI	Low income
NAIP	National Agricultural Investment Plan
PRSP	Poverty Reduction Strategy Paper

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Introduction

In July 2003, African leaders declared their commitment to an agriculture-led development approach via the Comprehensive Africa Agriculture Development Programme (CAADP). Since then, both state and non-state actors and stakeholders at all levels (continental, regional, and national) have continuously sought information on the progress of the design and implementation of agricultural policies and strategies, both for Africa in general and for CAADP in particular (AU/NEPAD 2003). Are all CAADP actors and stakeholders making good on their commitments? Are we on track to achieve growth, spending, and poverty-reduction targets? What have we achieved so far? What factors have shaped the level of impact that has been achieved? Could we do better with the same level of resources? How? This report, as an outcome of the annual monitoring exercise of the Regional Strategic and Knowledge Support System (ReSAKSS) at the Africa-wide level, addresses these questions from the continental perspective via a comparative assessment of performance in key indicators prior to and after 2003—the year CAADP was initiated.[1]

This report is primarily for mutual review at the continental level, the process that culminates in the annual CAADP Partnership Platform meeting (CAADP PP) that brings together representatives of the leading Regional Economic Communities (RECs) as well as other regional organizations dealing with agriculture, major bilateral and multilateral development agencies, and private-sector and farmers' organizations to review overall progress in the implementation of CAADP at the Africa-wide level. However, the information and analysis are presented for regional aggregates in a manner that can also contribute to peer review at the regional level. Detailed data on country level trends are provided in the annexes and may be useful for those interested in the performance of a specific country relative to the performance of its respective region in the aggregate, or relative to Africa as a whole.

The report is an outcome of the overarching CAADP monitoring and evaluation (M&E) system (see Benin et al. 2010). Readers can find detailed progress related to specific components of CAADP in other publications,

[1] The outcomes of annual monitoring exercises of ReSAKSS at the regional level are reflected in three regional reports associated with three regional economic communities (RECs): Economic Community of West African States (ECOWAS); Common Markets for Eastern and Southern Africa (COMESA); and Southern Africa Development Community (SADC).

such as the individual CAADP pillar M&E systems[2], the African Peer Review Mechanism[3] (APRM), and the Mutual Accountability Framework[4] (MAF). The discussion of individual pillar systems, for example, focuses on assessing performance toward achieving pillar-specific targets without necessarily considering how the pillars interact with each other, through complementary or substitution effects, to affect achievement of the overall CAADP goals and objectives.[5] The APRM focuses on assessing African states' compliance with a wide range of African and international human rights treaties and standards. The MAF focuses on the commitments between donors and governments.

The rest of the document is organized as follows. The remainder of this introductory chapter presents the data and methods used in the analysis. Chapters 2 through 6 present trends in the CAADP core indicators. Chapter 2 discusses the enabling environment to analyze the context within which the CAADP process and related policies, investments, and outcomes have been taking place. Chapter 3 presents progress in CAADP implementation process, particularly the stages of regions and countries in the roundtable process. Chapter 4 deals with the commitments and financing of the agricultural sector, while Chapter 5 looks at agricultural sector performance including productivity, growth, and trade. Chapter 6 rounds off the trend analysis with a look at the progress that has been made in achieving the first Millennium Development Goal (MDG1) of halving poverty and hunger. Chapter 7 concludes with a summary and an outlook of the analyses to be done for the 2011 report and beyond.

Data and methodology

The data used in this report are drawn from several sources, including: the International Monetary Fund's Government Finance Statistics; the Organization for Economic Cooperation and Development (OECD) Creditor Reporting System (CRS); the United Nation's Food and Agriculture Organization database (FAOSTAT); the United Nations Millennium Development Goals (MDG) statistics; and the World Bank World Development Indicators (WDI). These data are supplemented by more recent data compiled by the ReSAKSS network from various national sources, including Ministries of Finance and Economic Affairs and National Statistics Bureaus. The supplementary data were collected on an ad hoc basis. The process of data collection, as well as the quality of data collected, is expected to improve significantly as the CAADP National SAKSS nodes are established to provide strategic knowledge products to facilitate better monitoring and evaluation of the agricultural sector.

To support progress reviews at the continental, regional, and national levels as well as learning across countries and regions, the data and analyses are presented at different levels and compositions of aggregations of countries. First, country-level data are aggregated for the entire

[2] See http://www.nepad-caadp.net/library.php to access documents on the pillar M&E systems.

[3] See http://aprm.krazyboyz.co.za/ for more information about the APRM.

[4] See AU/NEPAD (2010a) for more information about the MAF.

[5] The four CAADP pillars are: extending the area under sustainable land management and reliable water control systems (Pillar 1); improving rural infrastructure and trade-related capacity for market access (Pillar 2); increasing food supplies and reducing hunger (Pillar 3); and agricultural research and technology dissemination and adoption (Pillar 4).

continent (Africa), Sub-Saharan Africa (SSA), and the five geographic regions of the African Union (central, eastern, northern, southern, and western—see Table 1). Aggregation based on Regional Economic Community (REC—see Table 2) is not used as the primary unit of analysis because it is neither mutually exclusive nor exhaustive of the countries on the continent. Since the country CAADP processes are facilitated by the RECs, however, some of the main indicators are also presented according to the REC groupings.

The other type of aggregation used in the analysis derives from the concept that different countries, depending on their resource endowments and stage of development, are on different trajectories to achieving their development objectives (Diao et al. 2007). Country-level data are aggregated into a four-category economic development typology based on three factors: agricultural potential, alternative (or nonagricultural) sources of growth, and income level.

First, each country is assigned a stage of development based on per-capita income level, adopted from the World Bank's income group classification (World Bank 2010); the 53 African countries are separated into *low-income* and *middle-income* status, comprising 55 and 45 percent of the countries, respectively. Low-income countries are further distinguished by degree of *agricultural favorability*, based on its mix of farming systems as defined by Dixon, Gulliver, and Gibbon (2001)—such as irrigated, pastoral, or forest-based (see Figure 1). Agricultural favorability is derived from an index of the proportion of each farming system in the total land area. Each farming system is assigned a numeric value between one and ten based on its level of agricultural potential, with higher values associated with higher potential. For each country, the proportion of each farming system is then multiplied by that system's agricultural potential value and the results summed to derive a single indexed value of agricultural favorability on a scale of one to ten. A threshold index—four—divides those countries with more *favorable agricultural conditions* from those with l*ess favorable agricultural conditions*.

TABLE 1—GEOGRAPHIC REGIONS AND COUNTRIES

Central	Eastern	Northern	Southern	Western
Burundi	Comoros	Algeria	Angola	Benin
Cameroon	Djibouti	Egypt	Botswana	Burkina Faso
Central African Rep.	Eritrea	Libya	Lesotho	Cape Verde
Chad	Ethiopia	Mauritania	Malawi	Cote d'Ivoire
Congo, Dem. Rep.	Kenya	Morocco	Mozambique	Gambia, The
Congo, Rep. of	Madagascar	Tunisia	Namibia	Ghana
Equatorial Guinea	Mauritius		South Africa	Guinea
Gabon	Rwanda		Swaziland	Guinea Bissau
Sao Tome & Principe	Seychelles		Zambia	Liberia
	Somalia		Zimbabwe	Mali
	Sudan			Niger
	Tanzania			Nigeria
	Uganda			Senegal
				Sierra Leone
				Togo

Source: AU 2011.

Then, countries having more favorable agricultural conditions are further subdivided to capture the presence of other, more dominant sectors in the economy competing for productive resources. Specifically, the abundance of mineral resource endowments is used to classify countries as either *mineral rich* or *non-mineral rich* (see Diao et al. 2007 for details).

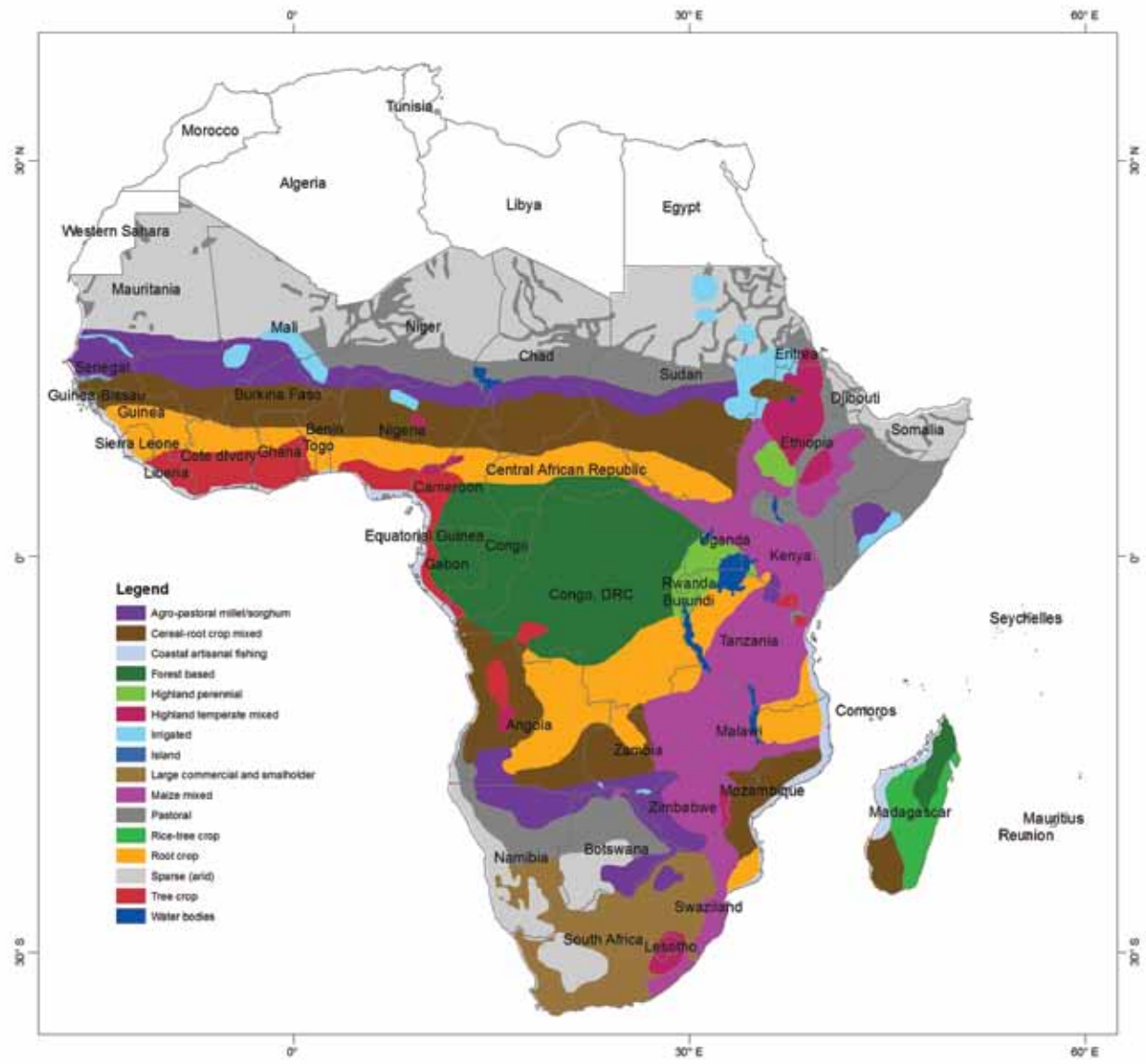
This method results in four non-overlapping economic categories of countries with similar agricultural and economic conditions (Table 3). This system of classification allows for a more revealing cross-regional

TABLE 2—REGIONAL ECONOMIC COMMUNITIES (RECS) AND MEMBER STATES

CEN-SAD	COMESA	EAC	ECCAS	ECOWAS	IGAD	SADC	UMA
Benin	Burundi	Burundi	Angola	Benin	Eritrea	Angola	Algeria
Burkina Faso	Comoros	Kenya	Burundi	Burkina Faso	Ethiopia	Botswana	Morocco
Central African Rep.	Congo, Dem. Rep.	Rwanda	Cameroon	Cape Verde	Djibouti	Congo, Dem. Rep.	Libya
Chad	Djibouti	Tanzania	Central African Rep.	Cote d'Ivoire	Somalia	Lesotho	Tunisia
Comoros	Egypt	Uganda	Chad	Gambia, The	Sudan	Madagascar	Mauritania
Cote d'Ivoire	Eritrea		Congo, Dem. Rep.	Ghana	Kenya	Malawi	
Djibouti	Ethiopia		Equatorial Guinea	Guinea	Uganda	Mauritius	
Egypt	Kenya		Gabon	Guinea Bissau		Mozambique	
Gambia, The	Libya		Congo, Rep.	Liberia		Namibia	
Ghana	Madagascar		Rwanda	Mali		Seychelles	
Guinea	Malawi		Sao Tome & Principe	Niger		South Africa	
Guinea-Bissau	Mauritius			Nigeria		Swaziland	
Kenya	Rwanda			Senegal		Tanzania	
Liberia	Seychelles			Sierra Leone		Zambia	
Libya	Sudan			Togo		Zimbabwe	
Mali	Swaziland						
Mauritania	Uganda						
Morocco	Zambia						
Niger	Zimbabwe						
Nigeria							
Sao Tome & Principe							
Senegal							
Sierra Leone							
Somalia							
Sudan							
Togo							
Tunisia							

Sources: AU 2011; CEN-SAD 2011; COMESA 2010; EAC 2011; ECOWAS 2010; IGAD 2011; NEPAD 2010b; SADC 2010; UMA 2011.
Note: CEN-SAD is the Community of Sahel-Saharan States; COMESA is the Common Market for Eastern and Southern Africa; EAC is the East African Community; ECCAS is the Economic Community of Central African States; ECOWAS is the Economic Community of West African States; IGAD is the Intergovernmental Authority for Development; SADC is the Southern Africa Development Community and UMA is the Union du Maghreb Arabe.

FIGURE 1—FARMING SYSTEMS IN SUB-SAHARAN AFRICA



Source: Authors' map based on Dixon, Gulliver, and Gibbon 2001.

analysis than geographic groupings alone can provide.

The analysis in this report focuses on the aggregated values of the CAADP M&E indicators, highlighting individual countries where it is instructive to do so.[6] In cases where the aggregated value of an indicator could not be obtained using the original data (for example, in cases when the underlying data used to calculate a percentage or growth rate are inaccessible), the value has been estimated using the weighted sum approach, where the weight for each country is the share of that country's value in the total value of the indicator for all countries in the region or group. Indicators such as GDP, agriculture GDP (AgGDP), population, and land area are used to calculate these weights, depending on the indicator of interest. Details for each weighting scheme are given in the technical notes following the tables in the annexes.

In order to assess performance over time as well as progress toward achieving CAADP targets, annual average indicator

[6] Detailed country-level data are presented in annexes.

TABLE 3—ECONOMIC DEVELOPMENT CLASSIFICATION

		Low income (29)	Middle income (24) (MI)
More favorable agricultural conditions (20)	Mineral rich (6) (LI-1)	Central African Republic	Algeria
		Congo, Dem. Rep.	Angola
		Guinea	Botswana
		Liberia	Cameroon
		Sierra Leone	Cape Verde
		Zambia	Congo, Rep. of
	Non-mineral rich (14) (LI-2)	Benin	Cote d'Ivoire
		Burkina Faso	Djibouti
		Ethiopia	Egypt
		Gambia, The	Equatorial Guinea
		Ghana	Gabon
		Guinea Bissau	Lesotho
		Kenya	Libya
		Madagascar	Mauritius
		Malawi	Morocco
		Mozambique	Namibia
		Tanzania	Nigeria
		Togo	Sao Tome & Principe
		Uganda	Senegal
		Zimbabwe	Seychelles

TABLE 3—CONTINUED

		Low income (29)	Middle income (24) (MI)
Less favorable agricultural conditions (9) (LI-3)		Burundi	South Africa
		Chad	Sudan
		Comoros	Swaziland
		Eritrea	Tunisia
		Mali	
		Mauritania	
		Niger	
		Rwanda	
		Somalia	

Source: Authors' calculations based on Diao et al. 2007, Dixon, Gulliver, and Gibbon 2001, and World Bank 2010.
Notes: Countries classified here as middle income include those classified by the World Bank as lower-middle income and upper-middle income. An exception is Equatorial Guinea, which is classified by the World Bank as a high-income country but is included in the middle-income category for the purposes of this report.

levels and changes are calculated and compared for before and after 2003. Specifically, the data are averaged across four periods: 1990–1995, 1995–2003, 2003, and 2003–2009, using overlapping years to smooth the ends of the range. These five- to eight-year averages are more reliable for analyzing trends than year-to-year changes that are often fraught with large variations. The year 2003 is singled out as the year that CAADP was initiated, and thus serves as an instructive reference point. However, the value reported for 2003 is a simple average over the years 2002 to 2004, to remove the chance of a single-year fluctuation in the data series. The original annual country-level data can be viewed on the ReSAKSS website (www.resakss.org).

Enabling Environment

For a comprehensive assessment of the progress of CAADP implementation and achievements, it is important to analyze the broader context of the CAADP process and related policies, investments, and outcomes. Context is significant because multiple factors—many of them beyond the control of the CAADP decisionmakers and implementers—condition investment decisions and affect the various outputs and outcomes that CAADP seeks to achieve. Here, some of the key contextual factors are considered, including the policy and institutional environment, official development assistance (ODA), and macroeconomic management and performance.

Policy and institutional environment

There is wide recognition that agriculture and rural development must play a central role in economic growth, poverty reduction, and food and nutrition security improvement, as the implications of disinvestment in the sector during the structural adjustment era have become clear. This recognition is evident in recent intensifying efforts at redirecting and committing resources to agriculture and rural development. Prior to the 2003 Maputo declaration, for example, rich countries at the 2002 Monterrey Conference renewed their pledge to increase their development assistance from 0.2 percent to 0.7 percent of their GDP (UN 2002).

Since the 2003 Maputo declaration, the agriculture-led approach to African development proposed by the heads of state has been gaining support at all levels, culminating in various policy and funding initiatives that support African agriculture and aim to increase food and nutrition security. In 2003, the United States pledged a 50-percent increase over its $10 billion annual funding for U.S. development and humanitarian assistance, representing a $5 billion annual increase (USAID 2003). In 2005, the Blair Commission for Africa called for rich countries to double their aid to Africa and to cancel debts held by poor countries (Commission for Africa 2005). In 2007, the Commission of the European Communities (CEC) committed to advancing African agricultural development through cooperation with the African Union (CEC 2007). The CEC targeted, as priority areas for agricultural development, agricultural sector governance, research, knowledge systems, trade facilitation and quality insurance, natural resource management, livestock development and disease control, and risk management. The 2008 World Development Report argues that the agriculture sector holds promise for development, and urges concerted action by the international development community to level the playing field in international trade, to provide global public goods such as technologies for tropical food staples, and to help developing countries address climate change and overcome the looming health pandemics for

plants, animals, and humans (World Bank 2007). Further global support for agriculture-led development is reflected in the 2009 G8 L'Aquila promise of US$20 billion to the agricultural sector and the 2009 World Food Summit's recognition of, and commitment to support, the CAADP initiative.

In addition to the significant gains that have been made at the global policy level, growing institutional support for development at the continental level has also been important. Such institutions as the African Peer Review Mechanism (APRM), founded by the New Partnership for Africa's Development (NEPAD) in 2003, can raise the capacity of different actors in the development process in a sustainable and effective manner by enhancing the accountability of governments across the areas of political and economic management. A recent study of the impact of the APRM in agricultural development finds that, although agricultural issues have so far been largely neglected by the APRM in case study countries (Kenya and Ghana), there is opportunity for APRM to improve governance and implementation of CAADP, given greater vertical and horizontal coordination, with RECs and with other initiatives and stakeholders (Zimmerman et al. 2009). Furthermore, some point to an evolving trend of presidential term limits, democratic elections, and less peer and public tolerance for outright election corruption among African leaders as signs of growing democratic progress across the continent (Economist 2009).[7]

At the national level, positive developments include the adoption of the Poverty Reduction Strategy Papers (PRSPs) and related participatory processes by governments, such as outlining country strategic plans and clearly earmarking financial resources to achieve national development objectives. These efforts reflect the shift towards more pro-poor human capital development as well as gender-equity spending policies, both important for agricultural development.

Official Development Assistance (ODA)

In the 1980s and early 1990s, total official development assistance (ODA) to agriculture experienced a declining trend, an oft-cited consequence of structural adjustment programs that favored industrial sectors in developing economies. This declining trend continued through to the end of the 1990s: even though total ODA increased, disbursements to agriculture declined by nearly 50 percent (FAO 2003). ODA to the sector was replaced by emergency food aid, as countries became less self-sufficient in food production (FAO 2003).

The start of the new millennium saw a trend reversal consistent with the recent commitments made by the donor community to increase aid to Africa (Figure 2). For Africa as a whole, total average ODA per capita increased from $38.23 in 1995–2003 to $48.70 in 2003–09. Note, however, that, due to an unusually low per capita ODA in 2009 ($16.13 as compared with $43.85 in 2003), the annual average percent change over 2003–09 is negative (–10.3 percent), compared with 2.4 percent positive growth over 2003–08.

The recent increase in total ODA to African countries has not affected the regions uniformly. Sub-Saharan Africa has seen per capita ODA levels rise from an average of $38.42 in 1995–2003 to $45.75 in 2003 to $53.05 in 2003–09, with western, central, and eastern Africa the greatest beneficiaries of this increase (Figure 2). (Note that central Africa's high 2003 levels are driven by extremely high per capita ODA disbursement to Sao Tome and Principe.) For southern Africa, in contrast, ODA per capita

[7] Consider also the recent cases of Cote d'Ivoire, Sudan, Egypt, Tunisia, and Libya, among others.

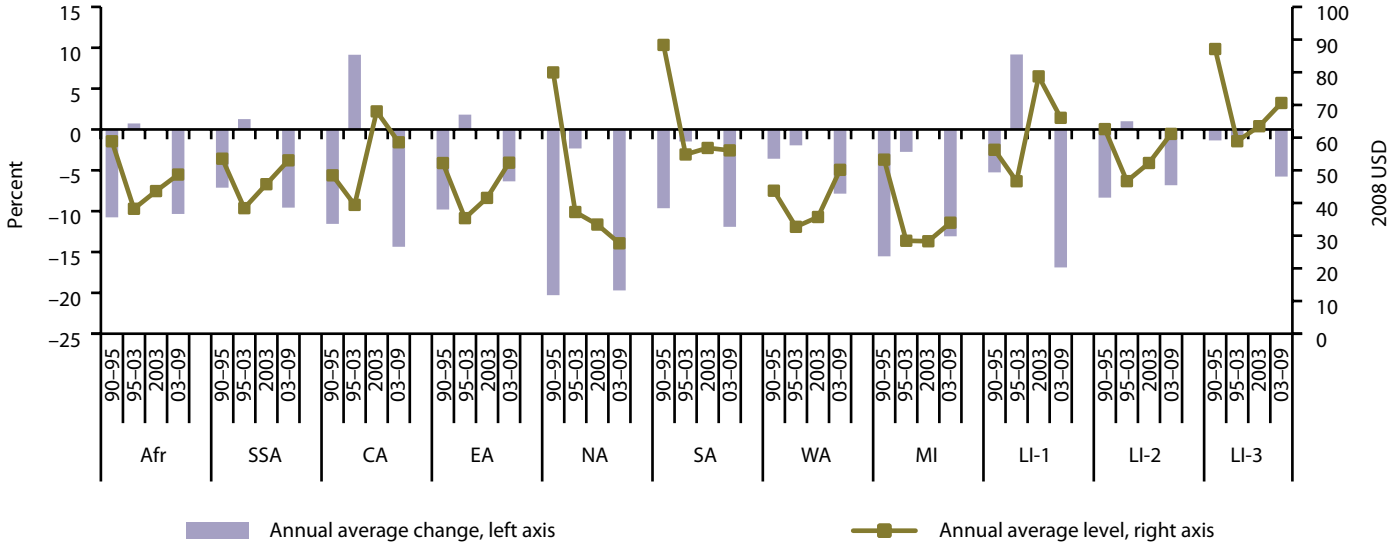
has stagnated since 1995, with a large annual loss of 11.9 percent over the 2003–09 period. Northern Africa has seen ODA levels fall dramatically from the 1990s through 2009; the most recent period recorded an average annual 19.7 percent reduction in ODA for this region. Every region experienced a percent loss in annual average ODA in the most recent period, driven by the significant decrease in ODA between 2008 and 2009.

Of the economic development categories, the greater beneficiaries of ODA appear to be these: *low income, more favorable agriculture, and mineral rich* (LI-1); *low income, more favorable agriculture, and non-mineral rich* (LI-2); and *low income and less favorable agriculture* (LI-3). These three categories reported average ODA per capita levels in the most recent period of $66.06, $61.14, and $70.60, respectively, as compared with $33.97 for the *middle-income* (MI) category.

As with total ODA, ODA to the agriculture sector (AgODA) has also seen an increase in recent years. However, the distribution of this increase differs from that of total ODA. Figure 3 shows that the shares of the ODA disbursements going to agriculture are quite low, with an average of 4.1 and 4.2 percent for Africa and SSA, and a regional spread between 1.6 percent (central Africa) and 5.9 percent (LI-2) over the 2003–09 period. It has increased significantly across the board, however, growing by at least 10.0 percent per year. It is interesting to note that low-income countries with both favorable (LI-2) and unfavorable (LI-3) conditions for agriculture were the largest recipients of AgODA. Meanwhile, AgODA to mineral-rich (LI-1) countries has experienced the most significant increase over the period (an average of 24.2 percent).

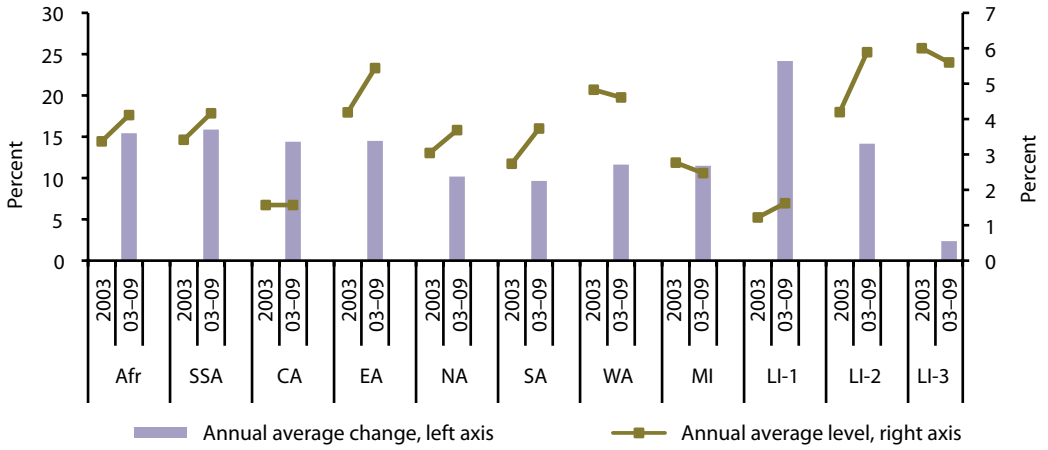
The average share of total ODA disbursed for emergency food aid in Africa overall and in SSA was comparable to the share of AgODA over the 2003–09 period, at about 4.0

FIGURE 2—TOTAL ODA PER CAPITA, GROSS DISBURSEMENTS (2008 USD)



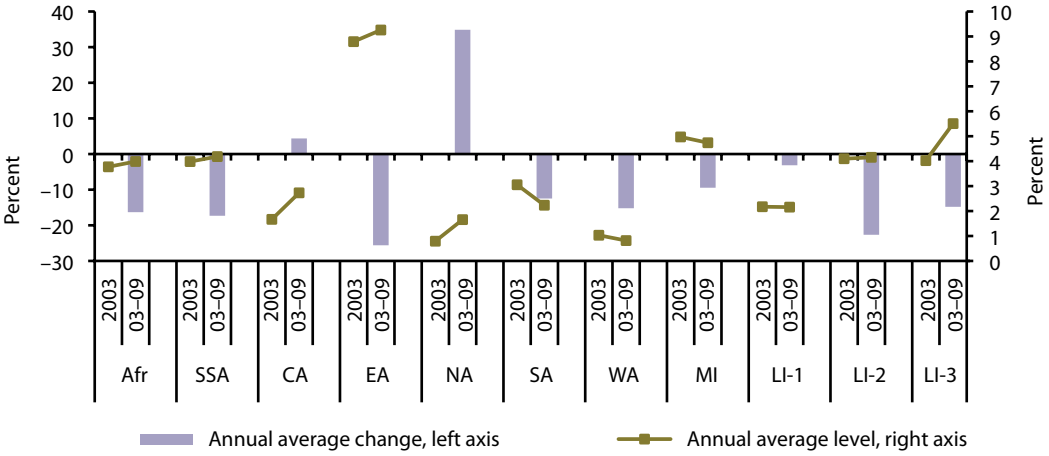
Source: Authors' calculation based on OECD 2010.
Note: In the above figure and in all subsequent figures, the abbreviation equivalents are: Afr=Africa; SSA=Sub-Saharan Africa; CA=central Africa; EA=eastern Africa; NA=northern Africa; SA=southern Africa; WA=western Africa; MI=middle income; LI-1=low income, more favorable agriculture, and mineral rich; LI-2= low income, more favorable agriculture, and non-mineral rich; LI-3=low income and less favorable agriculture.

FIGURE 3—AGRICULTURE ODA SHARE IN TOTAL ODA (%)



Source: Authors' calculation based on OECD 2010.
Note: Data not available prior to 2002.

FIGURE 4— EMERGENCY FOOD AID SHARE IN TOTAL ODA (%)



Source: Authors' calculation based on OECD 2010.

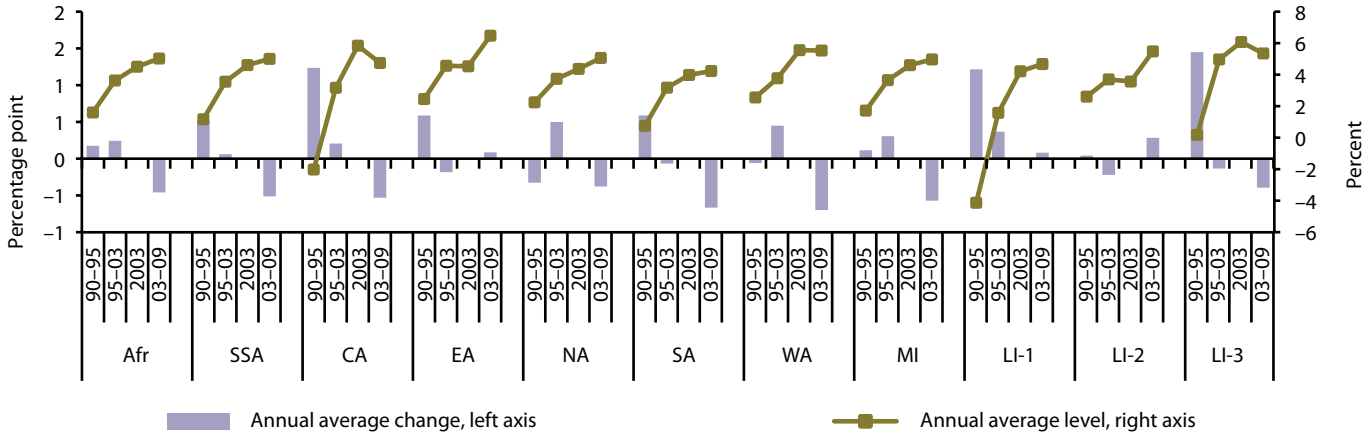
and 4.2 percent of total ODA respectively. However, while AgODA shares rose nearly uniformly over the period, emergency aid shares took very different directions in each region (Figure 4). Across Africa, emergency aid as a share of total ODA fell by 16.3 percent, with eastern Africa experiencing the greatest loss (25.6 percent) and northern Africa experiencing the greatest gain (34.9 percent). The dramatic increase for northern Africa is due to the relatively low initial levels in 2003 as well as subsequent large increases in Algeria, Egypt, and Mauritania (and limited data on the other countries in the region). Eastern Africa had the highest average share of total ODA disbursed for emergency food aid over 2003–09 (an average of 9.3 percent per year), driven by Sudan, Somalia, Ethiopia, and Eritrea.

Macroeconomic governance and performance

The impressive macroeconomic performance witnessed on the African continent in the 1990s, arising from increasing GDP growth, reduction in inflation, and significant improvement of the debt-to-GDP ratio (among other indicators), appears to have slowed down as the 2000s have progressed. Figure 5 shows that economic output for Africa as a whole expanded rapidly, from a low annual average growth rate of 1.6 percent in 1990–95 to 3.6 percent in 1995–2003 and to 5.03 percent in 2003–09. The rate of expansion in GDP increased over 2003–09 only for the eastern Africa region and for the two economic development

groups with more favorable agricultural conditions (that is, categories LI-1 and LI-2), by 0.1, 0.1, and 0.3 percentage points respectively. Other regions and groups, however, experienced a decline in the rate of expansion. Notable outliers driving growth trends in their respective regions include Equatorial Guinea of central Africa, where oil revenue caused GDP to more than double (ADBG 2008), and Liberia—one of the LI-1 countries, with more favorable agriculture and mineral resources—which grew at annual rates above 20 percent between its two civil wars.

FIGURE 5—GROWTH RATE OF GDP (CONSTANT 2000 USD)



Source: Authors' calculation based on World Bank 2010b.

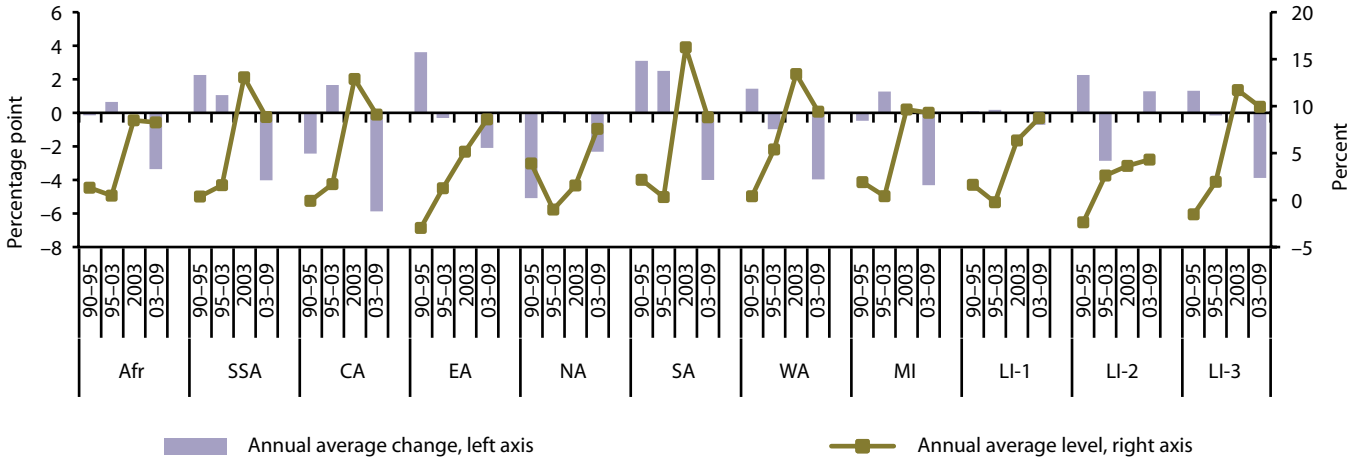
Agriculture has strong economy-wide linkage effects in the non-agricultural sector; consequently, expansion of the latter is critical for sustaining the high agricultural growth anticipated from implementation of CAADP.[8] The recent food price spike and financial crisis have slowed overall growth, although the generally strong macroeconomic fundamentals and the early implementation of countercyclical policies[9] among African countries have significantly mitigated the negative impacts that have plagued the developed market economies (IMF 2010a). In addition, less developed countries with fewer linkages to the global market were somewhat sheltered from the overall recession (IMF 2010a). Oil exporting African countries—such as Nigeria and Angola—are currently benefiting from resumption of the demand for oil, though they remain vulnerable to fluctuations in international oil prices (IMF 2010a).

Two other important economic indicators offer additional insight into the evolution of the enabling environment for African agriculture: inflation, and debt as a share of GDP. Trends in inflation are shown in Figure 6. Africa as a whole experienced relatively low inflation levels over the periods 1990–95 and 1995–2003, at an average of 1.3 and 0.5 percent respectively; inflation increased however to an average of 8.3 percent over 2003–09. This pattern, observed at the continental level, is reflected in

[8] Through such linkages as, for example, supply of agricultural inputs and transportation services at low prices and fostering upstream processing.

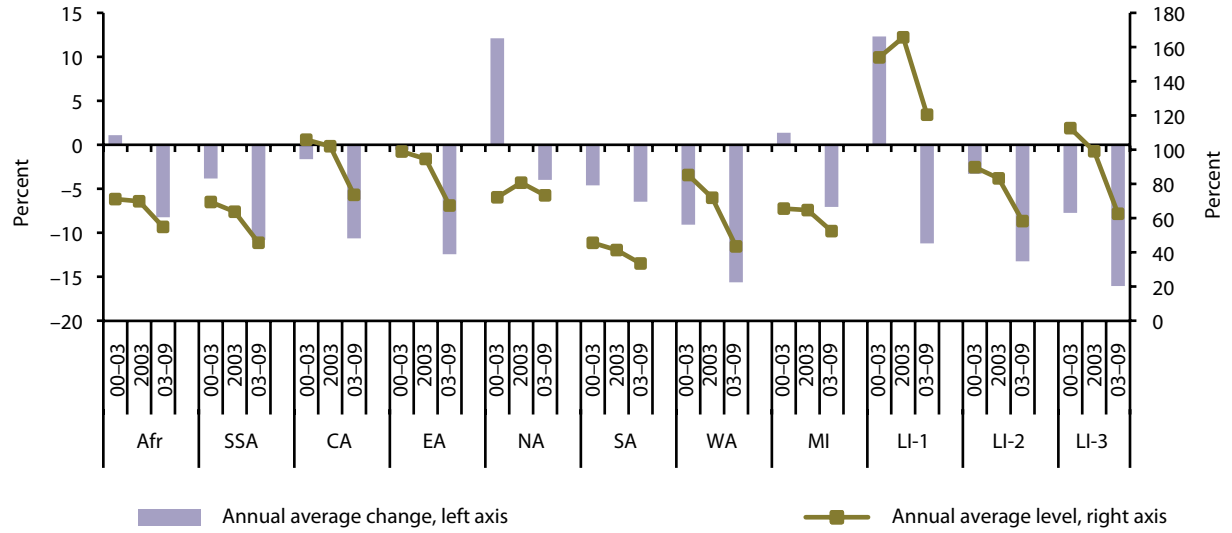
[9] For example, the sale of foreign reserves (employed particularly by oil exporting countries), the provision of fiscal stimulus packages, reduction of interest rates, employment of capital and exchange controls, and the establishment of new banking regulations (Kasekende, Brixova, and Ndikumana 2010).

FIGURE 6—INFLATION, GDP DEFLATOR (%)



Source: Authors' calculation based on World Bank 2010b.

FIGURE 7—GOVERNMENT GROSS DEBT AS PERCENT OF GDP



Source: Authors' calculation based on IMF 2010b.

the regions to differing degrees. Inflation in SSA and central, southern, and western Africa peaked in 2003, at 13.1, 12.9, 16.3, and 13.4 percent respectively. In contrast, the eastern and northern subregions experienced a consistent increase in average inflation, rising from negative average values in the 1990s to an average of 8 to 9 percent over 2003–09. Comoros, Eritrea, Mauritius, and Sudan drove the increase in the eastern region, while Libya, Morocco, Algeria, and Mauritania drove the increase in the northern region. Overall, inflation was under greater control following 2003 than in preceding years. With the exception of the LI-2 economic development group—favorable to agriculture but mineral poor—each group experienced an annual average decrease in inflation over 2003–09.

Figure 7 reflects significant improvement in the debt-to-GDP ratio, in both the geographic and

economic aggregations. For Africa as a whole, government debt as a percent of GDP declined from an annual average of 71.12 percent over 2000–03 to 54.86 percent over 2003–09. Southern Africa is the least indebted region as a fraction of its GDP, at 45.55 percent in 2000–03 and 33.46 percent in 2003–09. Across the economic development categories, the mineral-rich group (LI-1) is the most indebted relative to output, still standing at a hefty 120.46 percent in 2003–09, with Congo and Guinea driving this trend. The significant reductions in debt have been driven by debt forgiveness under two initiatives—heavily indebted poor countries (HIPC) and the multilateral debt relief initiative (MDRI) (IMF 2010; Ricksecker 2001). Rapid repayment and strong GDP growth performance have been instrumental as well. Ideally, this easing of debt will remove some pressure from government budgetary resources and increase the likelihood that countries can make good on their commitment of increasing resources available to the agricultural sector, in line with the Maputo declaration of allocating 10 percent of budget expenditures to the sector.

Progress in Implementation of CAADP

Roundtables and compacts

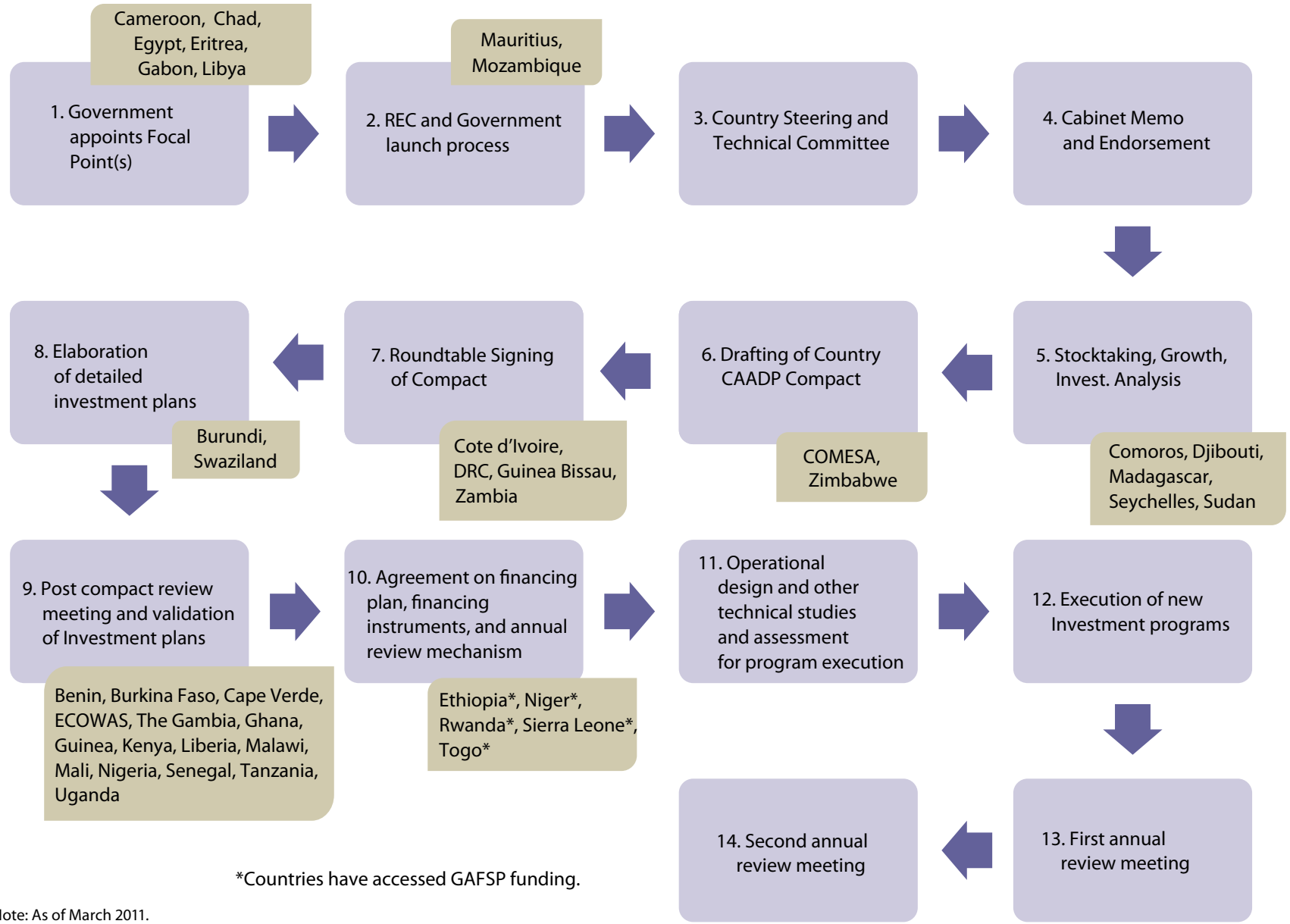
The first three quarters of 2010 witnessed renewed momentum in the country CAADP process. By end of 2010, 25 countries and one regional economic community (ECOWAS) had completed Roundtables and signed CAADP compacts (Figure 8; see also Annex Table B1). Following Rwanda's compact signing in 2007, no additional country compacts were signed until 2009, when twelve others completed their compacts, including a significant number of western Africa countries. The twelve countries are Benin, Burundi, Cape Verde, Ethiopia, The Gambia, Ghana, Liberia, Mali, Niger, Nigeria, Sierra Leone, and Togo. Between February and July 2010, nine more countries signed their compacts—Burkina Faso, Cote d'Ivoire, Guinea, Kenya, Malawi, Senegal, Swaziland, Tanzania, and Uganda—one in February, two each in March and April, and four in July. The three most recent signatories, the Democratic Republic of Congo (DRC), Guinea Bissau, and Zambia, signed CAADP country compacts between January and March 2011.

It is anticipated that, despite setbacks, a number of other countries will sign their CAADP compacts over the course of the coming year. For example, Zimbabwe was expected to sign its CAADP compact on June 30, 2010 (CAADP 2010), but the signing ceremony did not take place because state and non-state actors were still debating specific areas of the proposed investments. Mozambique, Sudan, and Seychelles are also expected to sign their compacts in the near future (NEPAD 2010a; FANRPAN 2010b). As of August 2010, Mozambique had made significant progress toward this milestone by establishing a national CAADP Team consisting of inter-ministerial and other actors and was bringing on board the FAO mission, CAADP experts, and joint NEPAD and CAADP partners in preparation for the next step of the process, the Roundtable (FANRPAN 2010b).

COMESA is making progress toward framing its regional compact. In August 2010, the Food Agriculture and Natural Resources Policy Analysis Network (FANRPAN) developed a framework for preparing the COMESA region compact (FANRPAN 2010a). A draft compact has been completed and is currently undergoing review and consultation by the COMESA-EAC-SADC tripartite framework (MSUSF 2010).

Although many countries have made substantial progress in CAADP implementation, a number of countries have not yet begun the process. In particular, most of the countries in the SADC region are only now

FIGURE 8—THE NATIONAL CAADP ROUNDTABLE PROCESS, SHOWING COUNTRY STATUS



*Countries have accessed GAFSP funding.

Note: As of March 2011.

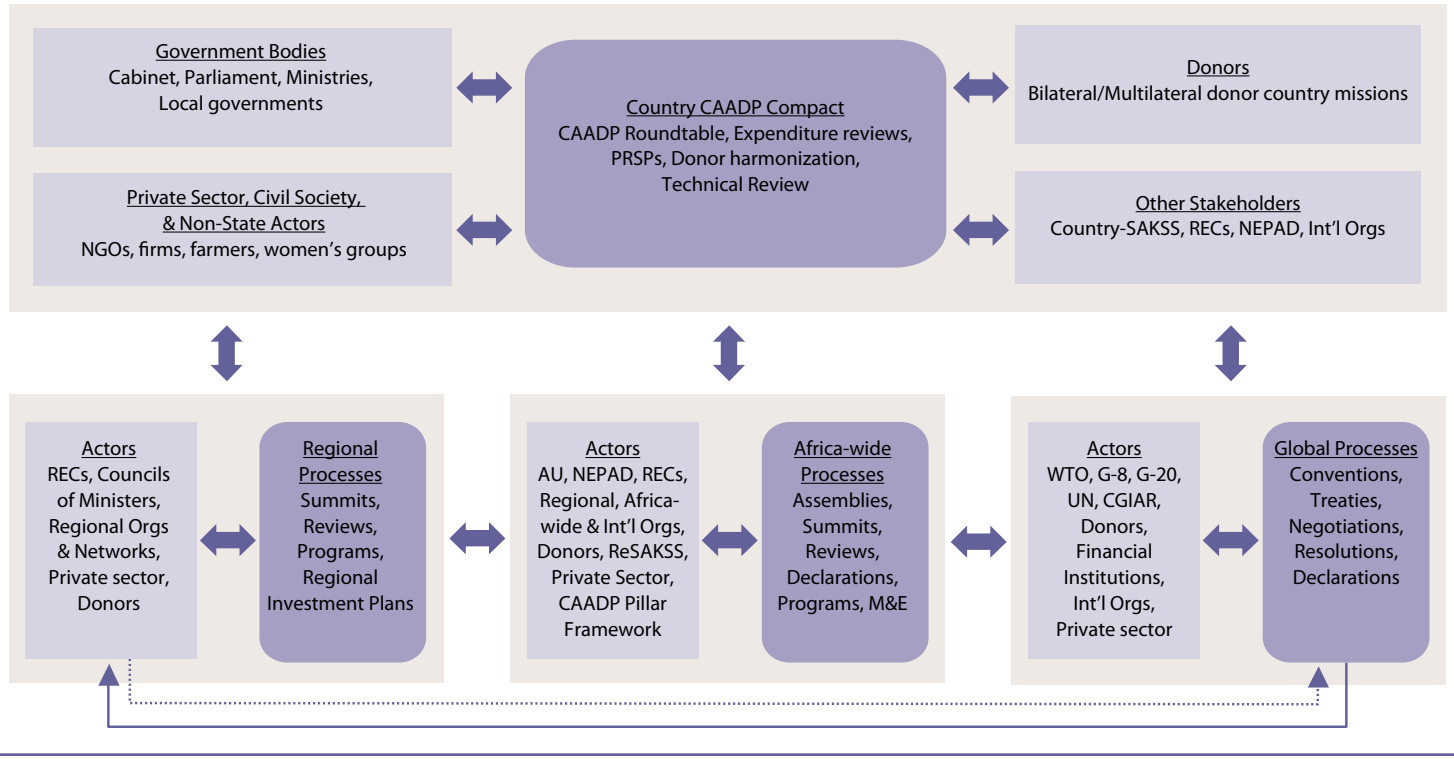
beginning to make plans to launch the process, which will depend on SADC to mobilize its member countries. Many of the countries that have not yet launched the process fall in the middle-income group (including Algeria, Angola, Botswana, Equatorial Guinea, Morocco, Sao Tome and Principe, and Tunisia), where agriculture is not a mainstay of the economy and where the urgency of launching the process is therefore relatively lower. Non-agricultural sources of growth and development (such as diamonds in Botswana and oil in Equatorial Guinea and Angola) are the more strategic sectors for those governments. Countries facing internal conflict or frequent political upheaval, such as Somalia and Mauritania, also face challenges in launching such a participatory process. Finally, in some other cases such as Mauritius and Egypt, the CAADP process has stagnated in the early stages.

Process and inclusion

At the core of CAADP is posited an inclusive process that engages actors and sectors at all levels of society, ranging from high-level government officials to rural farming constituencies. Figure 9 shows the expected interactions at different stages of the process.

At the 6th CAADP Partnership Platform in April 2010, it was determined that the participation of non-state actors (NSA) in the CAADP process had been inconsistent due to number of factors: a lack of legitimacy for and accountability of NSAs; limited resources and capacity for effective participation; an absence of standards for quality participation; low

FIGURE 9—COUNTRY CAADP COMPACT PROCESS PARTICIPATION FRAMEWORK



prioritization of NSA participation by CAADP lead institutions; a culture of distrust rather than collaboration; and lack of information among NSAs (Randall 2010). A working group was formed to address these issues and an action planning follow-up workshop was held in October 2010 (Randall 2010), resulting in an options paper and specific guidelines for the participation of NSAs in the CAADP process.

The options paper (Randall 2010) suggested six approaches for improving the CAADP process: 1) establishing transparent selection processes for NSAs; 2) providing grants to NSAs so as to enable them to effectively represent their constituencies; 3a) capacity-building efforts (for both state and non-state actors) to achieve greater and more quality participation; 3b) making policy experts available to NSAs; 4) establishing guideline standards for quality NSA participation; and 5) investing in leadership and coordination. A draft of guidelines and associated recommendations to enhance NSA participation at the country, regional, and continental levels was put forth in early 2011 (Randall 2011a, 2011b), building on the options paper. These guidelines address: finding NSAs to join the country CAADP team; working in partnership with NSAs; financing NSA activities; developing NSA capacity; enhancing communication and consultation with NSA constituencies; ensuring mutual accountability; and engaging members of the government (Randall 2011a and 2011b). Emphasized throughout the guidelines is the importance of tailoring strategies and actions to each country's needs.

An NSA Coordination Task Team was also established, with the objective of supporting NSA participation at the country level through workshops to introduce countries to the guidelines and assist them in adapting those guidelines to their national context (Bwalya 2011).

Despite the concerns regarding the *quality* of NSA participation in the CAADP process, the *quantity* appears to be high. In Uganda, for example, for the development and review of the country's Development Strategy and Investment Plan, the Ministry of Agriculture, Animal Industries, and Fisheries (the lead agency) engaged parliamentarians, local government officials, other line ministries and agencies, civil society and farmer-based organizations, and private sector firms and organizations, along with donor partners (Uganda Technical Review 2010). Likewise, Senegal engaged government ministers, research institutes, farmers' organizations, youth organizations, women's organizations, civil society members, private sector organizations, and technical partners in various aspects of the process. For example, formulation of the investment plan mobilized inter-ministerial collaboration, involving the Ministries of Agriculture, Finance, Environment and Natural Resources, as well as new partnerships between producers and private sector organizations (Senegal Technical Review 2010). Comparably extensive high levels of participation and engagement are documented in the technical reviews of many of the country investment plans.[10]

Post-compact investment plans, technical reviews, and financing

Since May 2010, 17 countries as well as the ECOWAS REC have moved on to develop agricultural investment plans that have gone through different

[10] For more information, individual country investment plans and technical reviews on their respective country pages are available at www.ReSAKSS.org and in the CAADP library at http://www.caadp.net/library-country-status-updates.php

stages of the Technical Review process (Figure 8, steps 9 and 10). ECOWAS and its member states have outperformed the other regions: 15 of the 24 post-compact countries are from the ECOWAS region.

In 2010 fifteen of the countries that completed the Technical Review process submitted their agricultural investment plans for funding under the Global Agriculture and Food Security Program (GAFSP), designed to fill gaps in their budgetary commitments from government, private-sector, and other development partner sources. So far five countries have been awarded GAFSP funding totaling $223.5 million (Figure 8, step 10); three of them—Rwanda ($50 million), Sierra Leone ($50 million), and Togo ($39 million)—received their awards in June 2010 and the two remaining—Ethiopia ($51.5 million) and Niger ($33 million)—in November 2010.[11] The GAFSP fund call for proposals was first announced in May 2010, with two proposal submission deadlines of June 14, 2010 and October 1, 2010. While only a third of the proposals from African countries have been funded so far, it is anticipated that more funds will be become available in early 2011.

The renewed momentum in the CAADP process in the second half of 2010 could be attributed to the GAFSP fund call for proposals in May 2010. With the anticipation of another round of awards in early 2011, another burst of momentum is likely to be seen shortly. Such a response to the promise of funding indicates that the AU institutions will need to develop mechanisms to link CAADP to bilateral and other sources of funding for the agriculture sector—including a country's own resources—so that the GAFSP is not misinterpreted as the sole window for financing country plans.

Implementation of M&E

A major step in the CAADP process is the establishment and operation of systems of accountability, monitoring, and evaluation. Improving the level, relevance, and reliability of evidence in decisionmaking processes is essential for the effective design and implementation of policies and programs, and ultimately for greater and more desirable development outcomes. This step therefore calls for establishing systems at several levels: SAKSS nodes at the country level; a Monitoring and Evaluation (M&E) Framework at the regional and continental levels; and a Mutual Accountability Framework (MAF) at the national and international levels.

At the country level, monitoring and evaluation will take place via country SAKSS nodes and networks. These nodes and networks should provide a framework within which targeted knowledge products—emanating from policy-relevant research, objective analysis, monitoring and evaluation, and high quality local data—can be made available for the decisionmaking processes related to the design and implementation of investment plans and programs. To date both Uganda and Rwanda have operational country SAKSS nodes. Launched in 2008, the Uganda SAKSS node is hosted by the Secretariat of the Plan for the Modernization of Agriculture. The node collaborates with the Uganda Strategy Support System (USSP) as well as with national partners, donors, and ministries to provide data and analyses to Ugandan policy makers (Johnson and Flaherty 2008). The Rwanda SAKSS node, established in April 2010, is based in the Ministry of Agriculture and Animal Resources under the supervision of the Permanent Secretary. Its primary function is to generate,

[11] More analysis on funding is available in the chapter on agricultural financing and investments.

compile, and share analyses, data, and other knowledge products relevant to Rwanda's agricultural and rural development, in line with the objectives of the Strategic Plan for Agricultural Transformation of the Economic Development and Poverty Reduction Strategy (PSTA-EDPRS). The SAKSS node activities are carried out in collaboration with a network of Rwandan data providers and users, international researchers, and other stakeholders on agriculture and rural development as well as with ReSAKSS-ECA. Other countries, including Ghana, Malawi, Mozambique, and Nigeria, are currently in the process of establishing their country SAKSS nodes.

Each country that signs a CAADP compact specifies the mechanisms for establishing a country SAKSS node and defines the role it will play in monitoring and evaluating programs within their investment plans. As in the Rwanda SAKSS node, it will be important for all CAADP implementing countries to strive to develop a system that allows them to systematically (1) mobilize and link existing centers of knowledge products to guide CAADP implementation; (2) channel findings and other technical information to decisionmakers, both inside and outside of government; and (3) sustainably build knowledge-management capacities in the country.

The CAADP M&E Framework (Benin et al. 2010) was revised and validated at the CAADP M&E Validation Workshop held on March 1–3, 2010 in Johannesburg, South Africa. This framework serves as a guide for the ongoing CAADP monitoring and evaluation system at the regional and continental levels. According to the validated M&E Framework, the objective of such an M&E system is "to assess the stage at which countries are in the process, why countries are progressing the way that they are, constraints and opportunities, and roles of different stakeholders in the process, including their capacities to undertake their roles" (Benin et al. 2010). To that end, the framework facilitates the regular assessment of the amount and type of CAADP investments made, and whether and how the investments and related policies and practices are raising growth and/or reducing poverty and hunger. These assessments are analyzed, synthesized, and presented in ReSAKSS's flagship publication—the Annual Trends and Outlook Report.

The CAADP Mutual Accountability Framework (MAF) is informed by the M&E Framework but differs in several important respects. Whereas the M&E report provides evidence on country and CAADP progress, the focus of the MAF is to use that evidence to "provide a basis for discussions and debate on stakeholder performance on areas of mutual commitments" (AU/NEPAD 2010b). Further, the MAF encompasses two types of accountability: the accountability of development partners (DPs) and countries to their constituencies, and the accountability of DPs and countries to each other in terms of aid flows and development outcomes (AU/NEPAD 2010c). Following endorsement of the MAF at the 7th CAADP PP in March 2011, the first Mutual Accountability report is expected to be presented at the 8th CAADP PP in 2012.

In the upcoming chapters we examine trends in: (i) agricultural financing and investment, including progress toward meeting the Maputo Declaration of allocating 10 percent of national budget expenditure to the agriculture sector; (ii) agricultural performance, including progress toward meeting 6 percent annual average growth in the sector; and (iii) welfare outcomes, including progress toward meeting MDG1, halving poverty and hunger.

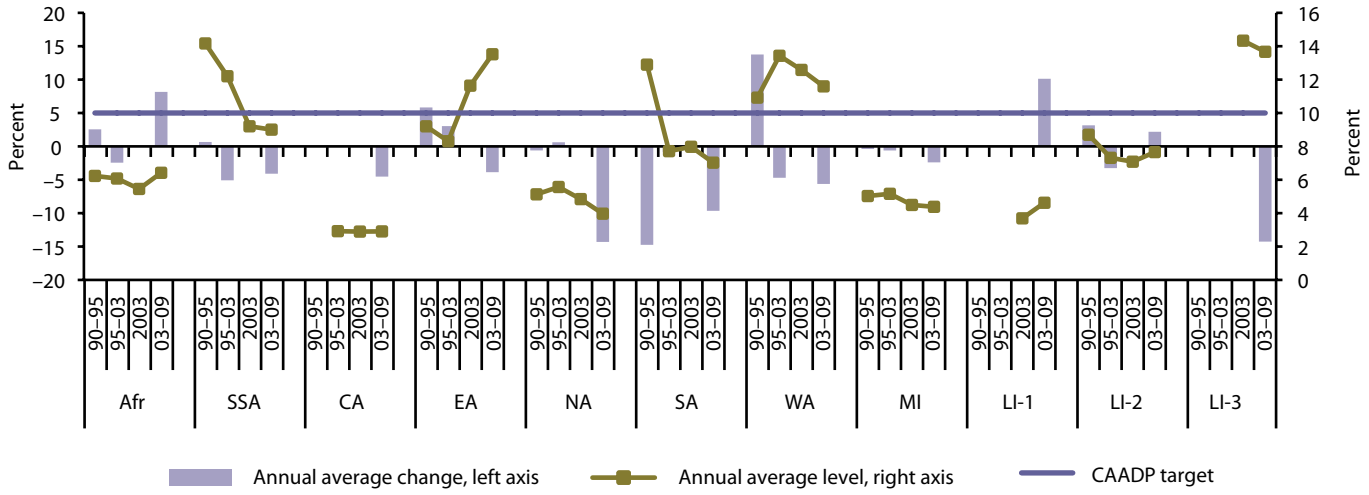
Agriculture Financing and Expenditures

The 2003 Maputo Declaration set a target for agricultural financing by governments of 10 percent of total national expenditures. This section highlights national and regional trends toward meeting the 10-percent target, as well as the overall objectives and future financing envisioned in several national investment plans.

CAADP 10 percent agriculture expenditure target

Although the absolute levels of agriculture spending have increased substantially throughout Africa, in many cases the amounts spent relative to total national expenditures have declined since the 1990s (Figure 10). For Africa as a whole, the percentage of total expenditures spent on the sector on average since 1990 has barely surpassed 6 percent, well below the CAADP target of 10 percent. Recently, however, the declining trend in agricultural expenditure shares has been partially reversed; shares in the most recent period are nearly at the same level as in the 1990–95 period (6.4 percent in 2003–09, compared to 6.8 percent in 1990–95).

FIGURE 10—AGRICULTURE EXPENDITURES (PERCENT OF TOTAL EXPENDITURES)



Source: Authors' calculation based on IMF 2010b, national, and CAADP sources.

TABLE 4—BUDGET ALLOCATION TO AGRICULTURE IN CAADP INVESTMENT PLANS

Country	National Agricultural Investment Plan (years)	Duration	Total (USD Millions)	Annual average spending	Annual average change (%)	Percent of total expenditure
Benin	PNIA	2011–2015	987.99	197.60	—	—
Ethiopia	PIF	2010–2020	11,832.00	1,183.20	10.24	13.0
Gambia	GNAIP	2011–2015	296.68	59.34	—	6.0
Ghana	METASIP	2011–2015	1,071.60	214.32	–7.45	10.0
Kenya	MTIP	2011–2015	3,088.00	617.60	12.39	4.9
Liberia	LASIP	2011–2015	947.73	189.55	–0.25	—
Malawi	ASWAp	2011–2014	1,752.00	438.00	3.13	13.7
Mali	PNIP-SA	2011–2015	737.82	147.56	—	17.0
Nigeria	NAIP	2011–2014	1,496.60	374.15	–2.07	—
Rwanda	PSTA II	2010–2012	815.43	271.81	10.76	—
Senegal	PNIA	2011–2015	2,692.00	538.40	—	—
Sierra Leone	SCP	2010–2014	402.60	80.52	—	—
Uganda	DSIP	2011–2015	1,365.60	273.12	7.45	5.1

Source: Authors' aggregation based on GAFSP 2010 documents.

Regional patterns vary considerably within the continent. For SSA, the percentage spent on the sector on average declined from 14.2 percent in 1990–95 to 12.2 percent in 1995–2003 and still further to 9.0 percent in 2003–09. This declining trend is seen also in the northern, southern, and western Africa subregions, but while the 2003–09 percentages in the northern and southern regions were below the CAADP target (4.0 and 7.0 percent, respectively), the percentage spent in the western region has remained above it, at 11.6 percent. The declines in the western and southern regions were driven by a wide mix of spending experiences across countries, with some countries increasing their spending on average over the period (Angola, Liberia, and Namibia) and others reducing it (Lesotho, Mozambique, and Ghana). Northern Africa's decline, in contrast, was driven by dwindling spending shares in all countries, with the largest average annual decline of nearly 5.0 percent occurring in Morocco. Only eastern Africa has shown a long-term increase in the percentage of total expenditures spent on the sector, at 10.0, 8.3, and 13.5 percent in 1990–95, 1995–2003, and 2003–09, respectively. The central region performed the poorest in terms of percentage allocated to the sector, stagnating at an average of 2.9 percent since 1995.

At the national level, six countries stand out as having reached an average annual expenditure share of over 10 percent in the most recent period. These six countries are Burkina Faso, Guinea, Mali, Niger, and Senegal in the western Africa region, as well as Ethiopia in the eastern region.

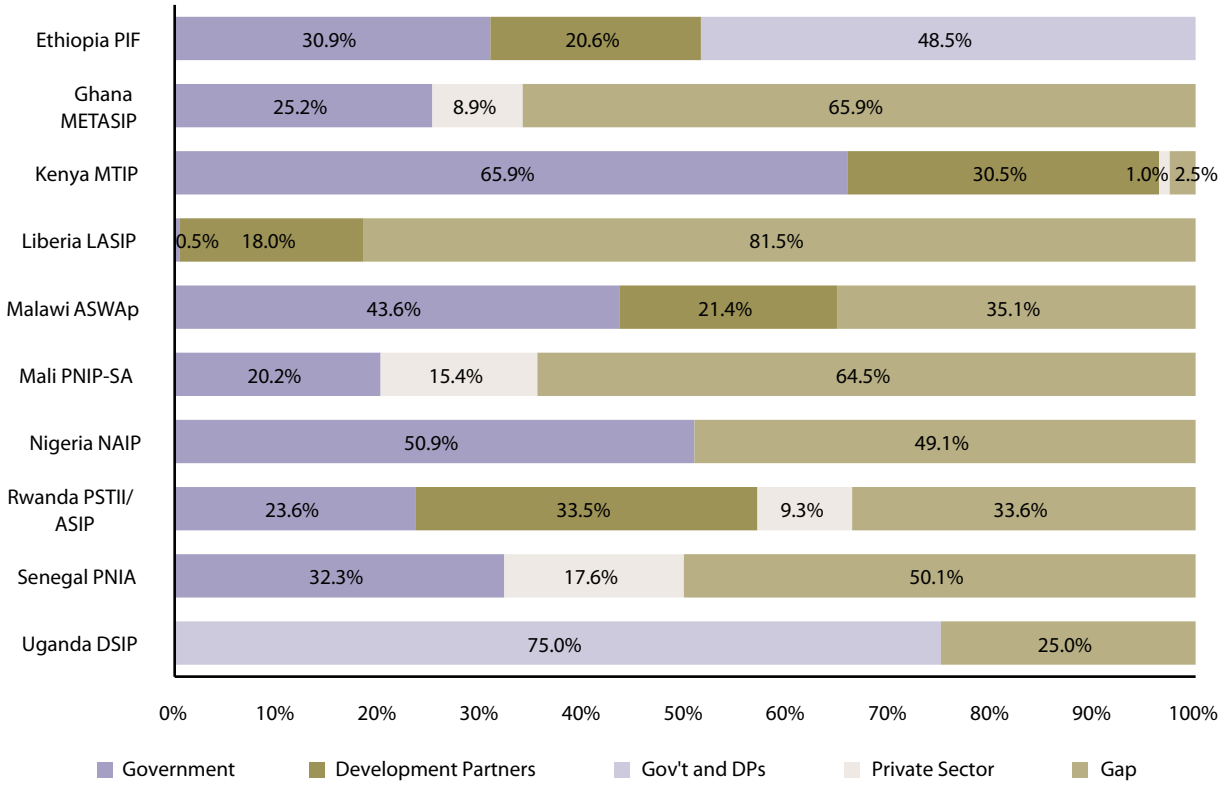
Data are limited for carrying out an analysis by economic development classification over all time periods, but a few trends emerge. Countries with less favorable agriculture conditions (LI-3) are devoting more of their total resources to agriculture (13.7 percent in 2003–09) than any other group, including those with conditions more favorable to agriculture (at 7.7 percent in 2003–09). However, both of the more favorable groups have

increased their spending percentages over the same period (that is, groups LI-1 and LI-2 in Figure 10).

Financing future agricultural investments

What is the outlook for spending on the sector in the future, and how will it be financed? Many of the countries in the post-compact process have articulated answers to this question in the form of national agricultural investment plans (NAIPs)[12] projecting investment allocations over the next five to ten years. Examples of these plans are presented in Table 4. If budgets are executed as planned, some countries will clearly outperform the CAADP 10 percent target: Ethiopia at 13 percent; Malawi at 14 percent; and Mali at 17 percent. Ghana will just meet the target; three other countries—The Gambia (6 percent), Kenya (5 percent), and Uganda (5 percent)—will fail it. Note that The Gambia's plan does show significant improvement over the previous decade, when the average agriculture expenditure was less than 3 percent per year.

FIGURE 11—SOURCE OF CAADP INVESTMENT PLAN FUNDING



Source: Authors' aggregation based on GAFSP 2010 documents and Ethiopia PIF. Uganda's funding sources are not disaggregated in the figure because the disaggregated data was not available.

Consideration of the incremental budget projected over future years reveals contrasting strategies across the countries. For example, while the budgets in many of the countries (including Ethiopia, Kenya, Rwanda, and

[12] The term NAIP is adopted here, though each country plan has a specific name (see Table 3).

Uganda) show strong positive growth throughout the duration of the plans, the plans of Ghana and Nigeria show declining trends, emphasizing larger investments in the beginning. In comparison to historical expenditures, the Uganda NAIP maintains its past agriculture expenditure shares, while that of Kenya represents a decrease.

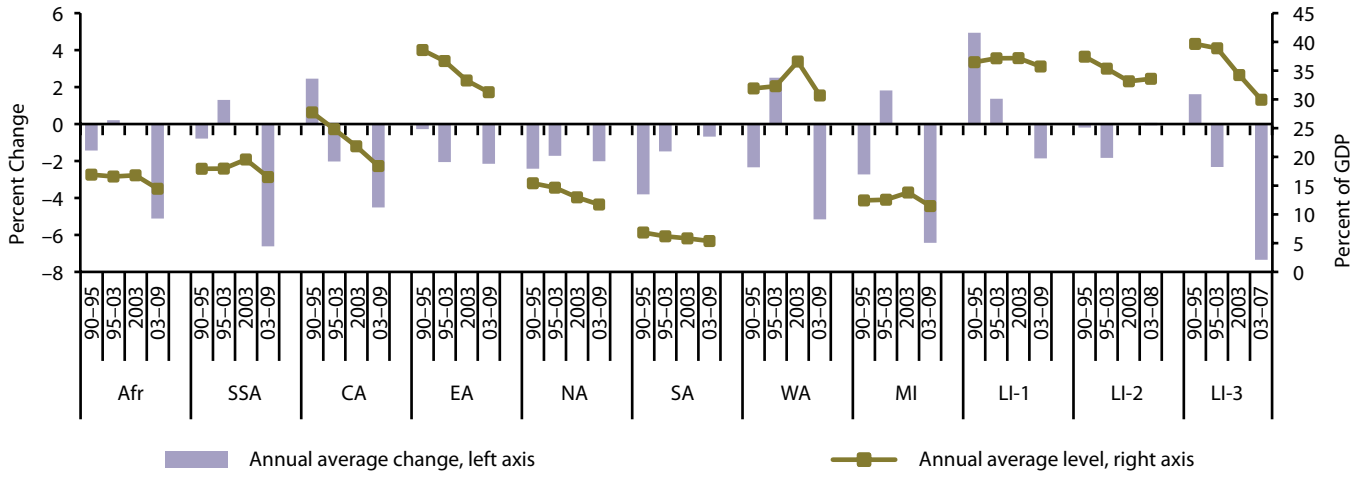
Most of the expected funding for these CAADP investment plans in the different countries depends on contributions by development partners (Figure 11). Only in Nigeria and Kenya is government financing expected to account for over one-half of total expenditure, at 51 and 66 percent respectively. Indeed, in many countries the funding gap is quite large—at 50 percent or more for Ghana, Liberia, Mali, Nigeria, and Senegal. Liberia's plan in particular is quite disconcerting in that government contributions make up less than 1 percent of the total investment plan; development partners cover 18 percent, and the remaining 82 percent remains unfunded as yet.

Agricultural Productivity, Growth, and Trade Performance

This section focuses on major agriculture sector performance indicators, including productivity growth and sources of growth. The size of the agriculture sector is first measured by agriculture value added as a percentage of GDP, to establish the context of the observed trends in the productivity, growth, and trade indicators. Figure 12 shows that, even though agriculture still contributes a substantial portion to total national output, the size of the sector relative to other sectors of the economy has declined significantly for the continent as a whole, as well as across all sub-regions and economic groups. This does not necessarily reflect poor performance of the agricultural sector or its diminished importance. Rather, growth of other sectors such as industry and services could signify a transformation of the economy.

For Africa as a whole, the size of the sector declined on average from 16.9 percent of GDP in 1990–95 to 14.5 percent in 2003–09. Two regions in particular—central and eastern Africa—saw significant declines in the size

FIGURE 12—AGRICULTURE VALUE ADDED (PERCENT OF GDP)



Source: Authors' calculation based on World Bank 2010b.

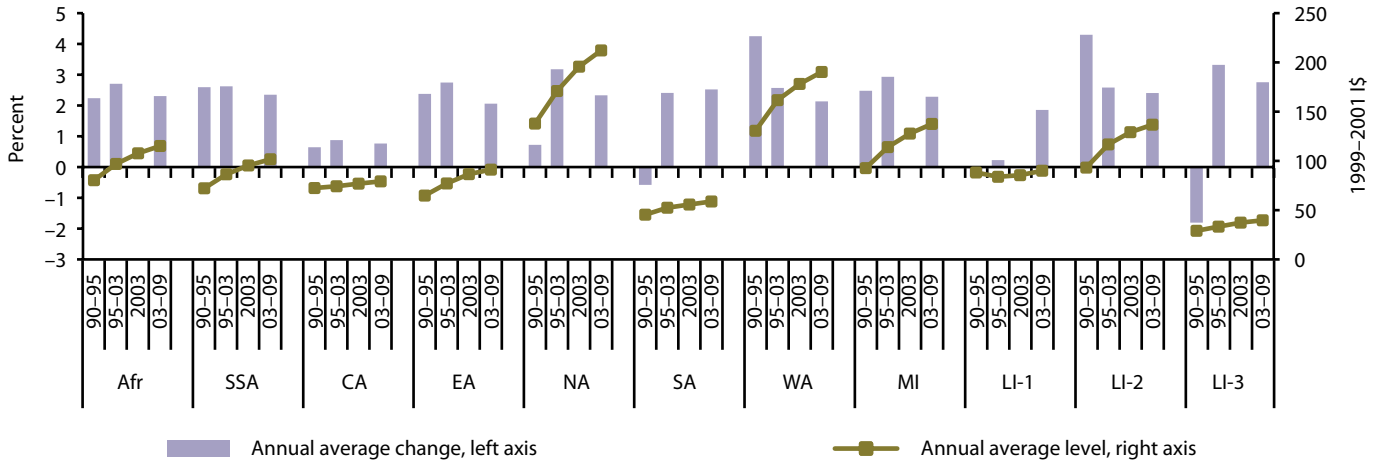
of the agricultural sector relative to total GDP. These two regional trends are in large part responsible for the continental decline.

The agriculture sector remains largest in eastern Africa (31.1 percent), driven in part by Ethiopia and Tanzania, where agriculture accounts for 46.0 percent of GDP in the latest period (2003–09). Northern Africa (11.7 percent) and southern Africa (5.4 percent) rely much less on agriculture as a source of GDP.[13] Several countries' economies are more diversified, including major non-agricultural industries or services, and thus heavily influence their regional averages: Algeria (9.1 percent) and Libya (2.6 percent) in the northern region; South Africa (3.1 percent) in the southern region. In terms of economic development categories, the agriculture sector is smallest in middle-income (MI) countries (11.4 percent in 2003–09); for low-income countries (LI-2), agriculture accounts for nearly 30 percent of GDP. While the overall trend for the continent implies a diminishing role for agriculture in the economy, it does not signify poor growth. The agriculture sector still plays a vital role in the economies of many African countries.

Agricultural productivity

Increasing productivity is at the heart of CAADP Pillar 3, as productivity is an essential component of boosting agricultural performance and trade. The growth or decline of productivity indicators over time can shed light on relative sources of growth as well as on resource and factor constraints. Trends for land and labor productivity and cereal yields—the indicators used to proxy productivity—are highly variable across both the geographic and economic groupings. Nevertheless, overall trends indicate that agricultural productivity in Africa has been rising at only moderate rates

FIGURE 13—AGRICULTURE VALUE ADDED PER UNIT AGRICULTURAL LAND AREA (1999–2001 INTERNATIONAL $)



Source: Authors' calculation based on FAO 2010.

[13] The exclusion of South Africa from the southern Africa calculations gives a percentage of 13.1 percent.

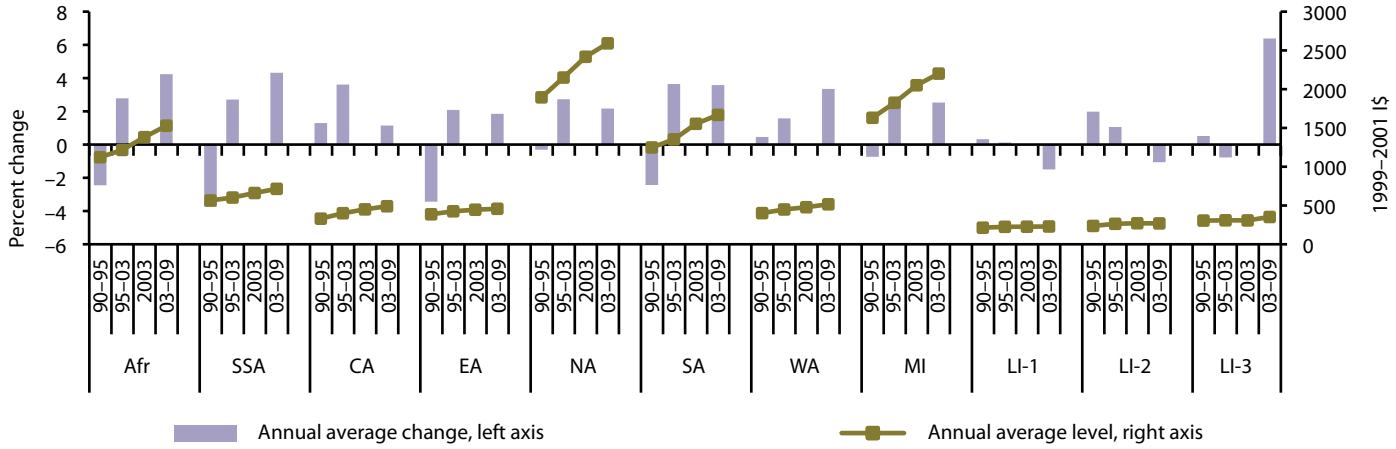
since the 1990s and still is far below productivity levels found in other parts of the world.

Land productivity has increased in most regions, but in many cases only marginally (Figure 13). During the latest period, continental land productivity increased on average by 2.3 percent per year; the Sub-Saharan Africa average was similar, at 2.4 percent. Annual land productivity growth has hovered around 2.2 to 2.5 percent in all geographic subregions, with the exception of central Africa, where it has remained almost stagnant—increasing at less than one percent annually. The DRC drives this trend with 0.2 percent growth in the latest period; countries such as Equatorial Guinea and Chad also contribute to the poor performance of the central region, with growth rates of 0.6 percent and 0.5 percent respectively.

In those countries with less favorable agricultural conditions (LI-3), land productivity remains far below the SSA average. Annual growth here has been only marginally positive—averaging only 2.7 percent in the latest period. Land productivity in the less-favorable agricultural countries ($39.7/ha) is roughly one-third of that of the middle-income countries ($137.5/ha).[14] Land productivity for the mineral-rich countries, LI-1, ($90.0/ha) is not far from the SSA average ($101.7/ha) but growth has been rather poor, averaging 0.2 percent in the 1995–2003 period and 1.9 percent in the latest.

Labor productivity (Figure 14) follows a similarly dismaying trend. In no region except western Africa have productivity growth rates in the latest period been above 3 percent. Sierra Leone (11.6 percent) and Nigeria (6.4 percent) have been the primary drivers of western Africa's average growth rate in the latest period. Other countries in the region have not performed as well, with growth rates typically less than 3.0 percent and as low as –3.0 percent (Benin). The central region stands out as the

FIGURE 14—AGRICULTURE VALUE ADDED PER WORKER (1999–2001 INTERNATIONAL $)



Source: Authors' calculation based on FAO 2010.

[14] Unless otherwise noted, all dollar figures are International dollars (I$).

only region in which labor productivity has actually declined since the 1990s, decreasing from the already low value of $337.1/worker in the 1990–95 period to $313.5/ha in the 2003–06 period. The DRC is primarily responsible for the region's poor performance, declining from $301.1/ ha in 1990–95 to $195.6/ha in the latest period; Burundi has also had negative growth in each of the periods reported.

For the middle-income (MI) countries, labor productivity is nearly triple that of the other regions, growing at an annual average rate of between 2.3 and 3.1 percent over the last decade. The drivers of this labor productivity growth are Nigeria (6.4 percent), South Africa (4.8 percent), and Libya (3.9 percent). This contrasts with productivity in the lower-income group—including both the mineral-rich countries (LI-1) and the more/less favorable agricultural countries (LI-2, LI-3)—with labor productivity below $348/ha and growing by less than 2.0 percent since 1990.

Not surprisingly, regional performance of cereal yields mimics that of land and labor productivity across the continent. Northern Africa in the latest period shows yield levels nearly 2.5 times higher than those in western Africa (1.13 tons/ha), eastern Africa (1.14 tons/ha), or central Africa (0.93 tons/ha) (see Figure 15). In each of these other regions, yields have generally remained stagnant at around 1 ton per hectare, with annual growth rates of 1 to 2 percent. With population growth rates at growing at 2.3 to 2.8 percent per year, in the absence of significant effort these regions are likely to continue to under-produce in the future, relying on imports to meet food needs.

Moderate productivity levels and growth rates can, to a great degree, be attributed to low fertilization across the continent (Figure 16). Comparing fertilizer use with productivity trends, it becomes clear why northern Africa and middle-income countries outperform the others in productivity. As Figure 16 shows, only northern Africa and the middle-income group show increased use of inorganic fertilizer. Given the generally declining overall trend, the target proposed by the 2006 Abuja Declaration—Fertilizer for an African Green Revolution—of increasing the use of fertilizer from an average of 8 kilograms per hectare to at least 50 kilograms per hectare by 2015 seems very daunting.

As fertilizer is a key ingredient for plant growth, increasing its use and financing will contribute to raising productivity on the continent. The observed trends in fertilizer use, along with low use of other productivity-enhancing technologies and the above productivity trends, suggest that agricultural output on the continent has derived more from area expansion than from technological advancement (Nin Pratt and Yu 2008).

CAADP 6 percent agricultural GDP growth target

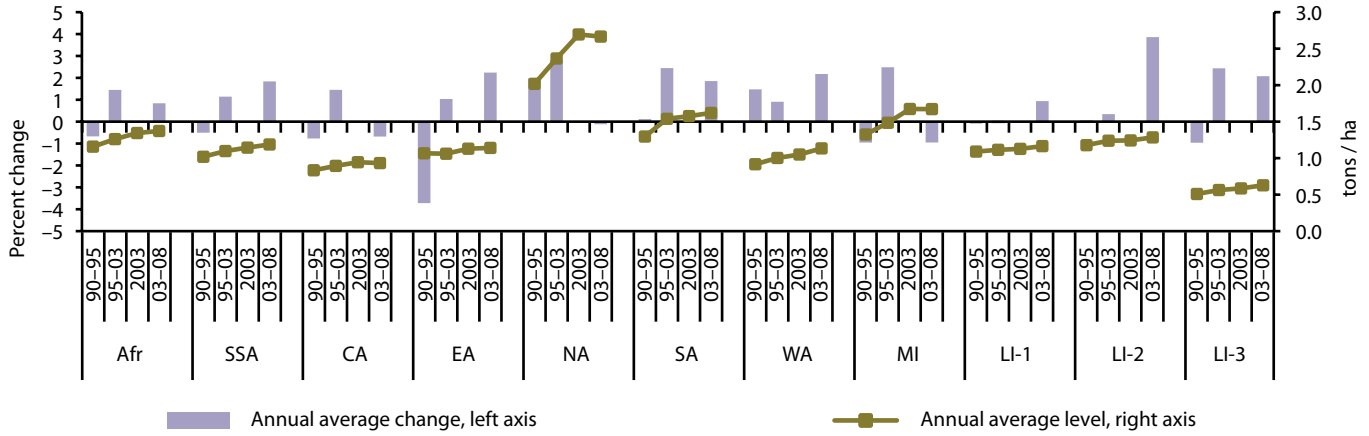
Consistent with these modest productivity gains, overall growth in agricultural output has been moderate, with significant variation in the trends. Average annual agricultural GDP (AgGDP) growth has rarely reached the six percent CAADP target in any of the geographic subregions or economic categories (Figure 17). For Africa as a whole, the annual average growth rates were 2.8, 4.6, and 4.5 percent in 1990–95, 1995–2003, and 2003–09, respectively. This trend is dominated by northern Africa, which experienced 3.4, 5.4, and 5.1 percent growth over these time periods. The SSA and the eastern, southern, and western Africa subregions show an upward trend in performance; the main countries causing these upward trends are Ethiopia for eastern Africa; Angola, Malawi, Mozambique, and South Africa for southern Africa; and Benin, Ghana, Guinea, Niger, and Nigeria for western Africa. As the bar graphs in Figure 17 show, growth in agricultural output has been erratic in the economic categories

as well. AgGDP growth also experienced a strong upward trend in the low-income economic group (not mineral rich: LI-2 and LI-3), while the less favorable agriculture (LI-3) countries almost met the 6 percent CAADP target in the most recent period.

Agricultural trade

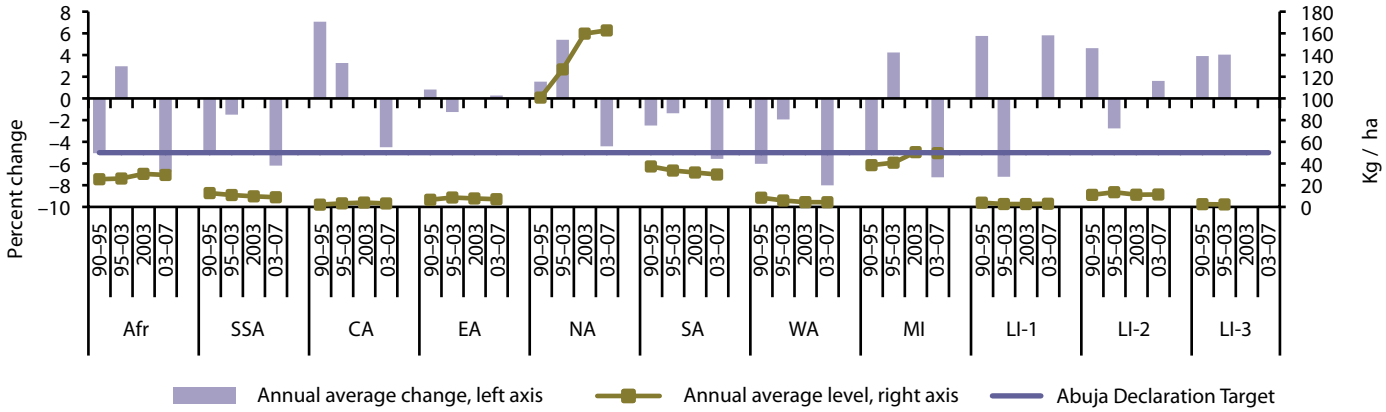
The agricultural trade balance, measured by the ratio of the value of total agricultural exports to imports, has been falling continuously, particularly in SSA and its subregions (Figure 18). Central Africa deepened its status as a net importer of agricultural products (ratio of 1.0 in 1990–95 to 0.6 in 2003–07), and the other three subregions of SSA went from being net exporters prior to 2003 (average ratio of 1.24) to net importers after 2003 (average ratio of 0.96). Only northern Africa seems

FIGURE 15—CEREAL YIELDS (TONS PER HECTARE)



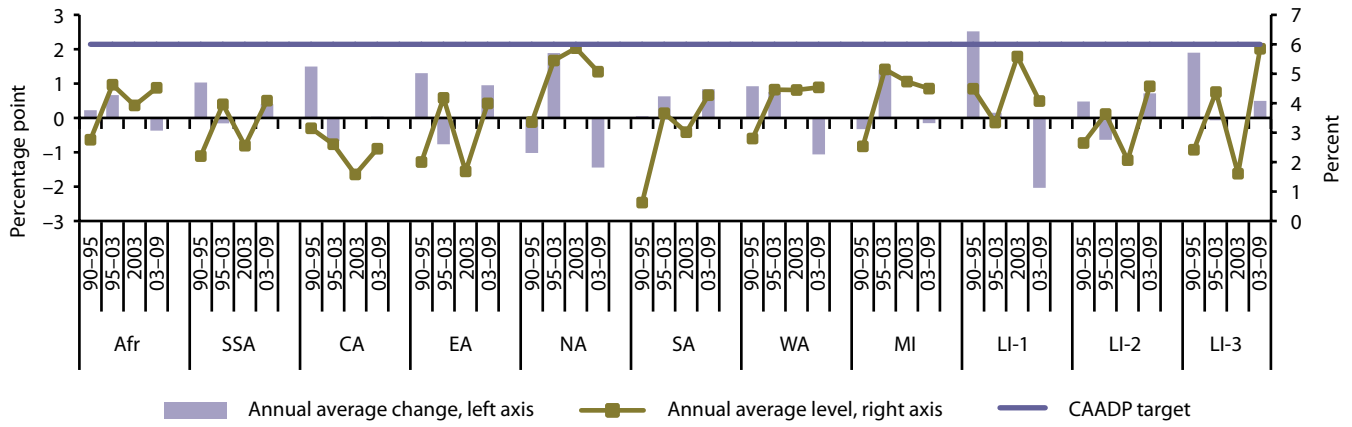
Source: Authors' calculation based on FAO 2010.

FIGURE 16—TOTAL FERTILIZER USE (KILOGRAMS PER HECTARE)



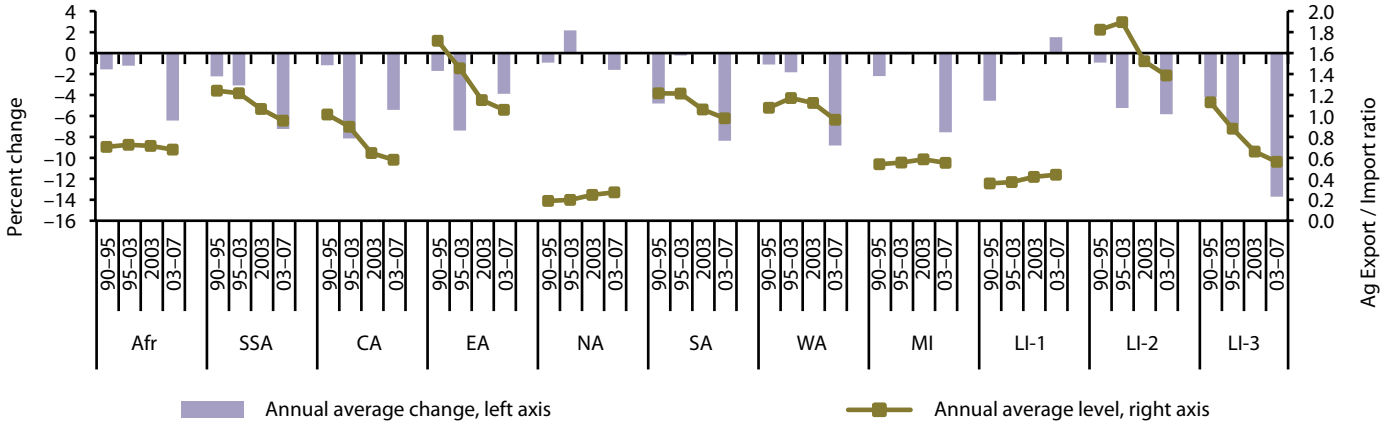
Source: Authors' calculation based on World Bank 2010b.

FIGURE 17—AGRICULTURE VALUE ADDED (ANNUAL PERCENT GROWTH)



Source: Authors' calculation based on World Bank 2010b and UNSD 2010.

FIGURE 18—RATIO OF VALUE OF TOTAL AGRICULTURAL EXPORTS TO VALUE OF TOTAL AGRICULTURAL IMPORTS



Source: Authors' calculation based on FAO 2010.

to be increasing the value of its exports relative to imports—albeit from a rather deep net-importer situation, with a ratio rising from 0.2 to 0.3. While currently available data only displays trends through 2007, it is likely that, due to the recent food crisis and the rise in import commodity prices over the past three years, the export-import ratio has continued to fall.

For the economic subgroups, both middle-income (MI) and mineral-rich (LI-1) countries have generally been net importers of agricultural goods (with ratios in the range of 0.4 and 0.5). This is not surprising, given that agriculture plays a smaller role in the economy of these two subgroups (Figure 18), where revenue and growth come from other exports or sectors and can be used to purchase agricultural goods. Nevertheless, the ratio of exports to imports seems to be increasing over time.

For the countries that are more reliant on agriculture (LI-2), however, the ratio has been falling continuously. For these countries, the primary macroeconomic contribution of tradable agriculture to aggregate growth is foreign exchange, which allows imports of inputs and capital goods (World Bank 2007).

The increasing value of imports relative to exports in Africa is the result of a number of factors. Africa continues to offer mostly unprocessed produce, for which global prices are static or falling. Furthermore, stagnant productivity levels throughout Africa have reduced the competiveness of African commodities on the international market. Also, African farmers face critical barriers in accessing markets that are typically distant and entail high transportation costs; price transmission in these cases is poor as well, reducing farmers' incentives to produce. These combined factors translate into low output levels even at high levels of investment (that is, they imply low benefit-cost ratios), further reducing incentives to produce and hurting terms of trade (AU/NEPAD 2003).

Finally, policies, currency markets, and trade agreements will all influence the import and export trends of a given country. Coordinating these factors to favor African agricultural exports poses a challenge—as the repeated failure of the Doha round demonstrates (The Economist 2008). However, some efforts to improve trade on the continent are already underway: the COMESA, EAC, and ECOWAS RECs have all made progress in developing customs unions and/or regional integration, reducing tariffs, and generally promoting both intra- and extra-regional trade of agricultural and other commodities (Nin Pratt and Yu 2008; see also COMESA.int, EAC.int, and ECOWAS.int).

Poverty and Hunger Outcomes

This section assesses trends in poverty and hunger reduction outcomes within the context of the first Millennium Development Goal (MDG1), which aims to halve 1990 poverty and hunger rates by 2015. Achievement of MDG1 is a stated target of countries implementing CAADP, based on the expectation that increased agricultural growth will ultimately result in reduced incidence of poverty, hunger, and food insecurity.

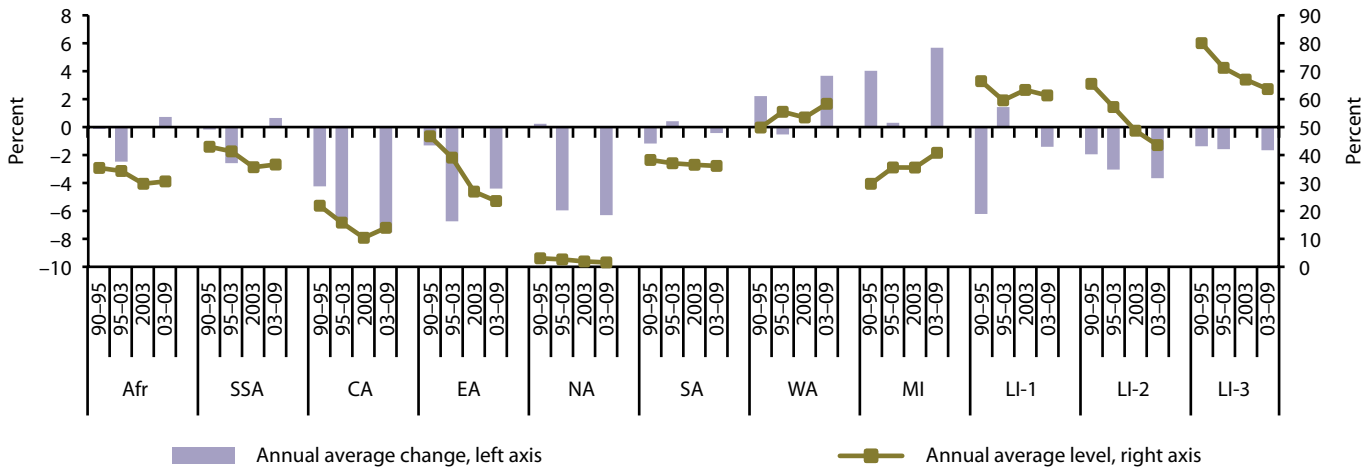
Poverty trends

Africa as a whole has experienced a moderate decline in the rate of poverty since 1990, falling from an average rate of 47.0 percent in 1990–95 to 46.5 percent in 1995–2003 and 44.3 percent in 2003–09 (Figure 19).[15] This trend is repeated at different intensities in each of the geographic subregions, with the exception of western Africa, which experienced an increase. The most significant average rates of decrease in poverty have taken place in eastern, central, and northern Africa, while the smallest changes occurred in southern Africa. The significant drops in poverty rates in eastern and central Africa are noteworthy because these two regions had initially higher levels of poverty. (Northern Africa, in contrast, already had very low rates, at 4.0, 3.6, and 2.3 percent in 1990–95, 1995–2003, and 2003–09 respectively.) The poverty rate in eastern Africa fell from an average of 62.8 percent in 1990–95 to 54.4 percent in 1995–2003 and 38.6 percent in 2003–09, and was largely driven by declines in Ethiopia and Kenya. For central Africa, the rate fell from 72.7 percent in 1990–95 to 61.8 percent in 1995–2003 and 68.8 percent in 2003–09. These declines were mostly driven by declining rates in Cameroon and the Central African Republic. The poverty rates in southern Africa seem to have stagnated, falling marginally from 51.4 percent in 1990–95 to 49.1 percent in 1995–2003 and 48.4 percent in 2003–09.

The upward trends experienced in western Africa are troubling—at 53.4, 59.1, and 62.2 percent in 1990–95, 1995–2003, and 2003–09—especially since the initial rate is high and it is the only subregion to experience an increase in poverty since 2003. Many countries in western Africa did experience declining poverty rates; however, these positive

[15] This section defines poverty level according to the international poverty rate ($1.25/day PPP).

FIGURE 19—POVERTY HEADCOUNT RATIO AT $1.25/DAY (PPP), % OF POPULATION



Source: Authors' calculation based on World Bank 2010b.

gains were negated by increases in poverty in Cote d'Ivoire, Guinea Bissau, and Nigeria.

At the continental and regional levels, there has been an overall decline in the poverty rate. Nevertheless, the absolute number of people living in poverty has increased, since population growth has outpaced poverty reduction rates. This growth in absolute poverty has been largely driven by western and southern Africa, where populations grew at an annual average rate of over 2 percent since 1990 (based on authors' calculations using World Bank 2010b), while the poverty rate declined in western Africa by 2.2, –0.7, and 4.1 percent in 1990–95, 1995–2003, and 2003–09, and in southern Africa by –1.3, 0.0, and –0.5 percent in the same periods (see bar charts in Figure 19).

The poverty trends by economic classification (Figure 19) offer insight into the relationship between agriculture and poverty reduction in Africa. The less favorable agriculture economies (LI-3) have the highest average poverty rates, although poverty has slowly declined over time. In contrast, middle-income (MI) countries, have the lowest poverty rates, but the rates have increased over time. Among the more favorable agricultural economies (LI-1 and LI-2), those countries with non-agricultural growth options (the mineral-rich countries, LI-1) have experienced only a marginal decline in poverty over time, while those without other growth options have experienced substantial reduction in poverty.

The analysis at the aggregated levels masks country-level differences. For example, although western Africa experienced both increasing poverty rates and increasing absolute poverty over the reported period, this region contains the highest number of countries that are on track to halving poverty by 2015, as discussed below. Still, the overall picture and outlook for poverty reduction on the continent remains positive, especially when compared to other world regions (see UN 2010 and ODI 2010). The absolute decline in poverty in Africa has not been as substantial as in other world regions, largely because of the continent's initially higher levels of income poverty; nevertheless, six out of the top ten performing countries worldwide are in Africa (ODI 2010).[16]

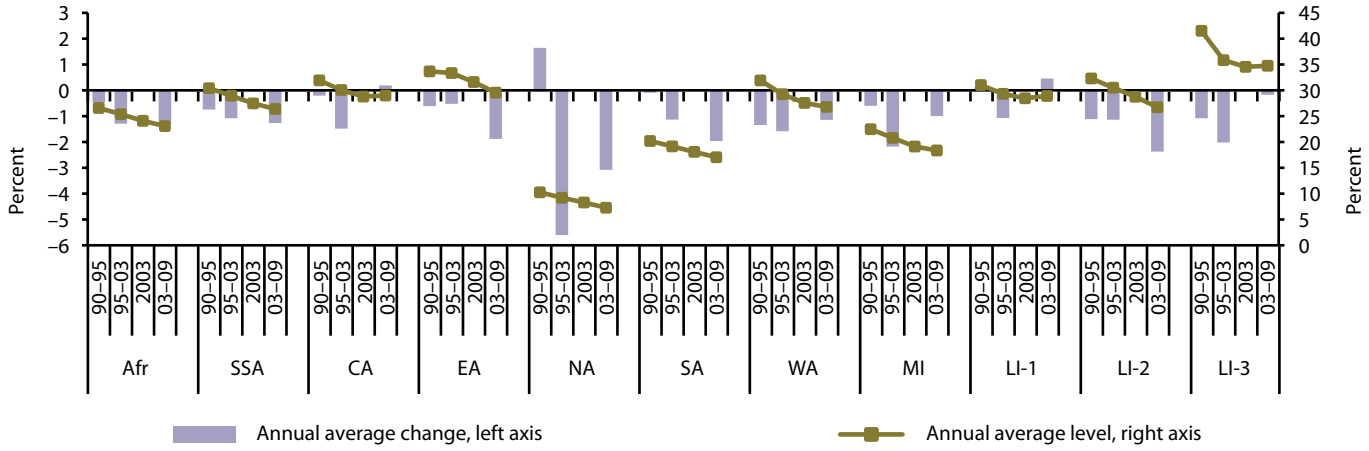
Hunger Trends

The second component of MDG1 is halving hunger, officially measured by the prevalence of child malnutrition (UNSD (Metadata) 2010).[17] For more robust analysis, the Global Hunger Index (GHI) is also considered here. The GHI combines two hunger indicators (child and adult malnutrition) together with the child mortality rate, to reflect the multidimensional causes and manifestations of hunger including inequitable resource allocation between and within households (DWHH /IFPRI 2006).

The child malnutrition trends are clear-cut and consistent, showing a moderate decrease over time across all the geographic and economic categories analyzed here. For Africa as a whole, the average level of child malnutrition prevalence declined from 27.0 percent in 1990–95 to 25.6 percent in 1995–2003 and to 23.4 percent in 2003–09 (Figure 20). In SSA, the average prevalence level declined from 31.0 percent in 1990–95 to 29.2 percent in 1995–2003 and 26.6 percent in 2003–09.

Average prevalence levels of child malnutrition are highest in eastern and central Africa, and almost as high in western Africa and SSA. Eastern Africa's levels were 35.1, 33.8, and 29.7 percent, in 1990–95, 1995–2003, and 2003–09 respectively; central Africa shows child malnutrition levels at 32.4, 30.4, and 29.4 percent for those periods. In each geographic region, the aggregate trends were driven by moderate declines in child malnutrition prevalence at the country level, although a few exceptional cases show a notably large decline or an increase: large average annual declines occurred in Equatorial Guinea and Sao Tome and Principe in central Africa; small increases are seen in Burkina Faso, Guinea, and Togo in western Africa, and South Africa in the southern

FIGURE 20—PREVALENCE OF CHILD MALNUTRITION (PERCENT)



Source: Authors' calculation based on UNSD 2010 and World Bank 2010b.

[16] The ODI (Overseas Development Institute) "Report Card" uses a measure of absolute poverty reduction that tracks progress without regard to the initial level.

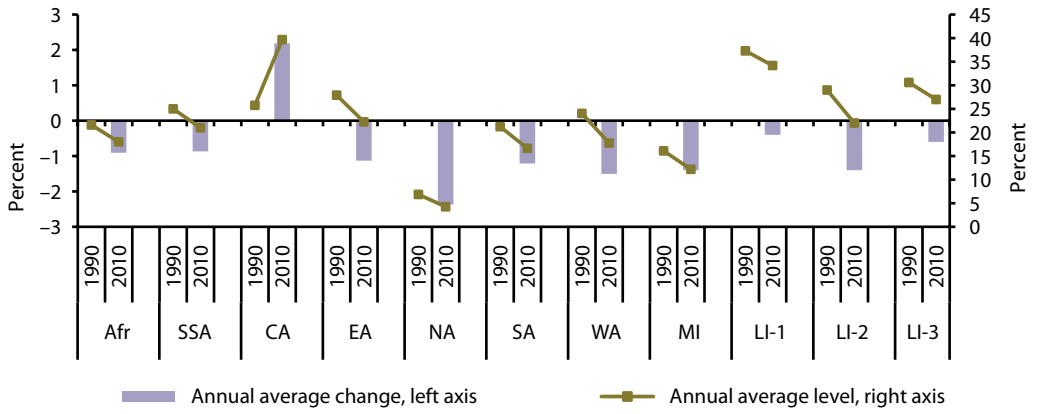
[17] The prevalence of child malnutrition is defined here as the proportion of children under the age of five who are malnourished according to the anthropometric measure of weight for age—that is, those who are more than two standard deviations below the mean. Details regarding other indicators, including adult undernourishment, are available in the appendix.

Africa region. The most dramatic average annual change occurred in northern Africa, particularly in the period 1995–2003, –0.56 percent per year. The average prevalence level declined from 10.3 percent in 1990–95 to 9.2 percent in 1995–2003 and to 7.6 percent in 2003–09. This aggregate decline was driven by declines in every member country except Morocco, which saw an average annual increase of around 1.0 percent over the entire period.

Among the economic categories, the highest average prevalence rate of child malnutrition is associated with the less-favorable agriculture countries (LI-3) and the lowest prevalence rate with the middle-income countries (MI), although there was very little decline in child malnutrition in the former group after 2003. The more favorable agriculture economies show an initial average prevalence of 31 to 32 percent (1990–95); within that group, those with other growth options (the mineral-rich countries, LI-1) experienced only a marginal decline over time, while those without other growth options experienced substantial reduction.

The Global Hunger Index (GHI)—an index that combines child malnutrition with adult malnutrition and the child mortality rate—shows only a slight reduction in hunger on the African continent as a whole, decreasing by an annual average of 0.9 percent over a 20-year period from the "alarming" value of 21.6 in 1990 to the "serious" value of 18 in 2010.[18] The GHI trends (Figure 21) generally shadow those of the child malnutrition indicator (Figure 20), with some differences. A notable difference is the sharp rise in central Africa GHI, absent from the child malnutrition data. Additionally, the LI-1 and LI-3 groups show reverse tendencies in the two measures. For the child malnutrition indicator, the mineral-rich, LI-1 countries appear to fare better, while countries with less favorable agriculture conditions (LI-3) fare worst, with high levels (34.8 percent) and only a slight decrease (0.2 percent) in the latest period. In the GHI index, however—combining child and adult measures—LI-3 countries fare better while LI-1 countries fare worst, with high levels (34.2) and a slower decrease (0.4 percent). According to the GHI, hunger in central Africa has risen by an annual average of 2.2 percent from an already high level of 25.7 in 1990 to the "extremely alarming" rate of 39.7 in 2010, a rise driven almost entirely by the DRC. Among the

FIGURE 21—GLOBAL HUNGER INDEX (GHI)



Source: Authors' calculation based on von Grebmer et al. 2010.

[18] The index varies between the best possible score of 0 and the worst possible score of 100, with scores above 10, 20, and 30 representing serious, alarming, and extremely alarming hunger, respectively (DWHH /IFPRI 2006).

economic groups, while the LI-1, LI-2, and LI-3 regions have seen annual average reductions in hunger from 0.4 to 1.4 percent, all three remain in the "alarming" to "extremely alarming" hunger range.

Which regions and countries are on track to meet MDG1?

Extrapolating from their current annual average rates of change, we projected the values of the poverty and child malnutrition indicators to 2015 and compared them to their 1990 values, to assess which regions and countries are likely to be on track to meet MDG1. To assess the robustness of the analysis, we use two different annual average rates of change: (1) the average rate of change between the earliest data point in each country's series (usually around 1990–1992) to the most recent data point in each country's series (usually around 2002–2007), to capture fluctuations over the long term; and (2) the average rate of change covering the gap between the two most recent data points (usually between the early 2000s and the mid- or late 2000s), to capture the rate of change over the more recent term. We include only countries and regions with enough data points for reliable analysis.[19] For the analysis using the long-term average rate of change, we analyzed 37 countries for the poverty indicator and 48 for the hunger indicator; for the analysis using the short-term average rate of change, we analyzed 27 and 39 countries, respectively.

Since MDG1 consists of two indicators (poverty and hunger), we do an analysis for each individual indicator separately and then for both indicators concurrently. Only regions and countries that are on track to meet both the poverty and the hunger targets are considered to be on track to meeting MDG1. However, the concurrent comparison of the two indicators is problematic due to data limitations, as some regions and countries that are assessed for one indicator may not have enough data available to be assessed for the other indicator. The results are shown in Figure 22, with notes showing such anomalies.

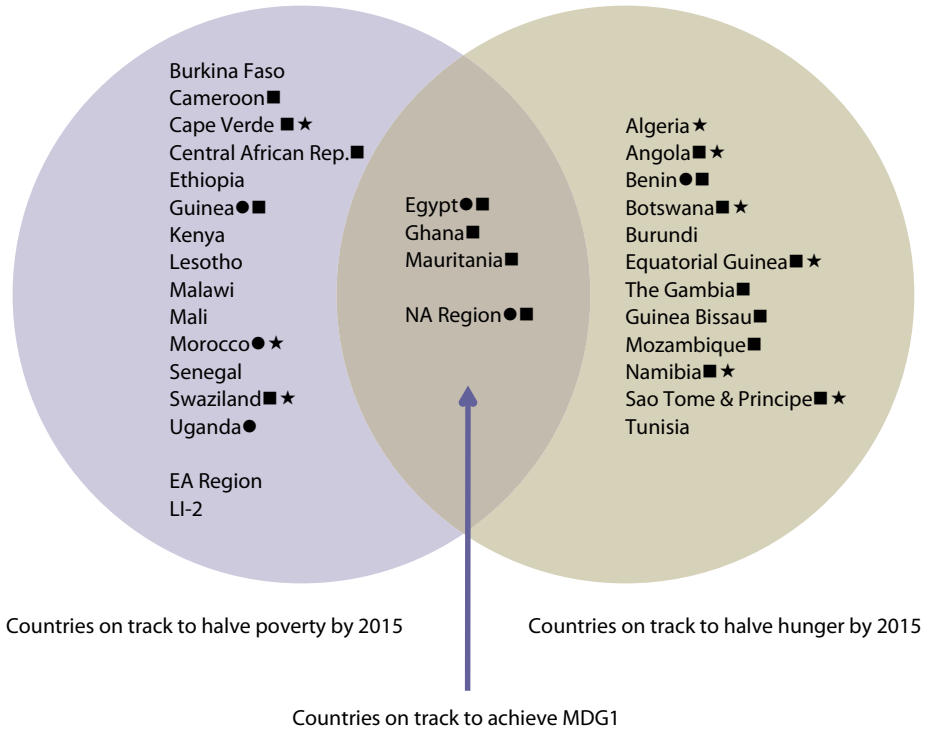
Using long-term average rate of change. Neither Africa as a whole nor SSA is on track to meet either of the MDG1 targets. While two of the five geographical regions, eastern and northern Africa, are on track to halve poverty, only northern Africa is on track to halve hunger (and only by allowing a margin of error of 1 percentage point of the benchmark rate). This makes northern Africa the only geographic region likely to meet MDG1. Of the economic categories, only the group with more favorable agriculture conditions (LI-2) is on track to meet the poverty target; the rest fall short of both the poverty and hunger targets.

Analysis of the individual countries shows that 14 are on track to halve poverty by 2015 while 12 are track to halve hunger. Nine of these countries are in western Africa (five on track for the poverty reduction target and four on track for the hunger reduction target). Three countries are on track to meet both targets of MDG1—Egypt, Ghana, and Mauritania. (Note that Egypt's estimated poverty and hunger rates for 2015 fall slightly above the targets but are within the 1 percentage point margin of error allowed in this analysis.)

Using more recent average rate of change. Using the most recent average rate of change, some countries that appeared to be on track to meet

[19] Countries excluded from poverty analysis are: Algeria, Angola, Botswana, Chad, Comoros, Republic of Congo, Democratic Republic of Congo, Djibouti, Equatorial Guinea, Gabon, Liberia, Libya, Namibia, Sao Tome and Principe, and Sudan. Countries excluded from hunger analysis are: Cape Verde, Gabon, Mauritius, Seychelles, and Swaziland.

FIGURE 22—REGIONS AND COUNTRIES ON TRACK TO MEETING MDG1



Source: Authors' calculation based on UNSD 2010 and World Bank 2010 b.
Notes: Countries are designated "on track" by projection based on the most recent average rate.
● Within 1 percentage point of target.
■ On track using the long-term average method. (Malawi is the only country to only be on track under the more recent term method and not the long-term average method.)
★ Has data availability for one series but not the other.

the MDG1 target under the long-term average method now appear unlikely to meet that target. For these cases, the analysis shows a slower rate of decline in the indicator for more recent times than over the long term, implying that good progress made in the past is being undone. For poverty, this reversal occurred in only one country: Guinea.[20] Conversely, one country—Malawi—that appeared on track to meet the poverty target using the more recent average failed when we applied the long-run average rate of change.

For the hunger target a different pattern emerges. Four countries (Benin, Ghana, Mozambique, and Namibia) showed a slowing decline in hunger reduction in the more recent years. Three countries (Egypt, the Gambia, and Mauritania) in fact showed an increase in hunger in the more recent term. These reversals imply a troubling hunger situation in many countries. Moreover, not a single country or region for which data is available would be on track to meet MDG1 (including both poverty and hunger targets), based on recent performance in hunger reduction. However, these indicators are sparsely measured over the period under consideration, and further research is needed to investigate these trajectories using more data points, as well as methods that take into account other influential factors.

[20] Some countries are dropped from the list because of insufficient data to calculate a more recent average rate of change, reducing the number of countries used in the analysis by 10 for both poverty and hunger. For poverty, the countries analyzed are: Cameroon, Cape Verde, Central African Republic, Djibouti, Mauritius, Seychelles, Sierra Leone, Swaziland, Togo and Tunisia. For hunger, the countries are: Angola, Botswana, Burundi, Republic of Congo, Equatorial Guinea, Guinea Bissau, Libya, Mauritius, Sao Tome and Principe, and Swaziland.

Outlook for CAADP M&E
2011 and Beyond

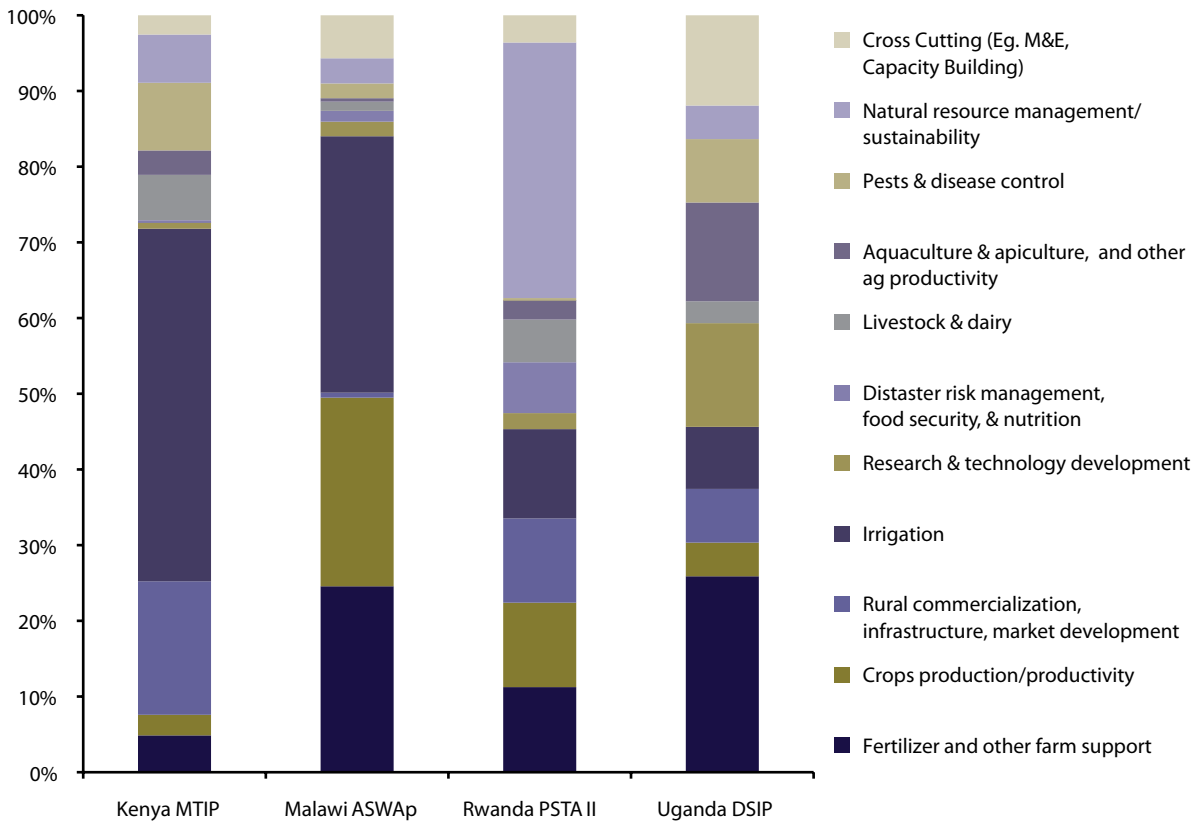
As countries enter the operational stage of CAADP investment program design and execution, a fundamental question for all actors and stakeholders is how to raise and maintain agricultural productivity in a manner that accelerates poverty and hunger reduction across different parts of each country and region, as well as throughout the continent. The evidence, as we have reviewed, suggests that the moderate and slowly growing agricultural productivity across the continent has been driven mostly by reallocation of productive factors (that is, efficiency gains) rather than technological advancement (technical change); see Nin Pratt and Yu 2008. Thus, it is not surprising to see different countries adopting different strategies in their national agricultural investment plans (NAIP), as Figure 23 shows for selected countries. While different climate and natural resource endowments (especially agricultural potential) have a large influence on these strategies, clear differences in investment and development approach can be observed.

For example, Kenya's NAIP favors irrigation and commercialization, while Malawi's favors irrigation, maize, and farm input (particularly fertilizer) support. The NAIPs of Rwanda and Uganda, on the other hand, tend to be more cautious by adopting an even spread, though slightly favoring natural resource management in Malawi and farm support in Uganda (through the national extension program). To help address questions regarding trade-offs between efficiency gains and technical change as well as various investment strategies, and so as to better inform the implementation of country investment plans, the upcoming 2011 Annual Trends and Outlook Report will focus on agricultural productivity, with particular attention to the following areas: assessing why there has not been widespread technical change in Africa; reviewing lessons associated with the efficiency gains in agricultural production already achieved in different parts of Africa; and identifying specific agricultural investment programs that can potentially be scaled up or replicated in different parts of Africa in order to raise and maintain high agricultural productivity.[21]

Another important area in which countries will need support as they enter the operational stage of CAADP investment program design and execution is the design of country-specific or customized M&E for

[21] In fact, each of the annual M&E reports in the future will have a feature topic designed to raise key, and timely, strategic issues.

FIGURE 23—BUDGET ALLOCATION UNDER CAADP INVESTMENT PLANS FOR SELECTED COUNTRIES



Source: Authors' calculation based on national agricultural investment plans: Medium Term Investment Plan (MTIP) of Kenya (ASDS/ MTIP 2010); Agriculture Sector Wide Approach (ASWAp) of Malawi (MoAFS 2010); Strategic Plan for Agricultural Transformation (PSTA II) of Rwanda (MAAR 2009); Development Strategy Investment Plan (DSIP) of Uganda (MAAIF 2010).

major investment programs. The pertinent questions in this area include:

- How effective has the intervention been in raising agricultural growth and reducing poverty?
- What factors have shaped the impacts, and what are the trade-offs or complementarities with other types of interventions?
- What are the projected impacts of the planned investments, and are they compatible with the CAADP and national growth and poverty-reducing targets?
- If planned investments are not on track for these targets, what alternative interventions might lead to greater, more sustainable, and better distributed outcomes?

Answering these questions will require more detailed data collection and analysis associated with implementation of specific investment plans and programs, including establishing quality baselines (see Benin et al. 2010). The establishment of CAADP Country SAKSS Nodes will be very instrumental in mobilizing resources (financial and human) to address such knowledge gaps.

Summary and Conclusions

Since 2003, when CAADP was initiated with a participatory process of planning, implementation and review, have all the actors and stakeholders involved made good on their commitments? Are countries on track to achieve their growth and poverty-reduction targets? What has been achieved so far? What factors have shaped these achievements? Could better outcomes have been achieved with the same level of resources? How? These are some key knowledge gaps that this report has attempted to fill. Answering these questions is important, particularly to establish the baseline situation in 2010, as countries enter the operational stage of CAADP investment program design and execution in 2011.

Looking at the context within which the CAADP and other processes for growth and development have been taking place, the evidence suggests that the impressive macroeconomic performance witnessed on the African continent in the 1990s—arising from reduction in inflation and significant improvement of the debt-to-GDP ratio, among other factors—has slowed down as the 2000s have progressed. Given the reliance on aid, a major shift has been the increasing pressure to ensure aid effectiveness and accountability, including harmonization among donors, alignment with recipient countries' objectives, and more attention to monitoring and evaluation with emphasis on results. Such dynamics and commitments will be important for the success of CAADP, to the extent that they enhance the effectiveness of agricultural and rural polices and investments by governments and the private sector in a sustainable manner. For agriculture, we find that while total ODA disbursements to the sector have increased in recent years (growing by at about 10 percent per year), the shares remain quite low when compared to other sectors, at an average of 4.1 and 4.2 percent for Africa and SSA respectively.

On the CAADP process, there was a glaring stall after Rwanda signed its compact in 2007. It was not until 2009 and the first half of 2010 that the continent witnessed renewed momentum in the process. As of early 2011, 25 countries and one regional economic community, ECOWAS, have completed roundtables and signed compacts. Seventeen of the countries have moved on to develop their agricultural investment plans, and five have been awarded GAFSP funding totaling $223.5 million. Overall, ECOWAS and its member states have outperformed the others in the region, accounting for 13 of the 24 countries that have signed compacts.

Have these achievements brought countries closer to meeting significant targets?

- The Maputo Declaration agricultural spending target of ten percent of total expenditures

- The agricultural growth target of six percent AgGDP growth per year
- The MDG1 poverty and hunger reduction target, of slashing 1992 incidence levels by one-half in 2015

This report does not examine cause-effect relationships between the CAADP process and these outcome indicators, as they lie outside its scope. Nevertheless, certain patterns can be observed.

While absolute levels of *agriculture spending* have increased substantially in most parts of Africa, the amounts spent relative to total national expenditures have declined in most parts compared to the situation in the 1990s. For Africa as a whole, the share of agriculture spending barely surpassed 6 percent. Only six countries stand out as having achieved the ten percent target: Burkina Faso, Ethiopia, Guinea, Mali, Niger, and Senegal.

For Africa as a whole, the annual average AgGDP growth rates were 5.6, 4.9, and 4.2 percent in 1990–95, 1995–03, and 2003–09, respectively. Other evidence reviewed (Nin Pratt and Yu 2008) suggests that these numbers reflect the moderate and slowly growing agricultural productivity across the continent, which has been driven mostly by reallocation of productive factors (efficiency gains) rather than technological advancement (technical change).

Given the dominance of the agricultural sector in the economies and livelihoods of most countries on the continent, it is thus not surprising that only three countries—Egypt, Ghana, and Mauritania—are on track to meet *MDG1 targets*. However, there are several countries on track to meet one of the MDG1 targets: 14 on track to halve poverty levels, and 12 on track to halve hunger.

2011 is expected to mark the beginning of CAADP investment program design and execution. The next level of M&E should be launched as soon as possible, to establish reliable data to answer the next level of questions associated with the effectiveness of CAADP programs. This means having country-specific or customized M&E approaches associated with major investment programs; the establishment of country SAKSS nodes should accordingly be a priority. The country SAKSS will be instrumental in mobilizing resources (financial and human) to undertake these activities.

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Annex A: Enabling Environment

TABLE A:1—TOTAL ODA PER CAPITA, GROSS DISBURSEMENTS (2008 USD)

Region/Country	Annual average (1990–1995)	Annual average % change (1990–1995)	Annual average (1995–2003)	Annual average % change (1995–2003)	2003	Annual average (2003–2009)	Annual average % change (2003–2009)
Africa	58.89	–10.76	38.23	0.73	43.64	48.70	–10.34
SSA	53.55	–7.13	38.42	1.27	45.75	53.05	–9.57
Central	48.47	–11.56	39.42	9.14	68.03	58.58	–14.36
Burundi	73.99	–2.76	36.59	2.63	55.20	74.22	10.94
Cameroon	76.90	–6.20	61.60	5.02	76.58	86.34	–15.89
Central African Rep.	93.31	–10.09	46.81	–13.29	27.83	55.67	30.25
Chad	58.67	–10.57	41.91	–2.78	44.42	39.55	–12.49
Congo, Dem. Rep.	17.47	–32.14	24.34	38.48	72.70	45.41	–23.20
Congo, Rep.	121.18	–1.62	87.85	–17.19	47.59	144.80	–8.59
Equatorial Guinea	198.42	–18.00	88.63	–6.38	82.95	64.27	–24.51
Gabon	249.23	2.80	157.57	–6.98	129.85	84.51	–30.19
Sao Tome & Principe	736.55	0.70	478.95	–7.12	345.18	356.23	–19.45
Eastern	52.22	–9.80	35.37	1.81	41.56	52.33	–6.35
Comoros	161.47	–9.88	93.96	–4.57	78.24	59.98	–18.95
Djibouti	351.47	–11.49	180.78	–5.38	141.84	130.93	–8.48
Eritrea	29.59	36.09	80.28	7.07	89.33	54.07	–30.94
Ethiopia	30.98	–7.16	21.63	6.35	30.50	39.65	–1.13
Kenya	60.43	–18.48	29.12	–3.31	26.39	30.85	–2.71
Madagascar	54.45	–14.98	49.89	–1.62	61.95	75.36	–24.15
Mauritius	99.14	–15.53	74.62	–4.68	62.92	65.20	–21.38
Rwanda	115.22	23.45	86.37	–10.15	64.95	94.17	1.02
Seychelles	516.30	–17.55	329.87	–8.94	173.76	157.90	–39.47
Somalia	112.26	–5.64	28.22	3.95	33.72	41.37	–4.99
Sudan	30.76	–24.16	12.02	8.05	23.40	41.36	–9.83
Tanzania	64.88	–11.54	51.69	6.54	63.68	72.88	–7.20

TABLE A:1—CONTINUED

Region/Country	Annual average (1990–1995)	Annual average % change (1990–1995)	Annual average (1995–2003)	Annual average % change (1995–2003)	2003	Annual average (2003–2009)	Annual average % change (2003–2009)
Uganda	56.23	–1.58	54.13	0.09	54.31	71.37	–7.44
Northern	79.96	–20.28	37.24	–2.33	33.40	27.67	–19.70
Algeria	22.66	–2.78	16.23	–0.62	16.29	12.85	–25.63
Egypt	116.24	–24.35	37.94	–7.35	28.43	21.34	–20.71
Libya	1.77	–14.29	0.74	3.05	0.00	3.62	–32.29
Mauritania	193.43	–2.73	166.33	1.98	168.32	145.44	–15.93
Morocco	59.28	–14.07	40.26	–0.49	39.09	40.51	–16.02
Tunisia	77.57	–16.52	67.10	6.38	70.39	59.94	–20.17
Southern	88.37	–9.64	54.85	–1.47	56.84	56.10	–11.92
Angola	46.93	6.10	42.97	–3.87	58.06	34.49	–27.71
Botswana	137.10	–12.99	66.81	–14.25	38.30	90.49	–7.23
Lesotho	123.36	–6.27	67.54	–5.00	68.01	58.19	–6.87
Malawi	77.41	–7.94	59.10	–1.06	53.53	87.88	–7.60
Mozambique	133.92	–3.04	109.56	1.91	117.31	88.56	–7.64
Namibia	153.67	–2.22	140.43	–4.55	115.83	94.06	–8.45
South Africa	6.25	9.90	17.30	4.01	18.45	18.03	–11.36
Swaziland	102.83	–1.90	59.74	–5.39	47.32	51.96	–6.21
Zambia	190.98	4.67	128.65	–1.53	140.35	160.81	–20.62
Zimbabwe	73.74	4.19	38.08	–12.95	22.57	28.95	–1.76
Western	43.76	–3.58	32.71	–1.94	35.71	50.15	–7.86
Benin	82.72	–7.01	63.60	0.25	65.78	81.48	–5.20
Burkina Faso	72.39	0.62	60.86	0.57	65.06	76.95	–4.63
Cape Verde	470.61	–3.47	414.48	–1.27	405.32	380.01	–15.85
Cote d'Ivoire	111.88	8.00	74.44	–10.36	59.98	24.03	–0.50
Gambia, The	143.77	–17.19	66.16	0.28	67.82	78.46	1.56
Ghana	70.35	–11.94	59.07	1.12	84.58	102.49	–14.53
Guinea	89.35	–2.52	61.18	–5.34	49.68	36.14	–19.92
Guinea-Bissau	174.77	–2.12	125.41	–5.84	104.21	83.95	–14.59
Liberia	85.50	–6.58	55.42	–12.01	54.85	138.12	9.00

TABLE A:1—CONTINUED

Region/Country	Annual average (1990–1995)	Annual average % change (1990–1995)	Annual average (1995–2003)	Annual average % change (1995–2003)	2003	Annual average (2003–2009)	Annual average % change (2003–2009)
Mali	79.93	–3.15	70.64	0.30	79.10	98.57	–7.32
Niger	65.54	–9.41	43.44	0.71	53.06	59.13	–17.37
Nigeria	3.82	–10.46	2.73	2.72	4.06	26.86	6.68
Senegal	139.13	–9.17	94.33	–4.23	100.30	118.18	–12.42
Sierra Leone	69.95	30.01	79.73	12.20	116.86	101.80	–16.83
Togo	72.14	–12.96	37.07	–14.94	18.74	27.80	14.93
Middle-income countries	53.26	–15.53	28.45	–2.74	28.30	33.97	–13.08
Mineral-rich countries	56.28	–5.25	46.66	9.18	78.75	66.06	–16.89
More favorable agricultural conditions	62.61	–8.35	46.68	1.00	52.24	61.14	–6.83
Less favorable agricultural conditions	87.11	–1.34	58.90	–0.84	63.49	70.60	–5.77

Source: Authors' calculation based on OECD 2010 and World Bank 2010b.
Notes: ODA data not available for Eritrea and South Africa 1990–1992; data not available for Libya from 2000–2004.

TABLE A:2—SHARE OF AGRICULTURE OFFICIAL DEVELOPMENT ASSISTANCE (ODA) IN TOTAL ODA AND TOTAL SECTOR ALLOCATABLE ODA (%)

	Share in total ODA			Share in total sector allocatable ODA		
Region/Country	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Africa	3.4	4.1	15.4	6.2	6.8	6.7
SSA	3.4	4.2	15.9	6.5	7.2	6.4
Central	1.6	1.6	14.4	4.1	4.1	–1.8
Burundi	1.8	3.1	9.5	4.0	7.1	17.4
Cameroon	2.5	1.9	–2.2	6.7	6.0	–12.4
Central African Rep.	1.6	2.1	–27.6	2.2	4.0	–9.1
Chad	7.5	4.6	–12.9	10.2	7.4	–9.4
Congo, Dem. Rep.	0.3	0.9	64.5	1.1	1.6	17.9
Congo, Rep.	0.8	1.2	27.9	1.4	2.1	37.4
Equatorial Guinea	1.1	1.0	–24.6	1.5	1.3	–29.1

TABLE A:2—CONTINUED

	Share in total ODA			Share in total sector allocatable ODA		
Region/Country	**2003**	**Annual average level (2003–2009)**	**Annual average % change (2003–2009)**	**2003**	**Annual average level (2003–2009)**	**Annual average % change (2003–2009)**
Gabon	1.0	4.7	54.4	1.5	5.2	34.8
Sao Tome & Principe	6.4	4.4	–3.7	7.9	5.1	–1.7
Eastern	4.2	5.4	14.5	7.1	8.4	8.0
Comoros	5.2	3.2	–27.7	6.3	4.0	–28.4
Djibouti	0.5	0.4	–25.8	0.6	0.5	–18.9
Eritrea	6.6	3.6	–24.9	12.1	6.8	–33.3
Ethiopia	4.4	6.4	15.9	7.8	9.1	4.6
Kenya	5.9	6.7	10.8	7.9	8.4	8.1
Madagascar	6.8	6.0	5.3	11.1	9.5	–4.6
Mauritius	6.5	5.2	–7.8	6.7	8.1	14.4
Rwanda	3.0	3.9	14.7	4.7	5.9	8.0
Seychelles	6.7	6.8	5.8	7.2	7.9	10.4
Somalia	0.4	0.6	–2.8	1.6	2.2	–2.4
Sudan	1.5	0.6	–35.1	5.9	2.2	–42.8
Tanzania	4.1	5.6	10.8	6.8	8.8	7.9
Uganda	3.5	6.3	19.6	5.3	9.0	14.7
Northern	3.0	3.7	10.2	4.6	4.5	5.6
Algeria	1.1	0.9	–8.6	1.5	1.1	–12.9
Egypt	2.9	4.8	19.6	4.6	6.4	15.9
Libya		15.5	–48.1		16.5	–48.8
Mauritania	7.8	8.6	7.4	14.1	13.1	–0.7
Morocco	1.8	1.8	–3.5	2.4	1.9	–5.0
Tunisia	3.8	2.5	–12.3	5.5	3.2	–16.6
Southern	2.7	3.7	9.7	4.6	5.7	5.1
Angola	1.0	2.8	46.1	2.6	3.7	17.2
Botswana	0.7	2.1	15.3	0.9	2.2	20.6
Lesotho	4.7	1.7	–36.7	5.6	2.0	–37.8
Malawi	6.0	7.1	1.3	8.2	12.2	1.5
Mozambique	2.5	4.5	13.7	4.1	6.5	13.1

TABLE A:2—CONTINUED

	Share in total ODA			Share in total sector allocatable ODA		
Region/Country	**2003**	**Annual average level (2003–2009)**	**Annual average % change (2003–2009)**	**2003**	**Annual average level (2003–2009)**	**Annual average % change (2003–2009)**
Namibia	4.0	3.5	–13.5	4.4	3.7	–14.7
South Africa	1.9	1.7	–9.5	2.1	1.8	–10.7
Swaziland	7.9	8.6	–20.8	9.6	10.3	–22.3
Zambia	2.9	3.5	15.3	4.8	6.1	5.3
Zimbabwe	4.1	3.5	2.5	6.6	5.8	6.1
Western	4.8	4.6	11.6	8.3	7.7	3.2
Benin	3.7	4.2	12.9	5.2	6.0	8.3
Burkina Faso	8.3	8.9	8.0	12.3	12.5	5.2
Cape Verde	1.0	1.6	33.9	1.2	2.1	35.8
Cote d'Ivoire	4.1	5.4	35.4	13.4	7.9	16.1
Gambia, The	11.6	8.8	–6.9	13.9	11.0	2.0
Ghana	3.2	4.5	15.2	6.1	7.4	4.3
Guinea	4.5	4.8	10.4	6.5	6.5	9.4
Guinea-Bissau	0.6	2.4	67.1	1.0	3.3	48.9
Liberia	0.03	0.9	137.0	0.2	1.5	104.4
Mali	9.1	10.3	11.0	13.3	14.3	4.9
Niger	6.7	7.1	3.6	12.9	12.7	–7.5
Nigeria	1.4	1.6	18.0	1.6	2.7	10.3
Senegal	6.1	5.5	5.4	8.3	7.5	0.2
Sierra Leone	0.8	2.6	43.0	1.5	3.4	35.2
Togo	3.4	2.6	–13.8	4.8	3.6	–12.0
Middle-income countries	2.8	2.5	11.5	4.8	4.0	3.1
Mineral-rich countries	1.2	1.6	24.2	3.1	3.5	4.1
More favorable agriculture conditions	4.2	5.9	14.2	7.0	8.9	8.8
Less favorable agriculture conditions	6.0	5.6	2.4	10.2	10.2	0.5

Source: Authors' calculation based on OECD 2010.
Notes: Both *agriculture ODA* and *total sector allocatable ODA* are based on gross disbursements, for which data are available starting from 2003. *Total sector allocatable ODA* is *total ODA* minus *total unallocatable ODA*, which includes commodity aid and general program assistance, debt programs, humanitarian aid, administrative costs, funds to NGOs, refugee programs, and other unallocatable aid. Blank cells indicate missing values.

TABLE A:3—SHARE OF EMERGENCY FOOD AID IN TOTAL ODA (%)

Region/Country	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Africa	3.8	4.0	–16.3
SSA	4.0	4.2	–17.3
Central	1.7	2.7	4.4
Burundi	7.5	7.0	–34.9
Cameroon	0.0	0.2	
Central African Rep.	1.0	3.3	60.4
Chad	2.4	9.1	43.8
Congo, Dem. Rep.	1.8	3.4	10.3
Congo, Rep.	1.5	0.5	–22.3
Equatorial Guinea			
Gabon			
Sao Tome & Principe			
Eastern	8.8	9.3	–25.6
Comoros			
Djibouti	2.3	3.2	–15.1
Eritrea	19.6	14.7	–52.9
Ethiopia	17.8	15.1	–42.1
Kenya	3.4	6.9	–0.1
Madagascar	0.3	0.5	10.7
Mauritius			
Rwanda	1.3	1.0	–13.9
Seychelles			
Somalia	12.0	18.8	0.1
Sudan	32.5	27.9	–18.7
Tanzania	1.0	1.0	–12.8
Uganda	5.3	4.7	–31.9
Northern	0.8	1.7	34.9
Algeria	1.3	2.1	29.0

TABLE A:3—CONTINUED

Region/Country	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Egypt			
Libya			
Mauritania	2.3	3.3	–6.3
Morocco	<0.01	<0.01	–15.8
Tunisia			
Southern	3.1	2.2	–12.5
Angola	17.0	7.0	–64.5
Botswana			
Lesotho	0.8	3.6	34.9
Malawi	1.1	0.7	–6.8
Mozambique	0.1	0.3	84.3
Namibia	0.1	0.3	
South Africa	0.3	0.1	–21.0
Swaziland	1.7	2.3	
Zambia	1.0	0.4	–16.0
Zimbabwe	13.4	16.8	6.6
Western	1.0	0.8	–15.2
Benin	0.2	0.1	21.7
Burkina Faso	0.1	0.5	41.3
Cape Verde	1.8	1.0	–26.3
Cote d'Ivoire	1.6	2.2	–26.3
Gambia, The	1.9	1.1	
Ghana	0.0	0.1	62.4
Guinea	2.5	2.5	–21.1
Guinea-Bissau	1.0	0.6	16.0
Liberia	12.3	8.9	–37.5
Mali	0.3	0.7	44.7
Niger	0.3	2.8	31.4

TABLE A:3—CONTINUED

Region/Country	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Nigeria			
Senegal	0.2	0.3	3.6
Sierra Leone	5.6	2.5	–30.4
Togo	0.1	0.4	63.5
Middle-income countries	5.0	4.7	–9.5
Mineral-rich countries	2.2	2.2	–3.2
More favorable agriculture conditions	4.1	4.2	–22.7
Less favorable agriculture conditions	4.0	5.5	–14.8

Source: Authors' calculation based on OECD 2010.
Notes: Both *emergency food aid* and *total ODA* are based on gross disbursements, for which data are available starting from 2002. Blank cells indicate missing values.

TABLE A:4—GDP GROWTH (ANNUAL %)

Region/Country	Annual average % growth (1990–1995)	Annual average percentage point change (1990–1995)	Annual average % growth (1995–2003)	Annual average percentage point change (1995–2003)	2003	Annual average % growth (2003–2009)	Annual average percentage point change (2003–2009)
Africa	1.60	0.18	3.63	0.24	4.51	5.03	–0.46
SSA	1.17	0.52	3.55	0.06	4.61	5.00	–0.51
Central	–2.02	1.24	3.17	0.21	5.84	4.74	–0.53
Burundi	–1.41	–2.28	–1.04	0.84	2.69	3.03	0.79
Cameroon	–2.57	1.88	4.40	0.09	3.91	3.22	–0.27
Central African Rep.	0.55	1.87	1.24	–1.85	–2.39	1.13	1.67
Chad	1.34	1.08	5.48	1.69	18.95	9.64	–2.19
Congo, Dem. Rep.	–7.03	1.45	–1.29	0.64	5.30	5.59	–0.52
Congo, Rep.	0.58	0.60	2.84	–0.40	2.97	4.26	1.13
Equatorial Guinea	6.42	2.20	31.86	–0.04	23.81	12.89	–3.23
Gabon	3.47	–0.04	1.26	–0.31	1.18	2.13	–0.57

TABLE A:4—CONTINUED

Region/Country	Annual average % growth (1990–1995)	Annual average percentage point change (1990–1995)	Annual average % growth (1995–2003)	Annual average percentage point change (1995–2003)	2003	Annual average % growth (2003–2009)	Annual average percentage point change (2003–2009)
Sao Tome & Principe							
Eastern	2.45	0.59	4.57	–0.18	4.53	6.48	0.09
Comoros	1.59	–0.30	2.33	–0.14	2.13	3.06	1.63
Djibouti	–3.07	–0.08	0.25	0.84	3.21	4.41	0.30
Eritrea	12.02	–1.73	1.99	–0.69	0.60	0.68	0.61
Ethiopia	1.56	0.68	4.12	–1.04	4.31	9.29	1.81
Kenya	2.04	0.04	2.50	–0.18	2.86	4.46	–0.12
Madagascar	0.29	–0.28	2.67	1.01	0.79	5.52	–1.56
Mauritius	5.27	–0.58	4.62	–0.08	3.84	3.91	–0.25
Rwanda	–3.70	7.52	11.80	–4.37	5.53	6.35	0.83
Seychelles	3.58	–1.56	2.63	–0.63	–2.51	1.17	–0.29
Somalia							
Sudan	3.37	2.29	6.33	0.14	5.87	7.26	–0.53
Tanzania	2.67	–0.70	4.79	0.26	6.55	6.66	–0.03
Uganda	6.95	1.01	6.90	–0.63	6.56	7.80	0.10
Northern	2.24	–0.33	3.74	0.50	4.37	5.06	–0.38
Algeria	0.37	0.60	3.74	0.39	5.60	3.81	–0.80
Egypt	3.79	–0.21	4.42	–0.18	3.22	5.36	0.24
Libya	1.47	0.00	2.05	1.44	5.37	6.44	–1.82
Mauritania	2.42	2.32	3.61	–0.53	3.96	4.63	–1.12
Morocco	1.61	–2.12	3.37	1.61	4.81	5.02	–0.22
Tunisia	4.56	–1.12	4.73	0.40	4.42	5.05	–0.40
Southern	0.75	0.59	3.18	–0.07	3.98	4.23	–0.67
Angola	–3.20	2.14	7.06	–0.89	9.66	12.48	–0.51
Botswana	4.52	–0.47	6.11	0.23	7.07	2.99	–2.05
Lesotho	4.86	–0.49	2.97	0.05	3.38	4.06	–0.30
Malawi	3.88	2.21	3.69	–1.31	2.51	6.96	0.24
Mozambique	3.15	0.34	7.45	0.42	7.57	7.33	0.05

TABLE A:4—CONTINUED

Region/Country	Annual average % growth (1990–1995)	Annual average percentage point change (1990–1995)	Annual average % growth (1995–2003)	Annual average percentage point change (1995–2003)	2003	Annual average % growth (2003–2009)	Annual average percentage point change (2003–2009)
Namibia	4.55	0.32	3.54	0.02	7.10	5.07	–0.54
South Africa	0.69	0.69	2.94	–0.02	3.72	3.68	–0.79
Swaziland	3.93	–1.36	3.70	0.12	2.74	2.54	–0.58
Zambia	–1.15	–0.47	2.74	1.06	4.61	5.83	0.11
Zimbabwe	2.32	–1.37	–1.44	–1.32	–6.20	–6.35	0.69
Western	2.55	–0.06	3.77	0.45	5.56	5.53	–0.70
Benin	4.07	0.28	4.97	–0.09	3.83	3.93	–0.02
Burkina Faso	3.20	1.26	6.56	0.29	5.79	5.23	–0.76
Cape Verde	4.48	1.36	6.01	–0.16	3.36	6.49	–0.57
Cote d'Ivoire	1.07	1.64	2.25	–1.09	–0.40	1.41	0.89
Gambia, The	2.35	–0.54	3.65	0.75	3.56	6.08	–0.38
Ghana	4.13	0.16	4.38	0.14	5.10	5.66	–0.28
Guinea	3.97	0.06	4.22	0.10	3.84	3.22	–0.43
Guinea-Bissau	3.67	–0.34	0.24	–0.63	–1.84	1.99	0.49
Liberia	–26.56	9.35	18.64	–3.38	–8.33	0.79	5.98
Mali	2.18	1.61	6.21	0.15	4.59	4.93	–0.52
Niger	0.46	0.78	3.53	0.22	2.19	4.37	–0.57
Nigeria	3.44	–1.14	3.65	0.97	7.48	6.84	–1.23
Senegal	1.63	1.21	4.20	0.16	4.41	4.34	–0.86
Sierra Leone	–3.65	–2.27	3.34	2.16	14.75	6.75	–0.88
Togo	0.47	1.62	4.12	–0.64	3.28	2.43	–0.03
Middle-income countries	1.72	0.11	3.65	0.31	4.60	4.97	–0.57
Mineral-rich countries	–4.13	1.22	1.58	0.37	4.22	4.68	0.08
More favorable agricultural conditions	2.61	0.04	3.70	–0.22	3.57	5.48	0.28
Less favorable agricultural conditions	0.18	1.45	4.97	–0.13	6.07	5.35	–0.39

Source: Authors' calculation based on World Bank 2010b. Blank cells indicate missing values.
Notes: Includes GDP data imputed via growth rates derived from the log estimate of the five years following or preceding the missing values; data not available for Sao Tome & Principe or Somalia.

TABLE A:5—GDP PER CAPITA (CONSTANT 2000 USD)

Region/Country	Annual average level (1990–1995)	Annual average % change (1990–1995)	Annual average level (1995–2003)	Annual average % change (1995–2003)	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Africa	688.54	–1.19	711.16	1.03	748.17	818.14	2.86
SSA	501.39	–1.72	507.07	0.69	528.79	578.23	2.86
Central	338.07	–5.48	306.56	0.43	321.32	344.28	1.91
Burundi	144.34	–4.34	112.34	–1.06	109.44	109.41	0.68
Cameroon	625.26	–4.88	621.66	2.07	668.87	685.99	0.78
Central African Rep.	256.06	–2.01	247.61	–0.71	230.20	227.16	0.90
Chad	179.91	–2.15	177.61	1.65	218.84	271.62	3.26
Congo, Dem. Rep.	152.08	–11.52	95.08	–4.93	83.25	90.70	2.71
Congo, Rep.	1091.15	–2.62	1053.14	0.74	1090.62	1163.06	2.42
Equatorial Guinea	570.24	3.31	2413.29	29.66	5187.83	7087.16	8.53
Gabon	4586.64	–0.51	4376.80	–2.41	4005.70	4059.99	0.50
Sao Tome & Principe							
Eastern	244.86	–0.39	264.06	1.47	281.32	317.98	4.36
Comoros	397.23	–1.07	379.73	0.14	383.36	383.08	0.24
Djibouti	1029.68	–5.01	793.83	–1.92	768.46	825.58	2.82
Eritrea	149.04	12.62	192.22	–2.37	169.85	156.06	–2.22
Ethiopia	114.31	–1.69	124.00	0.95	130.57	162.63	8.34
Kenya	425.13	–1.86	409.29	–0.53	403.84	433.71	2.27
Madagascar	260.15	–2.90	244.47	–0.39	233.50	253.56	2.30
Mauritius	2837.09	3.66	3620.90	3.61	4100.21	4489.81	3.26
Rwanda	224.36	–6.65	221.91	2.15	245.40	279.00	5.12
Seychelles	6008.77	1.77	7002.63	1.96	6973.28	7477.71	2.58
Somalia							
Sudan	280.87	2.12	343.54	3.74	396.67	466.41	5.58
Tanzania	255.56	–1.68	266.25	2.18	297.05	334.07	3.95
Uganda	193.19	3.29	245.49	2.88	274.19	312.99	4.80
Northern	1487.55	–0.04	1633.97	2.05	1775.75	1971.83	3.38
Algeria	1722.43	–2.20	1783.03	1.93	1963.95	2112.67	1.64
Egypt	1159.81	1.44	1360.63	2.55	1474.26	1634.75	4.05

TABLE A:5—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average % change (1990–1995)	Annual average level (1995–2003)	Annual average % change (1995–2003)	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Libya	6469.39	–0.58	6216.01	–0.69	6207.46	7154.96	3.55
Mauritania	408.51	0.12	415.43	–0.16	419.22	457.02	2.31
Morocco	1184.46	–0.62	1299.12	2.62	1460.48	1630.27	3.58
Tunisia	1592.08	1.99	1948.41	3.67	2227.32	2527.32	4.07
Southern	1429.05	–1.78	1447.94	0.67	1510.34	1663.51	3.14
Angola	628.16	–9.68	632.66	3.19	730.04	1038.75	12.24
Botswana	2608.47	0.86	3153.86	4.38	3762.96	4038.80	1.48
Lesotho	365.53	3.29	412.65	1.01	436.53	479.93	3.39
Malawi	133.87	0.28	142.24	–1.73	130.15	144.45	4.24
Mozambique	183.72	0.15	231.16	5.16	279.08	324.59	5.05
Namibia	1945.73	1.74	2116.18	1.08	2291.94	2551.26	3.03
South Africa	2989.05	–1.26	3031.55	0.62	3177.20	3507.92	3.09
Swaziland	1199.51	0.47	1313.97	2.17	1430.39	1504.58	1.34
Zambia	352.64	–3.92	315.72	0.28	328.42	362.84	3.40
Zimbabwe	617.08	–1.33	609.45	–3.04	505.89	422.26	–5.80
Western	336.75	–0.60	347.23	0.81	365.64	400.60	2.62
Benin	298.81	0.51	329.91	1.83	348.47	352.88	0.72
Burkina Faso	182.84	0.48	219.13	3.06	242.48	256.66	1.34
Cape Verde	892.59	2.94	1142.89	4.09	1296.04	1535.74	5.87
Cote d'Ivoire	610.74	–2.35	606.02	–1.40	553.89	537.70	–0.51
Gambia, The	329.52	–1.70	315.38	0.54	320.99	352.05	3.02
Ghana	226.79	1.31	251.31	1.82	272.05	302.86	3.67
Guinea	335.51	–0.07	365.87	1.79	391.03	402.36	0.70
Guinea-Bissau	184.07	0.18	169.31	–4.10	143.42	142.06	0.07
Liberia	117.91	–23.00	143.55	13.13	152.55	139.12	2.53
Mali	192.14	0.60	228.93	4.15	265.05	285.34	2.24
Niger	176.22	–2.77	169.09	–0.04	166.82	170.97	1.05
Nigeria	362.84	–0.27	367.80	0.78	396.61	453.60	3.69
Senegal	448.01	–1.05	463.71	1.44	491.02	520.32	1.26

TABLE A:5—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average % change (1990–1995)	Annual average level (1995–2003)	Annual average % change (1995–2003)	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Sierra Leone	220.10	–5.09	181.16	1.06	220.19	244.61	3.23
Togo	244.10	–3.30	256.36	–0.51	249.30	248.32	–0.16
Middle-income countries	1114.64	–0.86	1172.94	1.38	1252.22	1382.81	3.14
Mineral-rich countries	205.36	–7.26	165.29	–1.18	162.43	172.30	2.16
More favorable agricultural conditions	239.05	–0.97	251.11	0.66	257.69	282.25	3.33
Less favorable agricultural conditions	168.99	–1.39	174.44	1.45	188.69	205.79	2.32

Source: Authors' calculation based on World Bank 2010b.
Notes: Data includes GDP data imputed via growth rates derived from the log estimate of the five years following or preceding the missing values. Blank cells indicate missing values.

TABLE A:6—ANNUAL INFLATION (GDP DEFLATOR) (%)

Region/Country	Annual average % growth (1990–1995)	Annual average percentage point change (1990–1995)	Annual average % growth (1995–2003)	Annual average percentage point change (1995–2003)	2003	Annual average % growth (2003–2009)	Annual average percentage point change (2003–2009)
Africa	1.32	–0.08	0.47	0.65	8.49	8.27	–3.35
SSA	0.38	2.26	1.59	1.06	13.07	8.85	–4.02
Central	–0.08	–2.43	1.70	1.66	12.89	9.10	–5.87
Burundi	0.10	3.85	–3.18	–2.69	–2.26	8.22	2.27
Cameroon	0.23	–2.98	0.47	3.58	13.67	7.34	–4.77
Central African Rep.	–0.09	0.57	2.68	–0.55	12.33	8.84	–3.30
Chad	0.90	–1.10	4.86	–0.13	15.97	10.10	–6.89
Congo, Dem. Rep.	3.60	–2.93	1.64	0.05	6.51	4.47	–1.12
Congo, Rep.	–0.90	–0.19	6.21	–0.02	15.55	13.31	–6.58
Equatorial Guinea	1.08	–0.02	10.61	0.82	17.61	15.32	–10.21
Gabon	1.31	–4.49	3.79	0.89	13.90	11.04	–7.16
Sao Tome & Principe							
Eastern	–2.96	3.62	1.26	–0.31	5.15	8.59	–2.09
Comoros	2.41	0.15	4.65	0.70	15.86	9.04	–5.64
Djibouti	5.20	0.98	2.43	–0.36	1.91	3.98	–0.05

TABLE A:6—CONTINUED

Region/Country	Annual average % growth (1990–1995)	Annual average percentage point change (1990–1995)	Annual average % growth (1995–2003)	Annual average percentage point change (1995–2003)	2003	Annual average % growth (2003–2009)	Annual average percentage point change (2003–2009)
Eritrea	–4.71	1.14	2.72	1.44	10.87	15.54	–2.87
Ethiopia	–4.48	0.19	–1.31	1.00	3.22	10.44	–1.82
Kenya	1.15	4.31	6.46	–1.39	4.52	7.96	–2.13
Madagascar	4.34	–3.05	4.94	1.13	0.10	6.34	–3.02
Mauritius	5.32	–0.82	0.80	0.58	8.03	5.10	–3.85
Rwanda	–0.76	3.41	–0.38	–2.37	0.54	10.56	–0.01
Seychelles	5.06	–1.30	1.80	0.28	6.78	0.75	–3.02
Somalia							
Sudan	–0.92	3.23	–1.01	1.10	11.07	12.63	–3.36
Tanzania	0.76	4.50	4.86	–1.60	–0.15	5.32	–0.17
Uganda	–2.88	10.54	–0.88	–4.13	6.96	6.42	0.91
Northern	3.90	–5.08	–1.01	0.09	1.55	7.58	–2.32
Algeria	–4.14	–3.21	1.74	2.12	9.69	10.45	–5.17
Egypt	3.70	1.57	1.20	–2.41	–9.76	6.31	3.18
Libya			–6.78	0.91	3.65	13.12	–6.96
Mauritania	4.83	–1.56	–3.45	0.99	7.26	10.83	–3.22
Morocco	5.02	1.54	2.75	–0.05	9.57	7.10	–3.10
Tunisia	5.61	0.00	0.88	–0.03	7.41	4.36	–3.10
Southern	2.16	3.10	0.32	2.50	16.27	8.82	–4.00
Angola	–1.64	0.32	9.02	0.72	19.12	16.46	–6.18
Botswana	3.10	–1.96	1.51	2.44	11.61	7.04	–5.46
Lesotho	5.81	–1.07	0.58	4.41	19.86	11.31	–6.14
Malawi	–3.74	–2.12	8.44	–1.96	16.83	2.51	3.75
Mozambique	–2.91	–0.85	2.08	0.45	4.23	5.38	–1.90
Namibia	3.71	–0.45	2.15	4.67	16.84	11.09	–5.86
South Africa	2.80	3.59	0.75	4.89	20.70	11.61	–6.96
Swaziland	12.60	–5.84	0.50	3.88	20.17	12.28	–7.36
Zambia	–0.59	4.84	0.82	0.56	9.49	14.10	–4.97

TABLE A:6—CONTINUED

Region/Country	Annual average % growth (1990–1995)	Annual average percentage point change (1990–1995)	Annual average % growth (1995–2003)	Annual average percentage point change (1995–2003)	2003	Annual average % growth (2003–2009)	Annual average percentage point change (2003–2009)
Zimbabwe	–4.41	0.79	13.12	–8.17	9.08	–39.83	10.38
Western	0.41	1.44	5.39	–0.97	13.42	9.41	–3.97
Benin	3.50	1.87	5.60	–0.79	15.19	9.13	–4.34
Burkina Faso	–2.86	–0.11	3.38	0.17	15.40	8.48	–3.73
Cape Verde	4.63	–0.57	2.01	1.34	15.24	7.57	–3.90
Cote d'Ivoire	2.16	2.33	4.16	–0.25	14.23	9.23	–4.45
Gambia, The	2.73	–0.69	–3.27	–1.42	–4.56	4.66	–1.27
Ghana	–0.07	1.10	0.88	0.46	12.96	8.44	–4.51
Guinea	3.24	–0.15	–3.63	0.33	3.60	2.47	–1.17
Guinea-Bissau	–0.44	–0.93	0.88	1.67	14.98	12.55	–2.77
Liberia	3.87	1.34	–0.36	0.03	5.13	6.98	–1.22
Mali	3.81	1.77	5.17	–1.28	17.62	10.07	–3.76
Niger	–1.18	0.39	3.19	0.28	11.90	9.33	–3.33
Nigeria	1.46	1.10	9.12	–1.52	14.15	9.83	–4.08
Senegal	–0.06	0.46	2.83	0.14	13.25	9.20	–3.93
Sierra Leone	4.77	7.28	–1.10	–0.86	–3.04	4.14	–0.23
Togo	1.41	0.58	3.22	–0.94	12.17	7.53	–3.32
Middle-income countries	1.91	–0.47	0.41	1.27	9.64	9.30	–4.31
Mineral-rich countries	1.63	0.10	–0.23	0.18	6.35	8.72	–0.71
More favorable countries	–2.36	2.26	2.61	–2.86	3.64	4.31	1.29
Less favorable countries	–1.52	1.32	1.95	–0.16	11.71	9.93	–3.88

Source: Authors' calculation based on World Bank 2010b.
Notes: Data on Libya covers 2000–2009 only. Inflation calculated from the year-over-year percent increase in the GDP deflator. GDP deflator calculated as Nominal GDP divided by Real GDP. Blank cells indicate missing values.

TABLE A:7—GENERAL GOVERNMENT GROSS DEBT AS A SHARE OF GDP (%)

Region/Country	Annual average (2000-2003)	Annual average % change (2000-2003)	2003	Annual average (2003-2009)	Annual average % change (2003-2009)
Africa	71.12	1.09	69.84	54.86	–8.24
SSA	69.41	–3.83	63.72	45.58	–10.81
Central	105.84	–1.63	102.02	73.60	–10.64
Burundi	192.98	11.90	228.40	176.07	–17.68
Cameroon	91.83	–16.59	71.38	61.38	–5.01
Central African Rep.	96.69	3.16	100.18	84.31	–15.64
Chad	60.45	–14.30	45.85	32.12	–7.45
Congo, Dem. Rep.	199.55	–15.84	198.88	155.16	–6.35
Congo, Rep.	185.92	6.10	194.45	118.09	–20.08
Equatorial Guinea	22.45	–31.17	12.46	4.00	–23.94
Gabon	81.53	–0.59	75.94	46.67	–18.37
Sao Tome & Principe	359.77	–10.44	325.48	200.64	–27.26
Eastern	98.93	–0.56	94.59	67.36	–12.44
Comoros	98.51	–10.83	83.56	69.88	–6.70
Djibouti	66.08	0.00	66.97	62.32	–1.84
Eritrea	175.51	5.96	183.48	159.04	–4.16
Ethiopia	107.02	6.79	112.27	67.16	–21.82
Kenya	55.40	5.62	57.52	50.48	–3.34
Madagascar	115.50	–6.25	104.05	59.40	–20.37
Mauritius	51.53	10.52	55.92	52.27	–3.75
Rwanda	102.42	0.34	99.78	50.99	–26.70
Seychelles	150.17	4.93	159.78	142.61	–3.81
Somalia					
Sudan	161.27	–4.55	143.81	99.99	–10.87

TABLE A:7—CONTINUED

Region/Country	Annual average (2000-2003)	Annual average % change (2000-2003)	2003	Annual average (2003-2009)	Annual average % change (2003-2009)
Tanzania	76.74	–4.58	76.00	60.88	–11.04
Uganda	77.19	8.28	78.90	49.94	–23.51
Northern	72.17	12.11	80.70	73.30	–3.99
Algeria					
Egypt	107.86	13.72	109.53	97.02	–7.77
Libya	34.44	–18.55	18.43	6.90	–64.50
Mauritania	250.00	–8.66	220.41	140.68	–14.97
Morocco	68.40	–4.14	64.40	57.22	–5.41
Tunisia	66.82	0.16	62.49	50.49	–6.50
Southern	45.55	–4.61	41.32	33.46	–6.47
Angola	86.35	–17.13	62.79	37.30	–8.68
Botswana	8.43	7.59	9.11	8.68	0.33
Lesotho	102.10	–11.03	78.15	60.70	–6.38
Malawi	132.45	8.97	129.28	73.77	–22.60
Mozambique	112.01	–15.16	82.83	52.85	–21.16
Namibia	22.22	6.74	24.74	21.98	–9.24
South Africa	39.05	–5.99	35.68	31.50	–4.48
Swaziland	21.48	–2.78	20.09	16.99	–3.73
Zambia	206.43	–12.59	177.43	75.16	–30.84
Zimbabwe				74.11	12.54
Western	85.20	–9.08	71.90	43.45	–15.63
Benin	51.35	–15.47	40.04	29.42	–7.22
Burkina Faso	46.64	–8.38	46.37	32.91	–11.35
Cape Verde	89.70	–1.34	90.68	83.14	–5.13
Cote d'Ivoire	97.57	–5.88	89.64	79.86	–5.01
Gambia, The	128.38	9.93	135.59	98.33	–15.49

TABLE A:7—CONTINUED

Region/Country	Annual average (2000-2003)	Annual average % change (2000-2003)	2003	Annual average (2003-2009)	Annual average % change (2003-2009)
Ghana	144.71	–12.04	116.25	73.29	–10.60
Guinea	112.08	–2.46	111.98	111.15	–7.63
Guinea-Bissau	233.94	7.13	245.02	200.15	–7.31
Liberia				410.07	–38.61
Mali	79.49	–23.43	53.74	35.35	–15.57
Niger	83.15	–6.53	72.53	34.53	–26.25
Nigeria	76.21	–10.20	61.77	28.12	–25.06
Senegal	67.27	–9.23	56.88	36.04	–11.82
Sierra Leone	218.92	5.29	214.17	130.57	–24.15
Togo	101.23	–0.33	98.18	78.82	–9.31
Middle-income countries	65.55	1.37	64.69	52.39	–7.06
Mineral-rich countries	153.96	12.32	165.70	120.46	–11.21
More favorable agriculture conditions	89.76	–3.30	83.23	58.25	–13.25
Less favorable agriculture conditions	112.59	–7.74	99.08	62.54	–16.06

Source: Authors' calculation based on IMF 2010b.
Notes: "Gross debt consists of all liabilities that require payment or payments of interest and/or principal by the debtor to the creditor at a date or dates in the future. This includes debt liabilities in the form of SDRs, currency and deposits, debt securities, loans, insurance, pensions and standardized guarantee schemes, and other accounts payable. Thus, all liabilities in the GFSM 2001 system are debt, except for equity and investment fund shares and financial derivatives and employee stock options. Debt can be valued at current market, nominal, or face values" (IMF 2001, paragraph 7.110). DRC, Tanzania, Egypt, Burkina Faso, Cape Verde, Sierra Leone & Malawi data begin in 2002; Sao Tome, Togo & Zambia data begin in 2001; Djibouti data begin in 2003; Libya data ends in 2006; Zimbabwe data begin in 2005; Liberia data begin in 2007; all data weighted by real GDP (with imputed values where GDP data was missing). Regional and economic aggregations calculated using a GDP weight. See technical notes for exact calculations.

TABLE A:8—GENERAL GOVERNMENT REVENUE AS A SHARE OF GDP (%)

Region/Country	Annual average (2000-2003)	Annual average % change (2000-2003)	2003	Annual average (2003-2009)	Annual average % change (2003-2009)
Africa	27.2	–1.12	27.2	29.7	1.66
SSA	24.7	–1.90	24.5	26.3	0.70
Central	20.1	1.62	20.4	26.3	6.21
Burundi	24.4	8.89	29.4	44.9	16.97
Cameroon	16.7	–1.32	16.1	22.4	3.85
Central African Rep.	13.0	–9.65	12.2	14.6	8.20
Chad	14.0	5.25	13.8	19.7	15.69
Congo, Dem. Rep.	7.4	24.51	9.8	17.0	15.17
Congo, Rep.	28.7	2.65	29.3	37.2	3.03
Equatorial Guinea	25.3	12.58	28.3	35.6	6.41
Gabon	32.6	–2.83	31.0	31.2	0.64
Sao Tome & Principe	41.0	–17.52	33.7	61.7	3.74
Eastern	17.7	4.51	19.4	20.8	–0.19
Comoros	17.8	8.07	19.0	20.4	4.83
Djibouti	30.5	3.43	33.0	36.5	1.86
Eritrea	42.6	1.81	41.4	30.2	–16.48
Ethiopia	19.1	7.67	20.4	18.4	–5.02
Kenya	20.4	1.53	21.4	22.6	1.66
Madagascar	13.7	–2.96	15.3	22.3	–3.96
Mauritius	18.2	0.21	18.5	19.6	2.11
Rwanda	19.4	–4.28	19.9	22.3	3.85
Seychelles	34.5	5.14	38.1	39.1	–2.16
Somalia					
Sudan	12.2	15.47	16.1	19.8	–0.14
Tanzania	17.6	7.22	19.8	22.5	4.25
Uganda	17.9	0.68	18.1	17.5	–2.94

TABLE A:8—CONTINUED

Region/Country	Annual average (2000-2003)	Annual average % change (2000-2003)	2003	Annual average (2003-2009)	Annual average % change (2003-2009)
Northern	31.5	–2.91	30.8	34.4	2.75
Algeria	36.5	–0.97	36.2	40.0	1.56
Egypt	25.8	3.18	25.7	26.9	1.63
Libya	43.8	6.88	49.6	61.5	5.20
Mauritania	27.6	9.05	30.3	26.9	–3.81
Morocco	22.6	–2.32	22.3	25.6	4.90
Tunisia	27.1	0.64	27.2	27.7	1.73
Southern	25.8	–0.79	25.7	27.9	2.26
Angola	44.3	–10.24	39.0	41.5	0.32
Botswana	38.6	–5.17	36.5	35.9	–2.30
Lesotho	48.3	–1.11	49.5	57.6	5.05
Malawi	18.7	36.45	20.9	28.1	5.01
Mozambique	22.1	0.02	21.4	23.4	4.70
Namibia	27.5	–2.85	26.3	27.8	3.06
South Africa	23.9	0.68	24.3	26.4	2.55
Swaziland	26.3	1.21	27.9	34.8	5.87
Zambia	24.9	1.80	24.9	25.8	–2.95
Zimbabwe				11.4	–8.34
Western	29.5	–7.31	27.3	27.5	–3.38
Benin	18.1	1.84	18.7	20.4	2.90
Burkina Faso	17.9	–2.48	17.6	21.2	1.10
Cape Verde	29.1	–14.07	30.0	31.0	1.55
Cote d'Ivoire	17.8	1.17	18.2	19.0	2.21
Gambia, The	13.6	–4.64	14.9	16.5	4.13
Ghana	22.3	4.51	24.4	27.5	1.15
Guinea	13.9	0.94	13.5	15.1	3.83
Guinea-Bissau	15.3	–17.36	13.6	17.0	7.61

TABLE A:8—CONTINUED

Region/Country	Annual average (2000-2003)	Annual average % change (2000-2003)	2003	Annual average (2003-2009)	Annual average % change (2003-2009)
Liberia	13.9	–9.18	13.4	19.8	16.64
Mali	20.7	6.01	22.4	27.7	–0.23
Niger	15.2	2.72	16.2	25.2	5.81
Nigeria	38.2	–10.92	33.4	31.5	–6.41
Senegal	19.2	2.41	20.0	21.3	1.77
Sierra Leone	20.0	1.08	20.8	23.4	–0.07
Togo	14.6	7.17	15.9	17.8	0.73
Middle-income countries	28.8	–2.04	28.4	31.1	1.75
Mineral-rich countries	14.9	4.49	15.7	19.4	5.14
More favorable agriculture conditions	18.9	3.04	20.0	21.2	0.35
Less favorable agriculture conditions	20.8	3.40	21.7	25.7	3.97

Source: Authors' calculation based on IMF 2010b.
Notes: Egypt, Malawi, and Cape Verde 2000–2003 columns includes data from 2002–2003 only; Zimbabwe data is from 2005–2009 only; weighted by real GDP (with imputed values where GDP data was missing). Revenue consists of taxes, social contributions, grants receivable, and other revenue. Revenue increases government's net worth, which is the difference between its assets and liabilities (IMF 2001, paragraph 4.20). See technical notes for exact calculations.

Annex B: CAADP Implementation Processes

TABLE B:1—PROGRESS IN CAADP ROUNDTABLE PROCESS AT END OF DECEMBER 2010

Country/ Region	Focal Point appointed	Process launched	Steering & Technical Committee instituted	Stocktaking, Growth & Investment Analysis undertaken	Compact drafted	Round Table held and Compact signed	Investment plan drafted, reviewed and validated	Financing plan secured and annual review mechanism agreed upon	Execution of investment plan
*Africa**	39	33	31	31	25	24	19	3	1
*Central Africa**	5	2	2	2	1	1	0	0	0
Burundi						24 Aug 09			
Cameroon									
Central African Republic	Early stages.								
Chad									
Congo, Dem. Rep.				In progress.					
Congo, Rep.	Not launched.								
Equatorial Guinea	Not launched.								
Gabon									
Sao Tome and Principe	Not launched.								
*Eastern Africa**	12	11	10	10	5	5	5	1	1
Comoros									
Djibouti				In progress.					
Eritrea									
Ethiopia						27 Sep 09			
Kenya						24 Jul 10			
Madagascar									
Mauritius									
Rwanda						31 Mar 07	7 Dec 09		
Seychelles									
Somalia	Not launched.								
Sudan									
Tanzania						6 Jul 10	15 Sep 10		

TABLE B:1—CONTINUED

Country/ Region	Focal Point appointed	Process launched	Steering & Technical Committee instituted	Stocktaking, Growth & Investment Analysis undertaken	Compact drafted	Round Table held and Compact signed	Investment plan drafted, reviewed and validated	Financing plan secured and annual review mechanism agreed upon	Execution of investment plan
Uganda						30 Mar 10	16 Sep 10		
*Northern Africa**	2	0	0	0	0	0	0	0	0
Algeria	Not launched.								
Egypt									
Libya									
Mauritania	Not launched.								
Morocco	Not launched.								
Tunisia	Not launched.								
*Southern Africa**	5	4	4	4	4	3	1	0	0
Angola	Not launched.								
Botswana	Not launched.								
Lesotho	Early stages.								
Malawi						19 Apr 10			
Mozambique									
Namibia	Early stages.								
South Africa	Not launched.								
Swaziland						3 Mar 10			
Zambia						18 Jan 11			
Zimbabwe									
*Western Africa**	15	15	15	15	15	15	13	2	0
Benin						15 Oct 09			
Burkina Faso						22 Jul 10			
Cape Verde						10 Dec 09			
Cote d'Ivoire						27 Jul 10			
Gambia, The						27 Oct 09			
Ghana						27 Oct 09			
Guinea						6 Apr 10			
Guinea Bissau						18 Jan 11			

TABLE B:1—CONTINUED

Country/ Region	Focal Point appointed	Process launched	Steering & Technical Committee instituted	Stocktaking, Growth & Investment Analysis undertaken	Compact drafted	Round Table held and Compact signed	Investment plan drafted, reviewed and validated	Financing plan secured and annual review mechanism agreed upon	Execution of investment plan
Liberia						5 Oct 09			
Mali						12 Oct 09			
Niger						29 Sep 09			
Nigeria						12 Oct 09			
Senegal						9 Feb 10			
Sierra Leone						17 Sep 09			
Togo						19 Jul 09	4 Feb 10		
*RECs***	2	2	2	2	2	1	1	0	0
COMESA									
ECCAS	Not launched.								
ECOWAS						11 Nov 09			
SADC	Not launched.								

Sources: Authors' calculations based on compilation from various CAADP reports and websites.
Notes: * number of countries in Africa or subregion that have achieved milestone; ** number of RECs that have achieved milestone; see technical notes for more information on compilation process

Annex C: Agricultural Financing

TABLE C:1—AGRICULTURE EXPENDITURES, ANNUAL GROWTH RATE (%)

Region/Country	Annual average (1990–1995)	Annual average change (%age point) (1990–1995)	Annual average (1995–2003)	Annual average change (%age point) (1995–2003)	2003	Annual average (2003–2006)	Annual average change (%age point) (2003–2006)
Africa							
SSA							
Central							
Burundi							
Cameroon	–4.1	–10.2	4.2	4.4	8.8	8.4	–1.3
Central African Rep.							
Chad							
Congo, Dem. Rep.							
Congo, Rep.							
Equatorial Guinea							
Gabon							
Sao Tome & Principe							
Eastern							
Comoros							
Djibouti							
Eritrea							
Ethiopia	6.6	–2.6	15.8	8.4	60.3	37.2	–13.8
Kenya	–6.9	6.6	–1.6	2.5	0.0	–7.3	–2.3
Madagascar							
Mauritius							
Rwanda							
Seychelles							
Somalia							
Sudan							
Tanzania							

TABLE C:1—CONTINUED

Region/Country	Annual average (1990–1995)	Annual average change (%age point) (1990–1995)	Annual average (1995–2003)	Annual average change (%age point) (1995–2003)	2003	Annual average (2003–2006)	Annual average change (%age point) (2003–2006)
Uganda	8.1	–19.7	39.3	5.6	–3.2	–4.3	11.9
Northern							
Algeria							
Egypt	2.6	1.4	2.9	–0.4	–11.3	–7.1	–0.4
Libya							
Mauritania							
Morocco	–0.1	–3.0	–1.9	1.0	–2.1	–5.0	4.8
Tunisia	0.9	2.7	5.8	–1.1	–5.0	–5.0	2.3
Southern							
Angola							
Botswana	2.0	4.4	5.8	–1.3	–2.8	–7.7	–3.8
Lesotho							
Malawi	11.3	18.4	2.5	–13.3	–23.5	–7.9	9.8
Mozambique							
Namibia							
South Africa							
Swaziland							
Zambia	–14.2	12.1	5.2	–1.9	–2.0	47.4	22.2
Zimbabwe							
Western							
Benin							
Burkina Faso	6.1	1.5	16.5	0.5	46.7	41.8	1.3
Cape Verde							
Cote d'Ivoire	16.8	–9.6	43.6	5.4	167.4	–15.2	–1.3
Gambia, The							
Ghana	–4.5	–6.8	6.8	6.8	–6.7	19.8	10.3
Guinea							
Guinea-Bissau							

TABLE C:1—CONTINUED

Region/Country	Annual average (1990–1995)	Annual average change (%age point) (1990–1995)	Annual average (1995–2003)	Annual average change (%age point) (1995–2003)	2003	Annual average (2003–2006)	Annual average change (%age point) (2003–2006)
Liberia							
Mali	2.1	–0.4	16.3	1.0	8.8	29.9	27.2
Niger							
Nigeria	–5.8	–8.5	54.3	8.3	–16.1	12.0	1.8
Senegal							
Sierra Leone							
Togo	2.5	–8.1	5.4	6.6	17.5	16.5	–4.4
Middle-income countries							
Mineral-rich countries							
More favorable agriculture conditions							
Less favorable agriculture conditions							

Sources: Authors' calculations based on IMF 2010c. Blank cells indicate missing values. Values for the regional aggregated are not calculated due to spares data points on individual countries.

TABLE C:2—SHARE OF PUBLIC ALLOCATED AGRICULTURE SPENDING IN TOTAL PUBLIC ALLOCATED SPENDING (%)

Region/Country	Annual average (1990–1995)	Annual average % change (1990–1995)	Annual average (1995–2003)	Annual average % change (1995–2003)	2003	Annual average (2003–2009)	Annual average % change (2003–2009)
Africa	6.2	2.6	6.1	–2.4	5.5	6.4	8.2
SSA	14.2	0.7	12.2	–5.1	9.2	9.0	–4.1
Central			2.9		2.9	2.9	–4.5
Burundi						4.7	10.6
Cameroon	4.5	3.4	3.1	0.3	3.6	4.0	9.0
Central African Rep.					4.9	3.1	–14.1
Chad					5.5	7.8	1.1
Congo, Dem. Rep.					1.2	1.3	1.7
Congo, Rep.					1.1	1.0	–4.0
Equatorial Guinea							

TABLE C:2—CONTINUED

Region/Country	Annual average (1990–1995)	Annual average % change (1990–1995)	Annual average (1995–2003)	Annual average % change (1995–2003)	2003	Annual average (2003–2009)	Annual average % change (2003–2009)
Gabon							
Sao Tome & Principe					4.0	4.4	6.7
Eastern	9.2	5.8	8.3	3.0	11.6	13.5	–3.9
Comoros					1.8		
Djibouti					1.1	1.8	21.1
Eritrea							
Ethiopia	9.7	8.0	8.2	–4.7	9.2	13.7	5.7
Kenya	7.6	3.1	5.7	–0.6	4.9	4.7	–9.5
Madagascar					8.0	7.0	–17.5
Mauritius					4.0	3.2	–1.9
Rwanda					5.5	3.7	–6.4
Seychelles					0.9	0.9	–2.6
Somalia							
Sudan					3.4	5.6	19.9
Tanzania			5.7		5.7	5.2	–12.8
Uganda	2.6	0.4	2.0	1.2	2.3	2.6	9.1
Northern	5.1	–0.6	5.6	0.6	4.8	4.0	–14.3
Algeria							
Egypt	4.8	–0.2	5.9	1.3	5.1	4.2	–15.5
Libya							
Mauritania					6.6	5.9	1.9
Morocco	5.0	–2.3	3.8	–3.6	3.2	2.6	–10.1
Tunisia	8.0	0.5	8.5	2.7	8.7	7.4	–9.9
Southern	12.9	–14.7	7.7	–0.8	8.0	7.0	–9.7
Angola					2.2	4.4	12.5
Botswana	5.9	1.1	5.1	–7.0	3.7	3.2	–2.2
Lesotho					4.8	4.2	–3.4
Malawi	10.3	–9.3	8.2	–2.9	7.4	9.8	20.2
Mozambique					6.2	4.5	–15.2

TABLE C:2—CONTINUED

Region/Country	Annual average (1990–1995)	Annual average % change (1990–1995)	Annual average (1995–2003)	Annual average % change (1995–2003)	2003	Annual average (2003–2009)	Annual average % change (2003–2009)
Namibia					5.2	6.9	15.6
South Africa							
Swaziland					4.1	4.5	–10.6
Zambia	2.8	–3.7	2.9	–6.3	2.7	5.3	19.4
Zimbabwe	8.1	–20.6	3.9	12.4	9.7	8.6	–13.6
Western	10.9	13.8	13.4	–4.7	12.6	11.6	–5.6
Benin			7.0	–7.2	5.4	6.0	–0.6
Burkina Faso	28.1	1.0	27.4	–4.7	25.6	19.2	–12.3
Cape Verde							
Cote d'Ivoire	3.7	7.6	3.1	–4.9	2.6	2.4	–7.3
Gambia, The						5.0	
Ghana	8.5	1.8	8.6	–5.8	7.2	8.7	5.2
Guinea					21.4	13.7	–8.6
Guinea-Bissau					1.8	1.4	–9.5
Liberia						5.1	
Mali			16.0	–13.9	10.0	11.8	2.7
Niger					17.5	15.5	–6.0
Nigeria	2.6	11.4	3.3	–4.8	2.8	3.6	17.7
Senegal	5.4	–0.9	6.4	2.9	8.5	12.1	17.1
Sierra Leone					2.8	2.8	–4.4
Togo	4.3	3.5	3.8	–6.2	2.5	4.7	29.7
Middle-income countries	5.0	–0.01	5.2	–0.6	4.5	4.4	–2.4
Mineral-rich countries					3.7	4.6	10.1
More favorable agriculture conditions	8.7	3.15	7.3	–3.3	7.1	7.7	2.2
Less favorable agriculture conditions					14.3	13.7	–14.3

Source: ReSAKSS compilation based on various sources: IMF 2010c, National sources, and CAADP 2010.
Notes: Comoros value reported for average over 2003–2009 is single data point measured in 2005. Data on Ethiopia includes rural development and agriculture programs in total agriculture spending. Data were compiled from a variety of sources, including the IMF, CAADP publications, and several national sources (particularly ministry of finance) by the ReSAKSS regional networks. Data collected by ReSAKSS from national sources were first used, then gaps were filled by data obtained from CAADP publications and then the IMF. Regional and economic aggregations based on shares of agriculture GDP of each country in the regional total. See technical notes for exact method of calculation. Blank cells indicate missing values

TABLE C:3—PUBLIC ALLOCATED AGRICULTURE EXPENDITURE AS PERCENT OF AGRICULTURE GDP AND GDP

	Share in total ODA							Share in total sector allocatable ODA						
Region/Country	**Annual avg. (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. (2003–2006)**	**Annual avg. % change (2003–2006)**	**Annual avg. (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. (2003–2006)**	**Annual avg. % change (2003–2006)**
Africa														
SSA														
Central														
Burundi														
Cameroon	3.0	–4.9	2.2	5.3	2.9	3.2	5.8	0.7	–11.0	0.4	4.2	0.5	0.6	4.3
Central African Rep.														
Chad														
Congo, Dem. Rep.														
Congo, Rep.														
Equatorial Guinea														
Gabon														
Sao Tome & Principe														
Eastern														
Comoros														
Djibouti														
Eritrea														
Ethiopia	2.8	9.1	4.1	5.2	6.0	7.9	11.7	1.4	7.8	1.7	–0.1	2.0	2.6	16.4
Kenya	5.0	1.3	3.9	–1.1	3.8	3.3	–11.2	1.1	4.0	1.0	–1.1	0.9	0.7	–13.7
Madagascar														
Mauritius														
Rwanda			3.4	–16.7	3.2	2.6	–5.1							
Seychelles														
Somalia														
Sudan														
Tanzania														
Uganda	0.7	–12.9	2.1	45.8	4.1	3.0	–18.8	0.3	–12.2	0.5	33.1	0.8	0.6	–17.3
Northern														
Algeria														
Egypt	8.7	5.8	9.8	0.7	8.6	7.6	–7.2	1.3	4.5	1.4	–0.4	1.1	0.9	–12.6

TABLE C:3—CONTINUED

	Share in total ODA							Share in total sector allocatable ODA						
Region/Country	**Annual avg. (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. (2003–2006)**	**Annual avg. % change (2003–2006)**	**Annual avg. (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. (2003–2006)**	**Annual avg. % change (2003–2006)**
Libya														
Mauritania														
Morocco	8.3	4.9	6.9	–1.9	6.0	5.2	–4.9	1.3	1.0	1.0	–3.4	0.8	0.7	–7.2
Tunisia	15.1	7.3	18.3	4.3	19.7	16.3	–6.3	1.9	1.1	2.0	3.1	2.1	1.7	–10.7
Southern														
Angola														
Botswana	46.0	5.5	68.6	3.1	70.7	66.4	–1.6	1.8	1.1	1.7	–4.5	1.4	1.1	–12.0
Lesotho														
Malawi	9.1	8.9	5.9	–11.0	3.2	2.7	–3.3	2.5	–8.3	1.5	–7.7	1.0	0.7	–7.5
Mozambique														
Namibia														
South Africa														
Swaziland														
Zambia	4.1	–3.3	4.9	–2.7	3.6	6.5	60.8	0.4	10.0	0.7	0.8	0.6	1.1	64.6
Zimbabwe														
Western														
Benin			3.3	24.6	3.5	3.7	0.3							
Burkina Faso	12.7	20.0	8.1	–8.7	6.6	6.4	–3.0	0.7	0.0	1.2	9.9	2.1	3.2	34.1
Cape Verde														
Cote d'Ivoire	3.1	18.5	2.7	–7.3	2.2	2.0	–4.9	0.8	4.0	0.6	–5.1	0.9	0.6	–29.5
Gambia, The														
Ghana	1.2	–4.1	1.3	–0.9	0.7	0.9	19.6	0.4	–12.9	0.4	–1.5	0.2	0.3	18.7
Guinea														
Guinea-Bissau														
Liberia														
Mali	8.7	1.7	8.9	–6.5	7.4	9.2	13.0	2.9	–5.9	2.3	8.8	3.0	3.6	17.6
Niger	7.6		7.6	5.0	9.5	9.0	–5.7							
Nigeria					2.2	3.0	43.1	0.3	–13.4	0.7	23.8	0.8	0.9	10.0
Senegal	4.7	–11.4	5.9	14.9	13.9	20.7	20.8							

TABLE C:3—CONTINUED

	Share in total ODA							Share in total sector allocatable ODA						
Region/Country	**Annual avg. (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. (2003–2006)**	**Annual avg. % change (2003–2006)**	**Annual avg. (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. (2003–2006)**	**Annual avg. % change (2003–2006)**
Sierra Leone														
Togo	2.4	–4.6	1.5	–11.2	0.8	1.4	35.6	0.4	–8.7	0.4	8.5	0.6	0.7	10.4
Middle-income countries														
Mineral-rich countries														
More favorable agriculture conditions														
Less favorable agriculture conditions														

Source: Authors' calculation based on IMF 2010c; ReSAKSS node data compilation (2010).
Notes: Blank cells indicate missing values. Values for the regional aggregated are not calculated due to sparse data points on individual countries

Annex D: Agricultural Output, Productivity and Growth

TABLE D:1—AGRICULTURE VALUE ADDED AS SHARE OF GDP (CONSTANT 2000 USD)

	Agriculture value added share in GDP (%)						
Region/Country	**Annual average level (1990–1995)**	**Annual average change (1990–1995)**	**Annual average level (1995–2003)**	**Annual average change (1995–2003)**	**2003**	**Annual average level (2003–2009)**	**Annual average change (2003–2009)**
Africa	16.9	–1.4	16.6	0.2	16.8	14.5	–5.1
SSA	17.9	–0.8	18.0	1.3	19.6	16.5	–6.6
Central	27.7	2.5	24.8	–2.0	21.8	18.4	–4.5
Burundi	51.9	–3.4	45.0	–3.8	40.2	38.3	
Cameroon	24.1	–1.7	23.3	–1.5	21.5	20.2	
Central African Rep.	45.9	–0.5	52.9	2.4	56.4	55.3	–1.1
Chad	34.5	3.0	39.2	–0.2	32.2	18.8	–7.1
Congo, Dem. Rep.	48.0	12.2	50.1	2.2	49.8	45.0	–3.2
Congo, Rep.	11.3	–3.8	7.9	–7.6	6.0	4.9	–4.2
Equatorial Guinea	53.5	–4.0	19.4	–25.1	5.3	3.3	–9.6
Gabon	8.1	2.9	6.8	–3.2	5.9	5.1	–4.2
Sao Tome & Principe			20.2		21.2	20.1	
Eastern	38.6	–0.3	36.7	–2.1	33.3	31.3	–2.1
Comoros	39.7	–0.7	44.9	3.4	50.5	47.7	–2.4
Djibouti	3.3	2.0	3.5	0.8	3.6	3.6	
Eritrea	24.6		18.9	–3.4	15.0	20.0	
Ethiopia	61.3	–0.2	50.8	–4.1	43.2	45.5	1.2
Kenya	30.4	2.5	30.9	–0.6	28.7	27.3	–0.9
Madagascar	27.8	–2.9	29.3	0.9	29.9	27.0	–3.3
Mauritius	11.2	–4.6	8.0	–6.8	6.3	5.4	–7.5
Rwanda	37.6	8.4	41.5	–3.3	37.6	38.0	–0.5
Seychelles	4.3	–3.0	3.3	–3.7	3.0	2.4	–7.1
Somalia	65.5						
Sudan	39.7	–1.9	42.9	–0.7	38.7	30.8	–6.7

TABLE D:1—CONTINUED

	Agriculture value added share in GDP (%)						
Region/Country	**Annual average level (1990–1995)**	**Annual average change (1990–1995)**	**Annual average level (1995–2003)**	**Annual average change (1995–2003)**	**2003**	**Annual average level (2003–2009)**	**Annual average change (2003–2009)**
Tanzania	47.1	–0.2	45.7	–0.8	45.3	45.6	
Uganda	51.9	–2.4	36.4	–8.5	25.6	28.7	5.4
Northern	15.4	–2.4	14.6	–1.7	13.0	11.7	–2.0
Algeria	11.1	–1.2	10.7	–1.1	10.2	9.1	–1.6
Egypt	17.3	–2.3	16.8	–0.5	16.0	14.2	–4.8
Libya			4.8		4.2	2.6	
Mauritania	34.7	5.7	30.7	–4.6	26.3	20.5	
Morocco	17.4	–3.5	17.1	–0.3	16.7	16.2	0.5
Tunisia	14.5	–7.1	12.2	–1.5	11.7	10.6	–6.7
Southern	6.9	–3.8	6.2	–1.5	5.8	5.4	–0.7
Angola	12.9	–20.9	8.1	–0.3	8.3	8.3	–0.1
Botswana	4.8	–2.3	3.1	–8.8	2.2	2.2	2.3
Lesotho	18.3	–3.8	14.5	–8.0	9.6	8.3	–4.3
Malawi	38.7	–9.3	36.1	2.6	37.4	35.1	–0.8
Mozambique	36.2	–2.0	29.6	–4.4	27.8	28.0	0.9
Namibia	11.3	0.8	11.3	–1.1	10.5	9.9	–4.6
South Africa	4.3	–2.2	3.7	–1.5	3.6	3.1	–0.3
Swaziland	11.1	3.8	12.2	–3.5	9.8	8.1	–4.7
Zambia	21.6	–1.6	21.0	3.2	22.6	21.7	–1.5
Zimbabwe	14.7	2.8	18.2	–2.0	15.9	17.6	
Western	31.9	–2.3	32.3	2.5	36.6	30.7	–5.2
Benin	34.9	–1.7	35.9	–1.2	32.6	32.1	
Burkina Faso	31.9	4.3	35.4	–1.0	34.4	34.0	
Cape Verde	13.3	–0.8	10.7	–8.8	7.9	9.0	2.7
Cote d'Ivoire	29.7	–6.6	24.3	0.6	24.8	24.0	0.3
Gambia, The	27.6	0.3	31.4	0.9	30.8	30.3	–2.9
Ghana	41.4	–4.1	36.4	–1.0	36.5	35.4	–2.3
Guinea	19.6	–2.0	21.1	2.2	23.3	24.2	

TABLE D:1—CONTINUED

	Agriculture value added share in GDP (%)						
Region/Country	**Annual average level (1990–1995)**	**Annual average change (1990–1995)**	**Annual average level (1995–2003)**	**Annual average change (1995–2003)**	**2003**	**Annual average level (2003–2009)**	**Annual average change (2003–2009)**
Guinea-Bissau	55.0	–0.9	56.8	–0.1	56.8	55.2	
Liberia	57.7	5.4	77.8	–2.3	71.8	63.1	
Mali	46.2	1.4	43.6	–4.2	36.7	37.0	
Niger	38.8	2.2	39.9	–0.1	39.8	40.0	
Nigeria			45.6		41.8	34.9	
Senegal	19.9	0.5	18.9	–2.6	16.3	15.7	–1.8
Sierra Leone	41.5	–0.8	52.5	–0.2	46.5	49.4	1.7
Togo	36.4	2.8	38.2	–0.2	40.0	41.9	
Middle-income countries	12.4	–2.7	12.6	1.8	13.8	11.4	–6.4
Mineral-rich countries	36.5	4.9	37.2	1.4	37.2	35.7	–1.9
More favorable agriculture conditions	37.4	–0.2	35.4	–1.8	33.1	33.6	0.1
Less favorable agriculture conditions	39.6	1.6	38.9	–2.3	34.2	29.9	–7.3

Source: Authors' calculation based on World Bank 2010b.
Notes: Blank cells indicate missing values. Regional and economic aggregate values are calculated as weighted summations, where a country's GDP as a share of regional GDP is used as a weight.

TABLE D:2—LAND AND LABOR PRODUCTIVITY

	Land productivity (1999–2001 International dollars per hectare agricultural land)							Labor productivity (1999–2001 International dollars per agricultural worker)						
Region/Country	**Annual avg. level (1990–1995)**	**Annual avg. change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. change (1995–2003)**	**2003**	**Annual avg. level (2003–2008)**	**Annual avg. change (2003–2008)**	**Annual avg. level (1990–1995)**	**Annual avg. change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. change (1995–2003)**	**2003**	**Annual avg. level (2003–2006)**	**Annual avg. change (2003–2006)**
Africa	80.4	2.2	96.9	2.7	107.7	115.2	2.3	511.0	0.4	559.7	1.5	595.0	616.0	2.1
SSA	72.2	2.6	86.4	2.6	95.4	101.7	2.4	439.5	0.6	476.5	1.4	502.8	519.0	2.3
Central	72.4	0.6	74.3	0.9	76.9	79.2	0.8	337.1	–1.4	316.5	–0.2	312.5	313.5	0.1
Burundi	328.6	–2.4	291.7	–0.7	295.5	310.1	2.1	246.4	–3.2	219.3	–0.7	213.7	204.1	–2.5
Cameroon	192.9	3.5	239.5	2.8	264.7	280.4	1.0	519.7	1.9	600.0	2.1	650.5	687.7	3.3
Central African Rep.	87.5	3.1	110.6	2.2	118.3	123.2	2.5	368.0	1.7	449.3	2.3	483.9	494.5	2.3
Chad	15.3	2.6	20.2	3.0	22.2	22.9	0.5	310.4	0.9	369.1	1.4	382.1	390.8	1.0
Congo, Dem. Rep.	152.5	–1.1	127.6	–1.4	121.6	122.5	0.2	301.1	–3.8	223.9	–2.6	200.6	195.6	–1.8
Congo, Rep.	15.3	2.8	18.2	2.2	20.2	21.9	2.7	308.7	1.4	341.0	1.4	370.1	392.2	4.2
Equatorial Guinea	86.1	–1.7	87.8	0.4	87.5	88.4	0.6							
Gabon	33.5	0.7	37.4	1.4	38.7	39.2	0.7	788.6	0.6	912.2	2.4	980.1	999.9	1.3
Sao Tome & Principe	254.3	5.5	303.9	1.4	304.1	311.3	1.6							
Eastern	64.8	2.4	77.1	2.7	86.5	91.1	2.1	308.9	–0.8	319.7	1.1	339.2	345.2	1.8
Comoros	265.3	1.6	280.8	0.8	289.0	295.9	1.5							
Djibouti	23.4	–4.7	22.0	1.4	23.6	26.3	6.3							
Eritrea	17.3		18.8	–0.8	16.7	21.2	8.4							
Ethiopia	89.4	15.5	144.0	3.2	163.1	174.7	2.8	169.1	–3.7	180.6	1.5	194.8	206.6	4.4
Kenya	119.4	1.1	134.7	3.0	152.5	166.4	3.3	332.0	–1.9	310.8	1.0	330.2	342.9	3.5
Madagascar	50.8	0.6	48.7	–2.0	46.2	51.5	2.9	385.6	–1.5	342.6	–2.6	310.5	329.7	4.4
Mauritius	1468.8	0.3	1574.2	1.7	1737.0	1756.6	0.0	2382.7	1.6	2792.4	3.0	3194.0	3299.7	0.4
Rwanda	553.3	–6.0	620.9	4.5	705.8	725.6	2.0	338.2	–5.6	311.9	0.5	328.1	329.9	3.2
Seychelles	1037.6	5.8	1236.0	–2.3	1050.8	900.4	–5.2							
Somalia	23.4	0.3	26.7	0.9	27.9	28.2	–0.2							
Sudan	29.6	6.4	39.0	3.6	44.3	45.1	–0.2	547.7	6.0	696.3	2.7	763.2	771.9	–0.9
Tanzania	87.0	0.1	99.5	3.0	119.5	129.3	4.6	244.6	–2.7	242.1	1.4	275.8	283.2	6.4
Uganda	308.8	2.2	359.8	3.1	396.3	384.2	–0.6	473.5	0.3	492.3	1.3	508.2	482.4	–3.5
Northern	137.9	0.7	170.9	3.2	195.7	212.2	2.3	1250.4	–0.1	1459.9	2.2	1618.4	1702.4	2.1
Algeria	67.0	1.6	78.5	2.7	93.8	101.0	0.0	1303.9	–1.4	1272.7	0.0	1383.3	1475.1	1.6
Egypt	3271.1	–1.5	3881.2	3.0	4291.4	4613.4	3.1	1251.9	2.6	1568.1	2.7	1728.1	1798.0	2.5

TABLE D:2—CONTINUED

Region/Country	Land productivity (1999–2001 International dollars per hectare agricultural land)							Labor productivity (1999–2001 International dollars per agricultural worker)						
	Annual avg. level (1990–1995)	Annual avg. change (1990–1995)	Annual avg. level (1995–2003)	Annual avg. change (1995–2003)	2003	Annual avg. level (2003–2008)	Annual avg. change (2003–2008)	Annual avg. level (1990–1995)	Annual avg. change (1990–1995)	Annual avg. level (1995–2003)	Annual avg. change (1995–2003)	2003	Annual avg. level (2003–2006)	Annual avg. change (2003–2006)
Libya	40.7	2.8	49.1	0.8	50.0	51.5	1.5	4862.6	5.6	6960.5	3.5	7968.0	8486.8	3.9
Mauritania	6.5	0.1	7.5	2.3	8.2	8.5	0.9							
Morocco	125.6	–3.8	144.1	3.7	174.0	186.1	1.2	930.3	–3.9	1044.1	3.3	1234.1	1312.5	3.0
Tunisia	194.3	–6.3	219.9	2.0	234.6	262.1	0.9	2131.4	–7.0	2253.6	1.5	2377.6	2593.6	–1.1
Southern	45.4	–0.6	52.5	2.4	55.7	58.8	2.5	533.2	–1.8	572.3	1.7	597.1	610.1	1.5
Angola	11.8	4.4	16.6	7.2	22.1	25.1	4.7	194.0	2.0	235.2	5.0	288.6	301.3	2.6
Botswana	6.6	1.0	6.3	–1.7	6.2	6.5	1.7	594.9	–1.9	481.9	–3.3	456.1	473.3	3.3
Lesotho	38.8	1.4	42.8	0.6	41.0	40.7	–1.7							
Malawi	214.2	1.7	289.0	3.6	304.9	353.1	6.9	217.9	1.0	297.8	3.7	313.8	331.5	3.8
Mozambique	16.7	2.4	25.5	3.0	28.2	30.5	2.0	127.8	–1.0	165.8	1.2	173.2	181.7	2.8
Namibia	7.8	2.2	7.5	–0.4	7.3	7.4	0.7	1031.2	1.0	938.5	–0.8	920.2	929.6	0.3
South Africa	72.5	–1.3	79.7	2.6	86.7	90.9	2.5	3740.8	–0.1	4538.0	4.5	5347.8	5715.5	4.8
Swaziland	150.5	–3.0	144.1	0.7	151.6	157.2	0.8	1615.4	–4.2	1471.4	0.3	1546.7	1624.7	3.7
Zambia	28.8	–0.9	31.2	2.9	35.7	39.8	2.3	213.9	–1.9	224.9	2.8	258.3	283.9	4.3
Zimbabwe	96.7	–2.2	107.6	–0.4	92.3	84.0	–3.1	388.2	–2.5	439.2	0.4	395.9	378.1	–3.2
Western	130.6	4.3	161.7	2.6	178.1	190.3	2.1	636.9	3.4	751.2	2.0	810.7	855.0	3.5
Benin	364.6	4.6	407.3	0.5	425.5	418.8	–0.4	613.1	4.8	824.7	3.3	940.7	919.6	–3.1
Burkina Faso	106.1	3.8	130.5	3.6	149.1	156.4	–0.3	228.8	1.2	258.2	3.0	288.0	301.8	2.5
Cape Verde	308.6	2.1	356.6	1.5	358.4	375.0	1.4							
Cote d'Ivoire	160.5	1.1	198.4	2.7	209.8	217.5	1.7	1027.0	0.8	1245.8	2.5	1323.5	1377.8	3.2
Gambia, The	115.5	0.7	135.9	6.3	161.3	169.6	–2.0	175.3	–2.5	175.9	3.2	179.5	192.3	0.1
Ghana	175.5	7.6	228.1	3.2	262.9	279.8	2.7	494.7	5.3	599.6	2.5	666.3	677.9	1.0
Guinea	68.5	3.9	81.1	2.2	88.3	95.6	3.2	287.0	0.9	308.1	1.7	330.6	347.3	3.3
Guinea-Bissau	81.7	1.5	94.7	2.4	102.9	111.6	3.1	286.8	–0.4	308.1	1.5	316.0	322.0	1.9
Liberia	58.0	–4.7	80.0	6.4	89.2	96.3	3.7							
Mali	37.2	–0.6	40.3	2.0	44.6	49.1	2.7	308.4	0.0	340.4	1.6	364.0	376.4	–1.6
Niger	28.8	1.0	38.2	5.9	44.9	48.9	5.7	286.8	–0.4	331.4	3.7	360.5	369.0	2.3
Nigeria	221.4	6.1	288.6	2.7	319.4	344.3	2.1	1082.0	5.8	1375.9	2.9	1559.6	1704.6	6.4
Senegal	93.6	2.1	102.4	0.4	95.7	113.3	3.0	311.8	–0.4	295.1	–1.5	253.2	283.2	0.1

TABLE D:2—CONTINUED

Region/Country	Land productivity (1999–2001 International dollars per hectare agricultural land)							Labor productivity (1999–2001 International dollars per agricultural worker)						
	Annual avg. level (1990–1995)	Annual avg. change (1990–1995)	Annual avg. level (1995–2003)	Annual avg. change (1995–2003)	2003	Annual avg. level (2003–2008)	Annual avg. change (2003–2008)	Annual avg. level (1990–1995)	Annual avg. change (1990–1995)	Annual avg. level (1995–2003)	Annual avg. change (1995–2003)	2003	Annual avg. level (2003–2006)	Annual avg. change (2003–2006)
Sierra Leone	113.2	–1.5	104.4	–1.3	109.7	123.9	3.7	316.5	–0.7	298.9	–1.0	325.2	376.3	11.6
Togo	128.0	2.7	150.4	0.9	158.4	158.5	0.6	422.7	2.1	475.1	–0.2	475.2	459.5	–2.7
Middle-income countries	92.7	2.5	114.0	2.9	127.7	137.5	2.3	1010.5	1.8	1190.5	2.3	1307.4	1379.1	3.1
Mineral-rich countries	88.3	–0.3	83.9	0.2	85.5	90.0	1.9	291.5	–2.3	253.8	–0.6	250.6	256.1	1.4
More favorable agriculture conditions	93.2	4.3	116.7	2.6	129.2	136.8	2.4	282.7	–0.8	301.7	1.3	319.2	325.5	2.0
Less favorable agriculture conditions	29.1	–1.8	33.3	3.3	37.3	39.7	2.8	298.5	–1.6	316.7	1.6	333.7	338.4	0.6

Source: Authors' calculation based on FAO 2010.
Notes: Blank cells indicate missing values

TABLE D:3—CEREAL YIELDS (KG/HA)

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2008)	Annual average change (2003–2008)
Africa	1157.8	–0.7	1260.9	1.4	1344.2	1372.2	0.8
SSA	1019.0	–0.5	1097.3	1.1	1144.3	1187.6	1.8
Central	834.0	–0.8	894.1	1.5	944.3	932.4	–0.7
Burundi	1349.1	–0.8	1329.5	–0.5	1341.9	1332.4	–0.7
Cameroon	1100.0	–2.8	1556.5	4.6	1622.1	1434.1	–4.0
Central African Rep.	892.6	1.0	975.9	2.4	1060.3	1122.1	1.5
Chad	623.4	1.2	638.9	2.4	710.8	823.9	1.4
Congo, Dem. Rep.	788.4	–0.7	784.8	–0.1	771.7	771.6	0.0
Congo, Rep.	716.7	3.3	789.2	–0.5	779.1	761.7	–0.1
Equatorial Guinea							
Gabon	1780.3	2.9	1629.3	–3.6	1521.3	1650.0	0.3
Sao Tome & Principe	2162.6	2.6	2154.7	–0.4	2128.1	2247.3	2.2
Eastern	1066.7	–3.7	1060.7	1.0	1129.5	1140.5	2.2
Comoros	1313.2	0.9	1327.5	0.0	1334.0	1325.0	–0.5
Djibouti	1666.6	0.0	1690.4	0.3	1666.6	1638.8	0.3

TABLE D:3—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2008)	Annual average change (2003–2008)
Eritrea	243.5		487.1	–7.2	216.5	428.1	15.9
Ethiopia	1170.4	–4.6	1173.7	0.9	1214.6	1353.4	5.6
Kenya	1677.9	2.3	1518.5	0.0	1629.4	1647.1	–1.8
Madagascar	1937.2	0.1	1987.9	0.7	2174.0	2350.6	0.3
Mauritius	4029.3	–1.3	6029.8	8.3	6930.7	7618.4	6.2
Rwanda	1148.0	0.7	1006.6	–3.1	977.3	1076.2	3.8
Seychelles							
Somalia	537.4	–9.3	609.0	7.3	651.9	483.0	–8.9
Sudan	537.4	–4.2	527.5	2.7	596.0	624.3	–0.2
Tanzania	1318.0	1.5	1499.7	–1.5	1374.9	1117.6	4.5
Uganda	1511.5	1.1	1516.8	3.0	1594.7	1543.3	–1.0
Northern	2018.3	2.0	2365.6	2.8	2694.6	2665.6	–0.1
Algeria	844.4	–1.4	1042.5	4.0	1291.0	1388.4	–2.8
Egypt	5829.1	0.9	6923.6	2.7	7505.7	7515.0	–0.2
Libya	694.3	–0.4	670.7	–2.2	619.9	620.1	–0.2

TABLE D:3—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2008)	Annual average change (2003–2008)
Mauritania	782.3	–1.8	812.7	–1.1	945.3	805.9	–0.7
Morocco	979.2	–12.4	955.1	3.9	1337.8	1090.4	–11.5
Tunisia	1234.7	–5.7	1305.0	3.9	1436.6	1461.4	–2.2
Southern	1296.2	0.1	1538.8	2.4	1575.9	1619.7	1.9
Angola	350.6	–0.8	605.5	3.3	596.8	536.2	–4.7
Botswana	339.8	4.5	386.5	5.5	718.1	670.6	–14.8
Lesotho	779.3	2.1	925.9	–5.0	647.8	565.2	–4.9
Malawi	1051.3	5.3	1325.2	–1.2	1091.7	1419.6	14.3
Mozambique	454.8	12.2	842.7	1.8	863.6	852.1	–2.6
Namibia	343.2	–12.5	333.1	4.9	376.0	399.8	4.8
South Africa	1828.6	0.6	2338.8	5.1	2695.0	2717.3	5.8
Swaziland	1453.1	9.2	1602.4	–8.7	1085.0	1017.8	–14.1
Zambia	1467.6	1.7	1488.5	0.7	1645.4	1881.1	3.7
Zimbabwe	1143.9	–10.7	1046.3	–2.3	808.5	2396.9	–15.5
Western	916.8	1.5	1002.7	0.9	1049.9	1133.9	2.2
Benin	933.7	4.4	1077.4	0.0	1080.1	1195.3	3.1
Burkina Faso	820.5	4.4	893.3	2.2	959.8	1039.9	0.7
Cape Verde	293.6	–3.0	443.3	6.6	304.2	265.8	–13.1
Cote d'Ivoire	888.5	0.8	1471.0	9.3	1810.6	1776.0	–2.1
Gambia, The	1118.0	0.6	1125.5	1.9	1113.8	934.5	–6.1
Ghana	1212.3	6.1	1326.2	–0.3	1372.9	1365.2	–1.2
Guinea	1425.3	0.0	1468.0	0.1	1453.3	1470.4	1.7
Guinea-Bissau	1469.2	–2.5	1144.3	–3.2	1143.6	1238.0	4.5
Liberia	1028.8	3.5	1148.0	–3.9	888.8	1217.3	13.6
Mali	818.4	–0.5	1013.0	–0.9	878.6	953.6	4.9
Niger	317.2	–1.2	354.0	5.2	400.5	436.1	3.8
Nigeria	1150.2	1.0	1224.8	0.8	1312.3	1434.8	3.2
Senegal	811.5	0.7	812.5	2.0	905.5	955.3	–3.6
Sierra Leone	1202.1	–0.7	1107.6	–2.9	1003.2	977.5	–0.3

TABLE D:3—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2008)	Annual average change (2003–2008)
Togo	803.5	1.4	1003.6	4.7	1126.8	1168.6	0.0
Middle-income countries	1324.3	–1.0	1484.8	2.5	1673.5	1672.1	–1.0
Mineral-rich countries	1090.1	0.0	1114.1	0.0	1126.9	1165.0	0.9
More favorable agriculture conditions	1177.9	0.1	1238.8	0.3	1242.9	1284.5	3.9
Less favorable agriculture conditions	509.1	–1.0	563.4	2.4	585.7	628.3	2.1

Source: Authors' calculation based on FAO 2010.
Notes: Blank cells indicate missing values. Regional and economic aggregate values are calculated as weighted summations, where a country's area harvest (ha) as a share of the regional total area is used as a weight.

TABLE D:4—AGRICULTURE PRODUCTION INDEX (API) (NET BASE 1999–2001)

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2009)	Annual average change (2003–2009)
Africa	79.5	2.6	97.9	3.0	111.4	122.6	2.8
SSA	78.8	3.8	97.1	3.0	108.9	118.4	2.6
Central	100.2	0.2	99.3	0.7	102.6	102.9	–1.1
Burundi	109.2	–2.2	102.2	0.5	107.7	109.4	0.3
Cameroon	78.0	3.5	96.6	2.7	106.3	112.4	0.8
Central African Rep.	74.7	3.1	96.4	2.7	104.7	110.7	2.4
Chad	74.2	2.8	98.8	3.1	108.7	113.7	0.9
Congo, Dem. Rep.	123.0	–1.3	101.1	–1.5	96.3	96.9	0.1
Congo, Rep.	82.0	2.9	97.4	2.1	107.7	117.9	2.5
Equatorial Guinea	95.5	–1.7	96.9	0.0	94.3	93.4	–0.5
Gabon	92.5	–0.4	97.3	1.4	100.7	102.0	0.4
Sao Tome & Principe	67.8	6.9	94.0	4.5	103.7	106.4	1.3
Eastern	73.4	7.6	97.8	3.3	112.6	121.7	2.3
Comoros	85.0	2.4	96.8	2.0	103.0	107.3	1.8
Djibouti	91.3	–2.7	98.7	3.7	114.3	130.6	5.6

TABLE D:4—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2009)	Annual average change (2003–2009)
Eritrea	85.7		93.7	–0.5	84.0	110.3	7.4
Ethiopia	75.3		97.2	3.6	113.7	132.4	4.5
Kenya	87.3	1.5	97.8	3.0	111.0	122.3	2.4
Madagascar	95.3	1.1	99.0	–0.4	98.3	109.9	2.2
Mauritius	98.7	–0.3	101.9	0.8	106.3	104.7	–0.9
Rwanda	87.0	–11.2	94.2	7.5	118.7	126.0	2.9
Seychelles	78.8	7.1	97.2	–2.8	78.0	55.4	–11.3
Somalia	86.8	0.3	99.3	1.0	104.0	104.9	–0.3
Sudan	69.5	7.8	97.7	4.0	112.3	115.9	0.3
Tanzania	86.3	0.1	98.8	3.1	118.7	128.3	3.3
Uganda	80.2	2.4	95.8	3.7	108.3	108.0	0.6
Northern	80.4	0.9	99.1	3.1	114.8	127.9	2.7
Algeria	83.5	2.9	100.8	2.5	121.0	137.9	2.6
Egypt	72.2	4.0	96.1	3.4	109.3	122.9	3.9
Libya	82.7	3.8	101.0	–0.3	101.3	104.7	1.0
Mauritania	86.0	0.0	98.8	2.4	109.0	112.9	0.9
Morocco	91.0	–3.6	103.9	3.7	124.7	134.3	1.1
Tunisia	85.2	–5.5	98.8	2.4	108.0	120.0	–0.2
Southern	81.4	–0.1	95.5	3.0	105.2	117.8	4.0
Angola	69.5	4.4	97.6	7.2	130.0	154.3	6.1
Botswana	112.5	0.9	106.1	–1.7	105.3	110.7	1.3
Lesotho	84.0	1.7	93.1	0.5	88.3	86.3	–2.6
Malawi	59.3	1.1	86.9	5.3	95.3	115.6	7.3
Mozambique	61.5	2.5	96.0	3.3	107.7	117.9	1.9
Namibia	104.3	2.0	98.9	–0.4	97.3	99.1	0.9
South Africa	85.3	–1.3	96.1	3.0	106.0	111.9	2.3
Swaziland	106.0	–3.4	100.4	0.6	105.7	109.9	0.6
Zambia	83.0	–0.2	95.0	3.8	112.0	128.1	3.0
Zimbabwe	74.8	–1.0	90.0	0.8	81.7	75.1	–2.5

TABLE D:4—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2009)	Annual average change (2003–2009)
Western	73.0	3.6	95.5	3.8	108.1	117.9	2.7
Benin	66.0	6.9	97.2	4.4	115.3	111.4	–1.1
Burkina Faso	74.8	3.6	98.9	5.5	120.3	132.0	1.9
Cape Verde	67.0	3.8	88.6	2.8	91.0	103.1	5.3
Cote d'Ivoire	74.8	2.0	94.3	2.5	99.3	105.4	1.9
Gambia, The	62.3	0.9	76.3	5.9	85.3	94.9	2.1
Ghana	67.0	8.4	96.7	4.9	117.3	131.9	4.3
Guinea	78.8	4.1	95.9	2.8	106.0	118.7	3.6
Guinea-Bissau	75.0	2.1	94.0	3.7	105.3	116.3	2.8
Liberia	62.3	–5.1	87.2	7.1	98.3	108.1	3.5
Mali	80.2	1.7	99.3	3.3	113.7	129.9	4.2
Niger	67.0	2.5	96.3	7.2	118.3	146.6	8.5
Nigeria	73.8	6.4	96.2	3.2	109.3	123.7	3.4
Senegal	76.0	2.1	83.1	0.5	78.0	100.4	6.4
Sierra Leone	119.3	–1.4	113.9	0.2	133.3	176.4	7.3
Togo	78.0	3.2	99.4	2.1	107.3	108.7	1.1
Middle-income countries	80.1	1.3	98.1	3.1	112.0	123.3	2.6
Mineral-rich countries	106.9	–0.4	99.2	0.3	102.0	107.4	1.0
More favorable agriculture conditions	71.8	7.4	97.0	3.3	111.3	123.9	3.4
Less favorable agriculture conditions	81.6	–0.7	98.2	4.1	113.2	122.9	2.7

Source: Authors' calculation based on FAO 2010.
Notes: Blank cells indicate missing values. Regional and economic aggregate values are calculated as weighted summations, where a country's agricultural GDP as a share in the regional total GDP is used as a weight.

TABLE D:5—TOTAL FERTILIZER USE (KG/HA)

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2007)	Annual average change (2003–2007)
Africa	25.5	–5.0	26.2	3.0	30.5	29.5	–6.7
SSA	12.8	–5.2	11.0	–1.5	9.8	8.9	–6.2
Central	2.1	7.1	3.3	3.3	4.0	3.2	–4.5
Burundi	3.5	7.7	2.7	–14.5	0.9	1.9	56.4
Cameroon	4.0	9.4	6.9	4.3	8.8	8.6	–8.4
Central African Rep.	0.4	–22.6	0.2				
Chad	2.3	1.1	4.0				
Congo, Dem. Rep.	1.0	9.3	0.4		0.2	0.2	–51.3
Congo, Rep.	3.8	6.5	6.7		0.9	0.5	
Equatorial Guinea	0.0		0.0				
Gabon	1.9	–18.3	1.8	20.9	4.8	6.0	9.9
Sao Tome & Principe							
Eastern	6.6	0.8	8.7	–1.3	7.8	7.1	0.3
Comoros	1.9		3.8				
Djibouti	0.0		0.0				
Eritrea	2.7		11.6	–9.7	2.6	1.5	32.7
Ethiopia	11.0		14.3	–6.2	9.4	6.6	8.2
Kenya	20.1	–4.8	28.1	4.9	35.5	36.5	–6.7
Madagascar	3.7	3.2	3.3	–9.4	2.1	3.1	9.7
Mauritius	281.8	2.4	327.9	–2.4	287.8	274.7	–3.8
Rwanda	1.3		0.2		0.6	3.1	
Seychelles	0.0		9.4		3.7	30.8	
Somalia	0.4		0.4				
Sudan	4.3	–10.9	3.7	–1.4	3.9	3.3	–5.6
Tanzania	4.5	–10.8	3.1	–3.2	4.5	6.5	5.9
Uganda	0.3	40.4	0.9	40.6	1.6	1.5	–6.8
Northern	100.8	1.5	126.8	5.4	159.7	162.7	–4.4
Algeria	13.8	–11.6	10.2	3.1	12.2	15.6	14.8
Egypt	372.7	–3.7	440.6	4.1	570.5	598.2	–6.9

TABLE D:5—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2007)	Annual average change (2003–2007)
Libya	47.8	1.0	39.4	2.5	50.3	51.0	10.7
Mauritania	11.1	–7.2	5.2				
Morocco	34.5	–3.2	42.5	8.4	56.6	45.8	–10.9
Tunisia	31.6	–1.9	34.4	0.6	33.0	42.1	–1.2
Southern	37.3	–2.5	33.5	–1.4	31.7	29.9	–5.6
Angola	2.9	–0.3	1.3		2.7	3.1	11.4
Botswana	3.0	19.5	10.6				
Lesotho	17.2	2.5	21.0				
Malawi	30.0	–11.5	25.7	–0.8	32.3	37.7	3.6
Mozambique	1.4	16.5	3.7	21.1	5.4	4.0	–10.2
Namibia	0.0		0.7		2.8	2.3	9.8
South Africa	54.4	–1.8	51.4	–0.7	51.8	49.6	–5.9
Swaziland	54.6	–18.9	31.0				
Zambia	12.9	–1.6	9.4	1.7	14.5	17.0	12.2
Zimbabwe	51.5	–2.0	50.0	–2.1	37.4	34.6	–1.7
Western	8.5	–6.0	5.9	–1.9	4.4	4.3	–8.0
Benin	10.7	20.3	15.6	–20.3	5.7	0.2	
Burkina Faso	6.3	3.7	7.0	–25.0	3.4	7.0	5.2
Cape Verde	0.0		2.5				
Cote d'Ivoire	18.1	9.8	26.9	1.0	29.6	24.6	–5.7
Gambia, The	4.7	6.6	5.1		5.5	5.9	–39.5
Ghana	3.3	–6.6	5.0	4.8	7.7	10.4	19.1
Guinea	2.9	30.7	3.2	–13.3	1.7	1.6	–2.8
Guinea-Bissau	1.3	–13.0	3.3				
Liberia	0.1		0.0				
Mali	8.6	0.6	7.0		0.0	0.0	
Niger	0.3	45.2	0.4	4.5	0.4	0.4	14.5
Nigeria	12.3	–13.7	6.2	2.2	4.8	5.0	–10.1
Senegal	8.0	10.5	11.7	4.9	11.6	8.5	–32.1

TABLE D:5—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2007)	Annual average change (2003–2007)
Sierra Leone	4.2	32.3	2.9				
Togo	5.7	2.9	7.1	–2.3	5.0	5.8	0.5
Middle-income countries	38.5	–4.9	40.8	4.2	50.5	49.6	–7.3
Mineral-rich countries	3.9	5.8	2.7	–7.2	2.6	2.9	5.8
More favorable agriculture conditions	11.1	4.6	13.6	–2.8	11.2	11.4	1.6
Less favorable agriculture conditions	2.5	3.9	2.3	4.0			

Source: Authors' calculation based on World Bank 2010b.
Notes: Blank cells indicate missing values. Regional and economic aggregate values are calculated as weighted summations, where a country's share of area harvested (ha) in the regional total area is used as a weight.

TABLE D:6—AGRICULTURE, VALUE ADDED (ANNUAL % GROWTH)

Region/Country	Annual avg. (1990–1995)	Annual avg. change (%age point) (1990–1995)	Annual avg. (1995–2003)	Annual avg. change (%age point) (1995–2003)	2003	Annual avg. (2003–2009)	Annual avg. change (%age point) (2003–2009)
Africa	2.8	0.23	4.6	0.66	3.9	4.5	–0.37
SSA	2.2	1.03	4.0	–0.16	2.6	4.1	0.40
Central	3.1	1.50	2.6	–0.67	1.6	2.5	0.04
Burundi	–1.7	–2.47	–1.0	0.41	0.2	1.1	1.39
Cameroon	2.3	1.94	6.0	–0.63	3.6	3.3	0.06
Central African Rep.	2.0	1.07	3.5	–1.12	–0.9	0.2	2.32
Chad	6.2	2.82	3.2	0.84	–0.3		
Congo, Dem. Rep.	3.5	1.80	–0.2	–1.30	0.8	2.3	0.30
Congo, Rep.	0.3	1.01	3.9	–0.04	6.6	4.5	–0.26
Equatorial Guinea	2.8	3.76	6.9	–0.63	4.2	5.4	–1.36
Gabon	1.8	–0.12	1.1	0.35	–0.7	1.7	–0.43
Sao Tome & Principe	0.3	1.58	0.8	0.02	6.4	5.1	–0.07
Eastern	2.0	1.30	4.2	–0.77	1.7	4.0	0.95
Comoros	2.1	0.84	4.9	–0.79	2.8	1.4	0.20

TABLE D:6—CONTINUED

Region/Country	Annual avg. (1990–1995)	Annual avg. change (%age point) (1990–1995)	Annual avg. (1995–2003)	Annual avg. change (%age point) (1995–2003)	2003	Annual avg. (2003–2009)	Annual avg. change (%age point) (2003–2009)
Djibouti	–0.6	–3.86	0.1	2.18	3.5	4.3	0.54
Eritrea	9.3	–2.34	–0.1	–0.02	–7.5	10.5	1.97
Ethiopia	2.5	–0.43	1.9	–1.77	1.5	7.7	2.75
Kenya	0.7	0.26	3.4	–0.30	0.2	2.2	0.09
Madagascar	1.5	–0.04	1.9	–0.07	1.0	2.5	0.32
Mauritius	1.7	–0.43	1.8	–0.73	–2.2	1.8	0.94
Rwanda	–1.7	6.40	10.9	–4.26	3.5	3.8	2.38
Seychelles	–1.5	–3.38	2.5	–0.27	–2.5	2.1	1.81
Somalia	–7.1	–0.73	1.3	0.53	2.9	2.5	0.14
Sudan	1.1	5.24	6.4	–0.71	1.0	2.3	0.67
Tanzania	3.7	–0.15	4.0	–0.23	4.9	5.6	1.32
Uganda	4.0	0.13	3.6	–0.84	–1.6	1.6	–0.16
Northern	3.4	–1.02	5.4	1.89	5.9	5.1	–1.44
Algeria	2.7	4.23	7.4	0.59	7.2	4.5	–2.95
Egypt	2.7	0.03	3.3	–0.01	3.3	3.3	0.06
Libya	3.2	–0.44	2.4	0.24	4.0	6.0	0.58
Mauritania	3.3	6.30	–0.5	–2.56	–4.2	3.7	–0.13
Morocco	–1.2	–7.79	6.1	8.20	10.5	8.6	0.88
Tunisia	4.1	–8.05	4.5	3.93	6.9	4.9	–3.00
Southern	0.6	0.05	3.7	0.63	3.0	4.3	0.84
Angola	–7.4	4.48	11.6	–1.23	12.8	12.5	–0.02
Botswana	0.6	–0.11	–0.2	1.59	–0.2	5.1	1.82
Lesotho	–1.4	–2.57	0.0	0.59	–8.3	0.6	0.90
Malawi	8.5	7.97	9.2	–4.48	0.1	4.2	0.79
Mozambique	2.5	2.85	6.8	–1.24	7.1	7.4	0.22
Namibia	5.5	–2.73	3.1	0.84	5.1	11.3	8.54
South Africa	–3.0	–2.56	1.6	2.58	3.1	1.4	–0.65
Swaziland	–3.3	0.24	3.0	0.89	2.5	1.5	–0.75
Zambia	7.6	8.45	4.6	–3.54	2.5	1.6	–0.85

TABLE D:6—CONTINUED

Region/Country	Annual avg. (1990–1995)	Annual avg. change (%age point) (1990–1995)	Annual avg. (1995–2003)	Annual avg. change (%age point) (1995–2003)	2003	Annual avg. (2003–2009)	Annual avg. change (%age point) (2003–2009)
Zimbabwe	2.8	–3.94	0.0	0.82	–8.9	–5.9	–2.50
Western	2.8	0.92	4.5	0.75	4.4	4.5	–1.06
Benin	4.3	0.29	5.3	0.07	5.1	4.3	0.32
Burkina Faso	5.6	2.58	6.6	0.54	3.5	3.8	–1.21
Cape Verde	–2.5	3.61	4.6	–0.15	–1.2	3.0	–0.16
Cote d'Ivoire	3.3	–0.09	2.8	–0.38	1.0	2.1	0.45
Gambia, The	0.1	0.96	5.1	2.13	2.0	7.0	–2.58
Ghana	1.7	1.14	3.1	–1.03	3.1	3.8	1.71
Guinea	3.8	–0.07	10.6	6.50	20.1	11.7	–10.28
Guinea-Bissau	4.5	0.80	3.3	0.03	4.1	5.2	–0.66
Liberia	–18.4	20.80	21.2	–10.16	–12.3	–1.6	10.11
Mali	1.5	0.73	4.1	1.91	3.1	6.5	–1.53
Niger	2.4	0.83	3.6	0.61	4.9	6.8	0.51
Nigeria	3.1	–0.15	10.0	0.43	22.8	5.8	–1.46
Senegal	1.3	3.77	2.3	1.39	0.0	5.9	–3.09
Sierra Leone	–10.9	–1.77	4.7	2.42	18.4	8.7	–0.48
Togo	2.4	0.51	3.6	–0.80	3.1	1.6	0.48
Middle-income countries	2.5	–0.33	5.1	1.40	4.7	4.5	–0.15
Mineral-rich countries	4.5	2.52	3.3	0.15	5.6	4.1	–2.03
More favorable agriculture conditions	2.6	0.48	3.6	–0.64	2.1	4.6	0.72
Less favorable agriculture conditions	2.4	1.90	4.4	–0.04	1.6	5.8	0.50

Source: Authors' calculation based on UN Statistics Division 2010; World Bank 2010b.
Notes: Regional and economic aggregate values are calculated as weighted summations, where each country's AgGDP as a share of the regional AgGDP is used as a weight.

Annex E: Agricultural Trade

TABLE E:1—RATIO OF THE VALUE OF TOTAL AGRICULTURAL EXPORTS TO TOTAL AGRICULTURAL IMPORTS

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2007)	Annual average change (2003–2007)
Africa	0.7	–1.6	0.7	–1.2	0.7	0.7	–6.4
SSA	1.2	–2.2	1.2	–3.1	1.1	1.0	–7.2
Central	1.0	–1.2	0.9	–8.1	0.6	0.6	–5.4
Burundi	2.6	–11.9	1.9	–8.8	0.8	0.8	–12.0
Cameroon	2.3	6.5	2.6	–14.3	1.6	1.5	–3.5
Central African Rep.	1.0	–5.1	1.0	0.0	0.9	0.7	15.4
Chad	4.4	–9.0	2.9	–8.1	1.6	1.4	–6.7
Congo, Dem. Rep.	0.4	–2.7	0.2	–21.2	0.1	0.1	–0.6
Congo, Rep.	0.1	–13.6	0.1	8.2	0.1	0.2	4.8
Equatorial Guinea	0.4	–6.8	0.4	–18.3	0.1	0.1	–16.2
Gabon	0.0	6.7	0.1	–4.0	0.1	0.1	34.3
Sao Tome & Principe	0.5	3.5	0.4	–1.8	0.3	0.2	–9.8
Eastern	1.7	–1.7	1.5	–7.4	1.2	1.1	–3.9
Comoros	0.7	–19.1	0.3	21.4	0.7	0.5	–33.4
Djibouti	0.1	–14.1	0.1	9.8	0.1	0.1	27.4
Eritrea	0.1	–18.9	0.0	–25.2	0.0	0.0	45.6
Ethiopia	1.0	8.6	1.8	–13.3	1.2	1.4	25.6
Kenya	3.0	–2.3	2.5	–2.1	2.6	2.5	–7.6
Madagascar	2.7	–1.0	1.6	–1.3	1.7	0.9	–17.5
Mauritius	1.6	–6.9	1.2	–3.6	1.0	0.9	–9.1
Rwanda	1.0	–36.0	0.5	7.2	0.5	0.7	12.4
Seychelles	0.0	14.6	0.0	–10.6	0.0	0.0	13.7
Somalia	0.7	4.4	1.0	–7.3	0.7	0.4	–29.2
Sudan	1.8	–0.1	1.3	–11.6	0.9	0.6	–30.4
Tanzania	2.4	–5.7	1.6	–8.7	1.2	1.2	–7.7

TABLE E:1—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2007)	Annual average change (2003–2007)
Uganda	4.0	–16.3	2.1	–15.0	1.1	1.1	22.5
Northern	0.2	–0.9	0.2	2.2	0.2	0.3	–1.6
Algeria	0.0	0.7	0.0	–10.9	0.0	0.0	0.8
Egypt	0.2	4.2	0.2	9.1	0.3	0.3	–8.4
Libya	0.0	–2.6	0.0	–14.6	0.0	0.0	–26.1
Mauritania	0.3	3.2	0.2	–21.6	0.1	0.1	–5.7
Morocco	0.6	–12.6	0.5	0.0	0.5	0.5	–6.2
Tunisia	0.6	–2.5	0.5	0.6	0.6	0.8	9.2
Southern	1.2	–4.8	1.2	–0.2	1.1	1.0	–8.4
Angola	0.0	–8.7	0.0	–19.6	0.0	0.0	12.7
Botswana	0.3	–0.7	0.3	–6.1	0.2	0.3	11.7
Lesotho	0.1	–1.9	0.1	–4.0	0.1	0.1	11.3
Malawi	3.4	–13.2	5.7	–5.6	2.9	3.9	13.1
Mozambique	0.2	–2.1	0.2	3.5	0.3	0.5	24.9
Namibia	1.7	4.1	1.0	–3.2	1.2	0.9	–28.5
South Africa	1.4	–9.8	1.5	4.5	1.5	1.3	–10.7
Swaziland	3.0	–4.4	1.7	–11.8	1.0	1.1	5.7
Zambia	0.5	–6.0	0.8	9.4	1.3	1.5	10.0
Zimbabwe	7.0	–7.0	5.3	–2.2	2.5	1.8	–22.4
Western	1.1	–1.1	1.2	–1.8	1.1	1.0	–8.8
Benin	0.8	10.2	1.2	–2.9	1.1	0.9	–32.6
Burkina Faso	0.7	–24.1	0.9	38.3	1.9	1.6	–17.0
Cape Verde	0.0	–49.7	0.0	–2.0	0.0	0.0	40.0
Cote d'Ivoire	4.1	7.1	5.3	0.8	5.4	4.3	–8.7
Gambia, The	0.2	2.3	0.2	6.3	0.2	0.2	–10.8
Ghana	1.7	–1.4	2.3	–9.2	1.8	1.6	–8.7
Guinea	0.2	7.7	0.2	–6.2	0.2	0.2	9.1
Guinea-Bissau	0.6	11.2	1.1	4.8	1.0	1.1	–3.5
Liberia	0.3	–21.2	0.7	25.2	0.9	0.7	–11.0

TABLE E:1—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average change (1990–1995)	Annual average level (1995–2003)	Annual average change (1995–2003)	2003	Annual average level (2003–2007)	Annual average change (2003–2007)
Mali	2.4	2.3	1.9	–6.0	1.8	1.5	–18.5
Niger	0.5	6.8	0.6	–5.4	0.4	0.4	–6.8
Nigeria	0.3	0.7	0.3	–7.9	0.2	0.2	–5.9
Senegal	0.4	–10.4	0.2	2.0	0.2	0.2	2.6
Sierra Leone	0.1	–9.4	0.1	–6.6	0.1	0.1	23.1
Togo	1.5	14.1	1.6	–4.9	1.2	1.2	–3.7
Middle-income countries	0.5	–2.2	0.6	0.1	0.6	0.6	–7.6
Mineral-rich countries	0.4	–4.5	0.4	0.1	0.4	0.4	1.5
More favorable agriculture conditions	1.8	–0.9	1.9	–5.2	1.5	1.4	–5.8
Less favorable agriculture conditions	1.1	–4.2	0.9	–6.8	0.7	0.6	–13.7

Source: Authors' calculation based on FAO 2010.

TABLE E:2—PER CAPITA AGRICULTURAL TRADE (USD)

	Per capita agricultural exports (USD)							Per capita agricultural imports (USD)						
Region/Country	**Annual avg. level (1990–1995)**	**Annual avg. change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. change (1995–2003)**	**2003**	**Annual avg. level (2003–2007)**	**Annual avg. change (2003–2007)**	**Annual avg. level (1990–1995)**	**Annual avg. change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. change (1995–2003)**	**2003**	**Annual avg. level (2003–2007)**	**Annual avg. change (2003–2007)**
Africa	17.8	1.5	19.3	–2.5	20.2	23.5	5.8	25.3	3.1	26.5	–1.3	28.2	35.3	13.1
SSA	19.0	1.4	20.5	–2.8	20.9	23.9	4.6	15.4	3.7	16.8	0.2	19.6	25.4	12.8
Central	10.6	–2.7	9.2	–6.9	8.2	9.2	4.9	10.4	–1.6	10.4	1.3	12.8	15.9	11.0
Burundi	13.6	4.7	7.7	–13.9	3.6	5.6	17.5	5.6	18.8	4.1	–5.7	4.7	8.6	33.5
Cameroon	31.0	–2.4	31.7	–3.8	33.7	36.4	3.1	13.8	–8.3	14.3	12.2	21.5	25.1	6.8
Central African Rep.	13.1	–3.0	9.9	–13.9	5.5	5.7	25.5	13.1	2.2	10.0	–13.9	6.5	7.9	8.8
Chad	19.3	–2.5	16.9	–9.5	11.8	11.2	–3.9	4.7	7.2	6.1	–1.5	7.2	8.2	2.9
Congo, Dem. Rep.	38.5	–2.7	20.7	–22.9	8.6	10.2	12.2	5.4	–1.4	4.9	–2.8	5.7	7.1	12.1
Congo, Rep.	1.4	–13.6	1.6	12.7	2.5	3.6	13.6	40.8	0.6	48.2	5.8	66.8	84.1	10.1
Equatorial Guinea	0.1	–16.3	0.1	–6.5	0.1	0.1	–6.3	34.3	–11.5	37.2	13.2	77.0	102.4	10.8
Gabon	0.1	7.9	0.2	–8.0	0.1	0.5	60.3	132.9	1.3	133.5	–3.8	126.5	176.7	20.1
Sao Tome & Principe	0.7	14.8	0.6	–2.2	0.6	0.6	–7.3	66.6	2.5	85.4	4.4	121.1	135.4	3.2
Eastern	15.4	4.7	15.6	–6.1	13.7	17.1	10.6	9.0	6.5	10.8	1.4	12.0	16.4	15.0
Comoros	29.0	–14.9	13.9	16.7	34.9	28.9	–27.9	46.0	5.2	44.9	–3.9	51.7	63.0	8.2
Djibouti	0.4	–12.9	0.5	14.3	1.0	1.6	49.0	143.8	2.8	175.6	3.9	219.5	280.5	17.4
Eritrea	11.6	–5.9	4.8	–23.5	2.4	3.3	19.9	13.5		18.0	2.1	24.4	23.1	–18.4
Ethiopia	76.1	11.4	106.1	–6.2	103.6	163.4	21.1	4.6	–0.6	4.1	8.8	5.8	7.1	–2.6
Kenya	128.0	8.1	138.3	–3.4	131.5	176.2	12.7	11.9	11.5	14.9	–1.8	12.9	18.6	21.2
Madagascar	87.0	8.0	56.8	–1.9	52.9	46.4	–2.0	5.4	3.2	6.3	2.8	6.5	11.6	19.8
Mauritius	42.1	–0.7	36.3	–6.7	32.1	32.5	–2.3	221.9	7.4	268.0	–2.3	291.0	348.1	9.3
Rwanda	0.6	–26.3	0.3	3.0	0.2	0.4	29.5	11.5	25.4	9.2	–7.7	7.0	8.4	15.5
Seychelles	0.1	20.0	0.2	–10.6	0.1	0.2	31.3	508.4	6.1	673.7	1.3	774.1	940.9	17.7
Somalia	16.2	7.8	25.9	–5.6	19.3	15.2	–7.2	15.0	3.1	15.6	1.3	17.5	30.6	32.7
Sudan	12.2	–1.0	10.5	–6.2	9.8	9.5	–9.4	9.1	–1.5	10.5	5.9	13.6	21.3	28.9
Tanzania	342.3	8.8	419.9	–5.2	356.2	457.1	11.5	5.0	14.2	8.8	2.9	8.8	11.9	18.5
Uganda	11.8	17.3	14.6	–18.6	9.0	13.8	41.1	3.5	40.1	7.0	–4.3	8.5	12.3	15.1
Northern	12.7	2.3	13.9	–0.4	17.0	22.1	12.0	67.3	3.3	70.3	–2.5	68.5	82.2	13.8
Algeria	2.6	5.8	1.9	–12.5	1.9	2.6	10.8	101.5	5.1	94.2	–1.7	106.0	123.9	9.9
Egypt	746.2	3.9	861.8	3.9	1293.4	1489.8	5.9	45.4	–0.2	50.1	–3.9	41.3	49.1	15.5

TABLE E:2—CONTINUED

	Per capita agricultural exports (USD)							Per capita agricultural imports (USD)						
Region/Country	**Annual avg. level (1990–1995)**	**Annual avg. change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. change (1995–2003)**	**2003**	**Annual avg. level (2003–2007)**	**Annual avg. change (2003–2007)**	**Annual avg. level (1990–1995)**	**Annual avg. change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. change (1995–2003)**	**2003**	**Annual avg. level (2003–2007)**	**Annual avg. change (2003–2007)**
Libya	26.3	–6.7	19.0	–18.7	6.2	4.7	–14.9	265.1	–4.7	215.8	–5.2	168.8	201.0	13.8
Mauritania	4.7	–0.6	2.6	–18.0	1.2	1.3	1.2	66.8	–5.0	80.3	4.9	103.6	107.2	7.5
Morocco	297.0	–1.3	326.0	–2.6	324.2	410.7	10.0	44.9	14.0	57.8	–1.1	61.1	80.4	19.0
Tunisia	47.2	6.4	48.2	–0.7	61.9	98.3	24.3	78.5	9.1	95.1	–1.3	107.5	128.9	13.8
Southern	37.4	0.7	38.9	–2.7	39.1	46.3	5.7	31.7	5.8	32.3	–2.5	36.9	48.6	15.3
Angola	0.4	–15.8	0.3	–17.5	0.1	0.3	27.1	38.0	–7.8	36.8	2.5	53.4	67.3	12.8
Botswana	66.5	5.5	64.5	–9.7	31.6	39.0	16.7	205.7	6.2	218.4	–3.8	150.7	142.8	4.5
Lesotho	11.5	–3.5	6.0	–11.6	3.8	3.3	–7.8	87.2	–0.5	74.8	–7.3	53.3	37.8	–16.0
Malawi	79.0	–6.2	81.7	–2.8	70.7	90.3	12.4	12.6	8.9	8.2	1.9	11.5	10.2	–1.4
Mozambique	43.6	3.9	51.1	5.7	82.6	163.1	37.8	18.7	3.9	13.5	0.5	17.4	19.7	8.4
Namibia	7.4	5.4	7.3	–3.2	7.6	7.2	–8.4	75.0	0.2	124.3	–0.9	96.9	151.5	27.0
South Africa	285.6	3.9	328.1	–1.5	363.2	433.6	5.3	37.0	12.4	38.3	–5.3	43.0	62.2	19.3
Swaziland	10.5	–7.0	8.3	–6.7	6.8	7.5	–1.0	108.4	–2.4	168.6	6.4	227.7	238.4	–5.3
Zambia	3.4	–3.9	8.9	14.1	18.6	24.0	8.6	8.7	2.3	11.5	4.3	14.8	16.5	–1.3
Zimbabwe	68.5	4.7	74.4	–5.4	58.7	60.7	–2.9	15.8	12.6	16.1	–3.3	25.3	47.7	25.2
Western	16.2	0.7	20.2	0.3	23.8	25.2	0.5	15.1	1.8	17.3	2.2	21.2	26.7	10.3
Benin	21.4	12.9	31.5	–3.1	32.2	34.3	–4.2	29.1	2.4	26.7	–0.2	28.1	53.1	42.1
Burkina Faso	9.2	–17.6	11.1	26.2	20.5	22.2	–3.9	13.2	8.5	15.3	–8.7	10.8	15.6	15.7
Cape Verde	2.8	–44.6	0.6	–1.9	0.6	2.2	57.7	159.4	10.1	189.7	0.1	223.1	301.5	12.7
Cote d'Ivoire	40.3	0.9	49.8	0.0	56.1	54.2	–1.3	29.5	–5.4	28.1	–0.8	31.7	39.3	9.0
Gambia, The	0.6	0.9	0.4	1.9	0.5	0.5	0.9	84.5	–1.8	59.5	–5.0	70.3	91.8	12.9
Ghana	359.0	–4.2	508.5	3.0	750.3	950.8	7.1	13.0	–2.5	16.0	13.4	26.8	38.5	17.0
Guinea	39.5	18.0	34.3	–12.0	27.5	45.2	22.5	24.3	9.3	22.1	–4.8	22.0	29.5	13.4
Guinea-Bissau	1.0	14.1	2.1	9.4	2.5	2.8	0.8	27.7	2.8	27.5	4.5	36.2	38.3	4.2
Liberia	0.8	–17.6	1.7	19.8	2.6	2.7	–0.2	42.3	10.6	33.2	–7.8	30.2	42.1	11.0
Mali	21.2	–3.0	18.6	–1.4	21.9	21.5	–10.8	12.0	–4.2	14.2	5.8	17.6	22.2	9.9
Niger	3.1	–17.2	4.5	–3.9	4.2	3.8	–4.4	11.2	–22.4	13.5	0.9	15.8	17.5	1.4
Nigeria	176.8	10.5	259.3	–2.8	253.6	289.4	–0.9	7.9	9.8	11.4	5.2	14.9	17.3	4.9
Senegal	1118.9	–11.8	895.5	4.6	1094.1	1375.3	13.0	47.5	–2.4	52.0	1.6	65.7	81.7	9.0

TABLE E:2—CONTINUED

	Per capita agricultural exports (USD)							Per capita agricultural imports (USD)						
Region/Country	**Annual avg. level (1990–1995)**	**Annual avg. change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. change (1995–2003)**	**2003**	**Annual avg. level (2003–2007)**	**Annual avg. change (2003–2007)**	**Annual avg. level (1990–1995)**	**Annual avg. change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. change (1995–2003)**	**2003**	**Annual avg. level (2003–2007)**	**Annual avg. change (2003–2007)**
Sierra Leone	228.8	–4.7	126.7	–8.0	130.1	199.9	18.8	27.8	7.3	33.4	–2.3	28.8	26.1	–6.0
Togo	25.1	–5.0	23.3	–6.6	20.4	24.6	9.8	18.6	–16.7	14.4	–1.8	17.3	26.1	14.0
Middle-income countries	20.8	1.0	22.9	–1.5	25.3	28.7	4.4	38.7	3.2	41.1	–1.6	43.1	53.1	13.0
Mineral-rich countries	3.8	–1.6	3.8	–3.1	4.5	5.7	9.2	10.7	3.1	10.2	–3.2	10.7	12.9	7.6
More favorable agriculture conditions	17.6	4.2	19.7	–3.8	18.9	23.8	9.8	9.9	5.1	10.4	1.5	12.4	17.6	16.6
Less favorable agriculture conditions	14.8	–3.7	12.8	–5.5	11.6	11.5	–5.3	13.1	0.5	14.8	1.3	17.4	21.1	9.7

Source: Authors' calculation based on World Bank 2010b; FAO 2010.

TABLE E:3—AGRICULTURAL TRADE SHARES IN MERCHANDISE TRADE

	Agricultural exports share in merchandise exports (%)							Agricultural imports share in merchandise imports (%)						
Region/Country	**Annual avg. level (1990–1995)**	**Annual avg. change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. change (1995–2003)**	**2003**	**Annual avg. level (2003–2007)**	**Annual avg. change (2003–2007)**	**Annual avg. level (1990–1995)**	**Annual avg. change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. change (1995–2003)**	**2003**	**Annual avg. level (2003–2007)**	**Annual avg. change (2003–2007)**
Africa	12.1	4.9	11.8	–5.3	9.6	7.3	–11.5	17.3	1.4	15.9	–2.0	14.5	12.8	–1.9
SSA	15.7	3.0	15.4	–4.5	12.7	9.6	–11.7	13.8	1.9	13.2	–0.6	12.9	11.6	–2.7
Central	12.2	2.1	10.0	–11.4	6.0	4.0	–12.8	19.7	7.6	18.5	–4.1	15.9	14.6	–4.4
Burundi	92.0	–0.2	82.0	–2.0	65.9	79.1	6.1	14.9	22.7	19.2	1.5	25.5	20.9	–9.2
Cameroon	22.6	4.2	26.9	–4.1	25.8	22.1	–3.6	14.7	1.7	14.6	6.5	16.7	15.4	–3.6
Central African Rep.	29.5	–7.5	22.6	–9.5	15.9	16.5	10.7	26.3	2.9	23.3	–4.4	20.2	17.3	–11.8
Chad	72.4	4.3	60.4	–11.3	25.5	5.9	–30.9	10.9	21.4	12.7	–13.6	7.1	7.7	–6.1
Congo, Dem. Rep.	18.9	18.4	13.7	–33.1	2.0	1.7	–3.1	46.9	22.4	43.0	–14.3	23.1	21.2	–0.5
Congo, Rep.	1.1	–12.0	1.0	6.8	1.1	1.0	–6.8	19.4	7.7	23.1	3.6	26.5	19.6	–13.3
Equatorial Guinea	7.4	–22.1	1.5	–35.4	0.1	0.1	–31.1	22.9	–10.0	5.6	–10.8	4.4	3.1	–8.8
Gabon	0.2	9.4	0.4	–5.7	0.3	0.7	28.0	15.4	2.2	16.9	–1.0	15.5	16.3	0.5
Sao Tome & Principe	77.9	–0.1	55.3	–3.7	76.7	78.0	–14.1	24.7	–1.3	30.8	4.4	47.3	39.3	–11.4
Eastern	56.5	–0.3	45.7	–7.6	32.7	28.8	–5.7	17.0	4.4	17.1	0.5	17.0	15.2	–3.7
Comoros	71.8	–1.0	48.4	1.8	67.2	53.5	–18.6	35.5	6.0	41.7	–0.2	45.6	37.5	–8.1
Djibouti	27.8	–1.8	39.6	–0.7	48.5	54.5	13.6	42.1	8.8	68.6	2.7	73.5	71.2	3.0

TABLE E:3—CONTINUED

Region/Country	Agricultural exports share in merchandise exports (%)							Agricultural imports share in merchandise imports (%)						
	Annual avg. level (1990–1995)	Annual avg. change (1990–1995)	Annual avg. level (1995–2003)	Annual avg. change (1995–2003)	2003	Annual avg. level (2003–2007)	Annual avg. change (2003–2007)	Annual avg. level (1990–1995)	Annual avg. change (1990–1995)	Annual avg. level (1995–2003)	Annual avg. change (1995–2003)	2003	Annual avg. level (2003–2007)	Annual avg. change (2003–2007)
Eritrea	9.1		6.3	–3.1	11.9	75.6	19.6	11.9		14.5	7.1	22.9	21.3	–13.8
Ethiopia	84.1	0.2	76.8	–3.5	67.6	69.4	8.3	28.4	–4.6	17.9	3.4	24.8	18.7	–17.4
Kenya	62.5	1.3	56.4	–2.3	48.1	51.6	1.3	14.5	9.1	13.9	–1.2	11.5	11.1	1.3
Madagascar	53.3	–0.3	40.3	–2.3	46.3	33.7	–24.8	13.3	5.4	15.9	–0.2	13.3	15.2	–5.9
Mauritius	29.3	–3.9	21.9	–4.9	19.2	17.4	–3.8	13.9	3.6	14.4	–1.1	15.1	14.4	0.8
Rwanda	67.8	–19.7	45.2	9.7	40.4	52.2	12.4	24.9	22.7	23.1	–3.3	23.1	17.9	–12.5
Seychelles	2.2	23.0	1.2	–22.1	0.4	0.7	19.5	18.0	2.1	14.7	–2.7	14.8	11.8	–5.9
Somalia	51.6	4.1	70.0	3.3	61.7	34.4	–18.3	40.8	4.6	36.4	–2.4	30.3	41.9	18.4
Sudan	79.6	–0.1	50.0	–22.0	17.7	10.1	–29.8	24.4	–1.3	20.7	–1.4	17.0	14.1	1.3
Tanzania	67.2	0.0	61.1	–8.5	33.3	31.0	–1.4	9.4	16.8	18.3	1.6	15.0	12.6	–6.9
Uganda	81.1	–3.8	62.3	–13.9	40.6	36.6	5.0	8.9	24.6	12.5	–2.5	15.3	15.5	–3.8
Northern	5.0	8.8	4.7	–6.0	4.0	3.2	–8.8	23.1	1.1	20.2	–3.5	17.3	15.2	–0.9
Algeria	0.7	18.4	0.4	–20.4	0.2	0.2	–16.3	29.4	4.1	28.4	–4.0	23.4	20.4	–3.2
Egypt	13.1	–2.9	10.5	0.2	11.9	8.9	–11.5	30.0	–3.8	22.6	–4.0	19.6	16.2	–2.3
Libya	0.4	5.5	0.4	–21.7	0.1	0.0	–31.5	23.1	–2.9	22.8	3.1	19.4	19.1	5.6
Mauritania	10.5	–1.0	6.9	–10.4	4.4	2.6	–24.8	54.5	–9.3	50.2	1.9	47.4	30.3	–9.2
Morocco	15.1	0.7	13.1	–7.7	10.5	10.5	–2.6	15.9	12.4	15.8	–5.6	12.7	11.5	0.7
Tunisia	9.7	0.1	7.5	–3.7	7.2	8.9	4.0	10.6	3.6	10.3	–3.9	9.6	9.3	2.7
Southern	10.3	0.8	10.1	–3.3	8.4	6.5	–12.0	10.1	2.0	8.8	–2.9	8.1	7.2	–2.1
Angola	0.1	–11.2	0.1	–25.0	0.0	0.0	–6.6	27.1	–6.4	18.9	–6.6	17.0	12.8	–8.8
Botswana	5.2	5.6	4.5	–10.3	1.9	1.9	12.3	16.3	11.2	19.7	–1.2	14.5	11.7	–2.0
Lesotho	11.8	–20.2	2.7	–30.3	0.4	0.3	–9.4	16.1	–5.6	17.2	1.8	14.6	9.9	–10.7
Malawi	88.5	–2.4	88.1	1.1	88.2	91.5	–0.6	20.4	14.7	15.2	4.1	20.3	15.3	–5.6
Mozambique	32.3	1.7	17.6	–15.2	9.2	10.6	8.5	30.6	7.7	22.8	–7.9	19.7	17.0	–4.2
Namibia	14.9	2.6	16.5	1.3	17.5	13.4	–18.3	9.1	–1.5	15.0	2.4	11.8	10.9	–3.7
South Africa	7.5	0.9	8.0	–0.8	7.8	7.0	–4.9	6.9	5.8	5.6	–6.1	4.8	4.7	0.9
Swaziland	45.6	–12.9	29.3	–9.5	17.2	14.2	–3.8	12.0	–8.2	15.0	5.1	16.1	12.5	–12.0
Zambia	2.6	2.1	10.1	20.4	17.1	13.1	–19.5	8.2	6.4	12.0	1.9	10.9	7.8	–12.9
Zimbabwe	43.9	2.3	48.1	3.3	50.8	39.9	–15.6	8.2	9.5	8.8	5.8	16.4	21.8	12.2

TABLE E:3—CONTINUED

	Agricultural exports share in merchandise exports (%)							Agricultural imports share in merchandise imports (%)						
Region/Country	**Annual avg. level (1990–1995)**	**Annual avg. change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. change (1995–2003)**	**2003**	**Annual avg. level (2003–2007)**	**Annual avg. change (2003–2007)**	**Annual avg. level (1990–1995)**	**Annual avg. change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. change (1995–2003)**	**2003**	**Annual avg. level (2003–2007)**	**Annual avg. change (2003–2007)**
Western	16.3	5.4	17.5	–2.8	16.4	11.7	–14.3	17.6	0.5	18.3	1.2	19.1	17.5	–3.1
Benin	31.1	9.3	65.8	8.8	82.3	79.6	–13.2	40.6	–12.3	25.4	1.4	24.9	33.0	14.1
Burkina Faso	50.3	–26.2	46.5	32.9	75.8	72.7	–8.2	22.5	9.2	25.2	–6.3	15.9	16.5	4.5
Cape Verde	19.3	–45.6	2.3	–0.4	2.1	5.5	22.4	33.5	0.5	31.2	–1.4	28.5	28.3	–5.1
Cote d'Ivoire	54.6	1.4	56.0	–0.4	54.8	45.1	–5.7	18.0	–5.4	13.4	0.5	15.0	15.3	1.2
Gambia, The	43.2	9.2	62.7	–1.5	57.8	57.0	–2.6	37.4	–2.3	38.1	6.2	52.3	53.9	–4.8
Ghana	33.3	–9.6	34.1	–0.1	48.4	43.7	–11.5	14.2	–6.3	11.9	7.6	16.9	15.7	–5.4
Guinea	5.9	28.0	5.9	–8.9	5.6	7.5	–4.2	22.9	13.6	19.9	–4.2	19.5	22.5	0.6
Guinea-Bissau	78.1	2.5	83.1	0.9	77.8	72.4	2.6	42.1	11.2	56.8	9.3	70.4	53.6	–9.6
Liberia	6.3	–17.1	30.3	52.1	73.1	71.9	–13.6	29.2	0.2	37.5	16.4	59.2	50.1	–17.7
Mali	70.9	–6.2	44.0	–6.2	38.0	30.6	–17.7	16.2	–5.1	16.5	3.1	17.0	17.9	–2.2
Niger	15.6	–11.8	29.9	2.9	35.6	21.0	–22.5	23.5	–22.2	33.9	3.1	35.2	28.0	–9.8
Nigeria	2.4	19.9	2.9	–8.1	2.0	1.4	–16.0	11.1	8.5	16.2	3.6	16.7	14.0	–5.5
Senegal	18.2	–15.0	13.9	6.1	14.2	14.5	–1.1	31.2	–1.2	30.5	–1.7	29.1	28.5	–2.1
Sierra Leone	15.7	19.5	33.6	–13.0	11.2	9.9	0.9	67.0	0.2	58.6	0.7	47.5	38.4	–6.7
Togo	44.8	3.5	39.0	–14.3	21.4	24.6	10.3	17.1	–11.2	14.0	–4.3	13.6	15.2	5.9
Middle-income countries	8.4	4.6	8.1	–5.1	6.8	5.0	–12.6	17.0	0.9	15.4	–2.6	13.6	11.9	–1.3
Mineral-rich countries	8.2	7.6	10.3	–1.6	10.6	9.2	–12.2	25.3	9.3	24.4	–4.0	20.8	18.2	–5.8
More favorable agriculture conditions	52.8	–0.4	50.1	–2.6	45.1	42.7	–4.3	16.5	3.6	15.5	1.5	17.0	16.1	–3.3
Less favorable agriculture conditions	43.2	–3.4	37.6	–3.2	27.5	15.9	–21.4	23.2	–1.0	24.1	–0.4	23.1	21.9	–4.4

Source: Authors' calculation based on FAO 2010.
Notes: Blank cells indicate missing values.

Annex F: Poverty and Hunger

TABLE F:1—INTERNATIONAL POVERTY ($1.25/DAY) HEADCOUNT RATIO

	Long term average estimation method							Recent term average estimation method						
Region/Country	**Annual avg. level (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. level (2003–2009)**	**Annual avg. % change (2003–2009)**	**Annual avg. level (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. % level (2003–2009)**	**Annual avg. % change (2003–2009)**
Africa	47.0	–0.1	46.5	–1.3	43.4	44.3	1.1	41.6	2.1	43.3	–0.5	41.8	39.6	–1.9
SSA	57.2	–0.2	55.9	–1.5	52.0	52.8	1.1	52.3	1.2	53.1	–0.9	50.4	47.6	–1.9
Central	72.7	–3.4	61.8	0.4	73.5	68.8	0.2							
Burundi	84.7	0.2	85.1	–0.4	83.2	81.7	–0.5	84.4	0.4	85.1	–0.4	83.2	81.3	–0.8
Cameroon	64.6	–5.7	44.0	–8.3										
Central African Rep.	83.8	–2.4	70.6	–2.9	62.4	56.3	–3.6							
Chad					61.9									
Congo, Dem. Rep.						59.2								
Congo, Rep.						54.1								
Equatorial Guinea														
Gabon						4.8								
Sao Tome & Principe														
Eastern	62.8	–1.9	54.4	–3.7	44.3	38.6	–4.5							
Comoros					46.1			58.8	–2.7	50.3	–2.3	44.4	38.4	–5.0
Djibouti			13.0	22.5	21.1	28.1	8.8							
Eritrea														
Ethiopia	65.9	–3.2	54.7	–3.2	45.6	37.4	–6.4	63.0	–1.5	54.7	–3.2	45.6	35.7	–9.1
Kenya	34.5	–9.6	20.6	–2.4	19.7	17.6	–5.8	36.3	–12.2	20.6	–2.4	19.7	19.7	0.1
Madagascar	73.6	0.3	76.0	–0.2	72.1	68.2	–1.3	71.6	2.2	76.0	–0.2	72.1	69.4	–0.4
Mauritius														
Rwanda			76.6											
Seychelles	2.0	0.0	2.0	0.0	2.0	2.0	0.0							
Somalia														
Sudan														
Tanzania	73.6	2.7	83.5	2.4										

TABLE F:1—CONTINUED

	Long term average estimation method							Recent term average estimation method						
Region/Country	Annual avg. level (1990–1995)	Annual avg. % change (1990–1995)	Annual avg. level (1995–2003)	Annual avg. % change (1995–2003)	2003	Annual avg. level (2003–2009)	Annual avg. % change (2003–2009)	Annual avg. level (1990–1995)	Annual avg. % change (1990–1995)	Annual avg. level (1995–2003)	Annual avg. % change (1995–2003)	2003	Annual avg. % level (2003–2009)	Annual avg. % change (2003–2009)
Uganda	69.3	–2.0	60.7	–2.0	55.4	50.3	–3.1	69.3	–2.0	60.7	–2.0	55.4	49.5	–3.9
Northern	4.0	0.3	3.6	–4.3	2.9	2.3	–6.3	4.2	–1.3	3.8	–2.4	3.3	2.7	–6.5
Algeria														
Egypt	2.7	–2.0	2.2	–3.5	2.0	1.9	–2.1	2.9	–4.2	2.2	–3.6	2.0	2.0	0.0
Libya														
Mauritania	42.7	–10.1	23.6	–5.4				46.0	–13.5	22.4	–3.9	19.6	17.9	–3.0
Morocco	3.3	15.4	5.8	1.3	5.0	3.4	–11.9	3.2	19.7	5.8	1.3	5.0	3.1	–19.8
Tunisia	6.2	2.0	4.6	–16.5				6.2	2.0	4.6				
Southern	51.4	–1.3	49.1	0.0	49.0	48.4	–0.5	47.3	–16.9	32.5	2.5	36.1	38.5	1.9
Angola			54.3											
Botswana	31.2													
Lesotho	55.5	–4.4	45.5	–1.1	43.1	39.5	–3.2	58.6	–7.3	45.5	–1.1	43.4	41.8	–1.2
Malawi	91.5	–1.7	81.6	–1.9	75.4	70.8	–2.1							
Mozambique	86.3	–1.3	79.1	–1.4	74.7	71.4	–1.5							
Namibia	49.1													
South Africa	23.3	–1.6	24.8	3.0	27.0	27.8	1.0	22.9		25.2	3.9	29.1	32.0	3.1
Swaziland	85.2	–3.0	68.1	–3.8	57.5	49.6	–5.2							
Zambia	63.7	0.4	60.4	0.4	63.9	64.6	0.1	63.5	0.6	60.4	0.4	63.9	63.7	–0.5
Zimbabwe														
Western	53.4	2.2	59.1	–0.7	56.7	62.2	4.1	49.5	8.5	59.3	–0.7	57.0	54.8	–1.3
Benin					47.3									
Burkina Faso	73.9	–1.9	65.9	–2.8	57.2	51.6	–3.1	70.9	0.1	65.9	–2.8	56.9	48.4	–5.5
Cape Verde			20.6											
Cote d'Ivoire	18.0	5.6	23.2	1.1	23.9	25.7	2.4	17.0	10.4	23.1	0.9	23.1	22.5	–0.9
Gambia, The			50.5	–12.4	37.5									
Ghana	49.9	–3.6	38.5	–3.6	33.4	29.7	–4.4	50.0	–3.7	38.5	–3.6	33.4	30.0	–3.7
Guinea	65.6	–18.8	55.3	7.1	68.2	64.5	–2.9	59.9		55.3	7.1	70.1	81.2	4.7
Guinea-Bissau	47.3	5.8	50.0	–0.6	49.5	51.5	1.3	46.5	7.6	49.9	–0.7	48.4	47.3	–0.8
Liberia						83.6								

TABLE F:1—CONTINUED

	Long term average estimation method							Recent term average estimation method						
Region/Country	**Annual avg. level (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. level (2003–2009)**	**Annual avg. % change (2003–2009)**	**Annual avg. level (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. % level (2003–2009)**	**Annual avg. % change (2003–2009)**
Mali	90.3	–3.3	68.8	–4.6	57.3	50.6	–4.7	89.7		68.8	–4.6	57.3	51.4	–3.8
Niger	75.1	1.3	72.6	–1.5	68.1	65.6	–1.1	73.5	3.0	72.6	–1.5	68.1	64.8	–1.7
Nigeria	51.0	6.4	66.2	–0.1	64.9	77.0	6.9	46.0	15.6	66.2	–0.1	64.9	63.4	–0.8
Senegal	49.0	4.3	47.2	–3.9	38.9	31.7	–6.8	58.2	–2.8	47.2	–3.9	38.9	30.8	–8.5
Sierra Leone	61.0	–1.2	56.3	–1.3	53.4	51.2	–1.4							
Togo						38.7								
Middle-income countries	29.7	4.0	35.6	0.3	35.5	40.8	5.7	25.9	11.4	35.1	0.8	35.7	35.3	–0.5
Mineral-rich countries	66.4	–6.2	59.6	1.4	63.3	61.3	–1.4	62.0		58.1	3.1	66.6	71.4	2.0
More favorable agriculture conditions	65.5	–1.9	57.2	–3.0	48.7	43.6	–3.7	58.5	–2.5	50.0	–2.5	44.1	38.2	–4.8
Less favorable agriculture conditions	80.0	–1.4	71.2	–1.6	67.0	63.6	–1.7	78.5	0.5	69.8	–2.4	63.5	59.8	–2.0

Source: Authors' calculation based on World Bank 2010b.
Notes: Regional and economic aggregate values are calculated as weighted summations, where each country's population as a share of the regional population is used as a weight. See technical notes for exact method of calculation. Blank cells indicate missing values. Country series were dropped under the recent term average estimation method if there were fewer than three measured data points.

TABLE F:2—NATIONAL POVERTY HEADCOUNT RATIO (% OF POPULATION)

	Long term average estimation method							Recent term average estimation method						
Region/Country	**Annual avg. level (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. level (2003–2009)**	**Annual avg. % change (2003–2009)**	**Annual avg. level (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. % level (2003–2009)**	**Annual avg. % change (2003–2009)**
Africa														
SSA														
Central														
Burundi	46.3	9.0	62.1	6.6										
Cameroon	62.5	–4.1	45.4	–5.7	35.0	27.1	–9.4							
Central African Rep.														
Chad			64.0											
Congo, Dem. Rep.						71.3								
Congo, Rep.						42.3								
Equatorial Guinea														

TABLE F:2—CONTINUED

	Long term average estimation method							Recent term average estimation method						
Region/Country	**Annual avg. level (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. level (2003–2009)**	**Annual avg. % change (2003–2009)**	**Annual avg. level (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. % level (2003–2009)**	**Annual avg. % change (2003–2009)**
Gabon														
Sao Tome & Principe														
Eastern														
Comoros														
Djibouti														
Eritrea	53.0													
Ethiopia	46.6	–0.7	44.5	–0.7	43.2	42.3	–0.8							
Kenya	43.4	–1.3	49.3	0.5	48.4	47.2	–0.5	44.7	–3.2	49.3	0.5	48.4	46.7	–1.2
Madagascar	75.9	–0.8	71.8	–0.9	69.6	68.1	–0.8	75.9	–0.8	71.8	–0.9	69.6	68.3	–0.6
Mauritius	7.1	0.8	7.5	0.8	7.8	7.9	0.8							
Rwanda	51.4	1.5	57.8	1.2	58.6	57.8	–0.1	50.6	2.6	57.8	1.2	58.6	56.9	–1.0
Seychelles														
Somalia														
Sudan														
Tanzania	38.2	–1.0	36.2	–0.6	35.6	35.0	–0.7	38.1	–0.9	36.2	–0.6	35.7	35.7	0.0
Uganda	55.1	–3.3	41.5	–4.7	36.5	31.4	–6.2	55.1	–3.3	41.5	–4.7	36.5	31.0	–7.0
Northern														
Algeria			22.6											
Egypt	28.3	–5.4	18.3	–8.4	12.1	7.4	–21.1							
Libya														
Mauritania	53.2	–1.7	47.2	–1.9	43.5	40.8	–2.2							
Morocco	15.2	–0.4	19.0	4.0	22.0	24.2	3.1							
Tunisia	7.5	0.5	7.8	0.5	7.9	8.0	0.5							
Southern														
Angola														
Botswana														
Lesotho	52.8	6.9	64.4	–2.0	57.8	58.8	1.3	52.8	6.9	64.4	–2.0	56.6	48.1	–5.8
Malawi	54.0	0.0	53.4	–0.4	52.0	45.4	–5.9	54.0	0.0	53.4	–0.4	52.0	43.6	–9.1
Mozambique	76.6	–2.8	63.0	–3.7	53.4	47.7	–4.4	71.0	–0.8	62.9	–3.5	54.1	54.1	0.0

TABLE F:2—CONTINUED

	Long term average estimation method							Recent term average estimation method						
Region/Country	**Annual avg. level (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. level (2003–2009)**	**Annual avg. % change (2003–2009)**	**Annual avg. level (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. % level (2003–2009)**	**Annual avg. % change (2003–2009)**
Namibia														
South Africa	52.4	–1.6	50.5	–1.0	47.6	34.2	–14.6	49.7	1.6	50.5	–1.0	47.6	33.6	–16.8
Swaziland			69.2											
Zambia	71.0	0.0	70.2	–0.2	68.3	65.1	–1.5	71.0	0.0	70.2	–0.2	68.3	63.7	–2.8
Zimbabwe	28.5	6.8	40.4	4.7	47.6	53.1	3.5	28.7	6.4	40.6	4.8	48.2	53.9	3.6
Western														
Benin	25.1	2.2	29.5	3.1	33.6	34.5	–0.4	25.3	2.0	29.5	3.1	33.6	32.6	–4.6
Burkina Faso	44.7	0.3	45.5	0.4	46.4	46.9	0.3	45.0	0.0	45.5	0.4	46.4	47.2	0.6
Cape Verde	56.0	–3.5	43.0	–4.6	35.0	29.0	–6.7							
Cote d'Ivoire	32.1	5.2	36.4	1.0	39.8	45.2	4.0	30.8	8.6	36.4	1.0	39.8	45.3	4.1
Gambia, The	63.1	–1.2	59.5	0.2	61.0	60.6	–0.4	63.5	–1.7	59.5	0.2	61.3	63.5	1.2
Ghana	49.3	–3.0	39.4	–3.8	33.2	28.5	–5.3	49.3	–3.0	39.4	–3.8	33.2	28.5	–5.4
Guinea	40.0													
Guinea-Bissau					65.7									
Liberia						64.0								
Mali	64.0	0.0	63.6	–0.2	63.4	63.8	0.2	65.8	–0.5	63.8	–0.4	63.4	64.0	0.3
Niger	63.2	–0.3	62.5	–0.1	62.2	60.9	–0.9	63.0	–0.1	62.5	–0.1	62.2	60.8	–1.0
Nigeria	45.9	7.4	60.5	–1.5	55.5	56.2	1.2	39.2	23.4	60.5	–1.5	55.5	51.4	–2.6
Senegal	44.1	18.8	61.7	–2.6	55.0	52.3	–0.3	50.5	23.4	61.7	–2.6	55.0	50.4	–2.5
Sierra Leone					70.2									
Togo	75.1	–1.8	66.1	–2.1	60.6	59.6	–0.3							
Middle-income countries														
Mineral-rich countries														
More favorable agriculture conditions														
Less favorable agriculture conditions														

Source: Authors' calculation based on World Bank 2010b; UNSD 2010; specific country sources: Uganda Bureau of Statistics for 1992, 1998, and 2006 data; Kenya National Bureau of Statistics 2007 and Omiti and Nyoro 2008; Malawi National Statistical Office 1998; Tanzania National Bureau of Statistics and Ministry of Finance and Economic Affairs 2007; Zambia Statistics Office 2009.
Notes: Regional and economic aggregate values are calculated as weighted summations, where each country's population as a share of the regional population is used as a weight. See technical notes for exact method of calculation. Blank cells indicate missing values. Country series were dropped under the recent term average estimation method if there were fewer than three measured data points.

TABLE F:3—PREVALENCE OF CHILD MALNUTRITION

	Long term average method of estimation							Recent term average method of estimation						
Region/Country	**Annual avg. level (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. level (2003–2009)**	**Annual avg. % change (2003–2009)**	**Annual avg. level (1990–1995)**	**Annual avg. % change (1990–1995)**	**Annual avg. level (1995–2003)**	**Annual avg. % change (1995–2003)**	**2003**	**Annual avg. % level (2003–2009)**	**Annual avg. % change (2003–2009)**
Africa	27.0	–0.5	25.6	–1.4	24.2	23.4	–1.1	26.9	–0.5	25.5	–1.4	24.2	23.4	–1.0
SSA	31.0	–0.8	29.2	–1.2	27.7	26.6	–1.3	30.9	–0.7	29.1	–1.2	27.6	26.4	–1.5
Central	32.4	–0.2	30.4	–1.6	29.2	29.4	0.2	31.6	–0.6	29.7	–1.1	28.9	30.0	1.4
Burundi	54.0	–2.2	46.3	–2.5	41.6	38.0	–3.1							
Cameroon	15.6	7.4	20.2	–0.2	18.8	19.3	1.8	15.4	8.4	20.2	–0.2	18.8	19.5	2.4
Central African Rep.	27.0	0.4	25.8	–0.6	26.4	31.9	7.7	28.8	–2.1	25.8	–0.6	26.4	28.5	2.5
Chad	40.2	–0.7	34.4	–3.0	34.6	35.8	–0.1	38.8	–2.1	33.1	–1.2	34.6	41.0	5.4
Congo, Dem. Rep.	35.0	–0.7	32.4	–1.3	31.2	31.2	–0.1	35.8	–1.5	32.4	–1.3	31.2	31.4	0.2
Congo, Rep.	13.4	0.6	13.9	0.6	14.2	14.5	0.6							
Equatorial Guinea	33.6	–5.8	20.6	–9.6	12.6	6.6	–36.2							
Gabon			10.4											
Sao Tome & Principe	17.5	–3.5	13.5	–4.5	11.1	9.2	–6.6							
Eastern	35.1	–0.8	33.8	–0.9	31.8	29.7	–1.9	34.8	–0.2	33.8	–0.9	31.8	29.2	–2.9
Comoros	20.9	6.5	25.3	0.0	25.0	26.0	1.6	20.7	7.4	25.3	0.0	25.0	24.7	–0.5
Djibouti	20.9	–3.7	18.4	0.4	20.7	26.9	6.3	20.9	–3.7	18.4	0.4	20.7	28.9	10.2
Eritrea	41.8	0.9	39.5	–0.4	39.4	39.0	–0.4	40.3	3.4	39.6	–0.4	39.8	40.5	0.5
Ethiopia	47.4	–1.3	44.9	–0.6	41.9	38.1	–2.6	47.3	–1.2	44.9	–0.6	41.9	36.6	–4.7
Kenya	22.6	–0.5	21.4	–1.5	20.0	19.2	–1.2	22.2	0.7	21.4	–1.5	19.9	18.6	–2.3
Madagascar	37.3	–2.6	36.7	0.4	39.7	42.1	1.1	38.3	–4.3	36.7	0.4	39.7	46.3	4.9
Mauritius	14.9													
Rwanda	29.0	–1.7	25.3	–2.3	23.2	21.9	–2.1	29.0	–1.6	25.3	–2.3	23.2	22.1	–1.6
Seychelles														
Somalia			26.1	9.0	31.4	36.1	4.8			26.1		31.4	35.6	4.0
Sudan	35.1	0.5	38.1	0.2	35.9	32.2	–2.8	34.0	2.7	38.1	0.2	35.9	31.0	–5.1
Tanzania	29.5	0.3	28.3	–2.8	24.3	21.6	–3.4	29.0	1.6	28.3	–2.8	24.3	20.5	–6.0
Uganda	26.7	–1.7	23.7	–1.9	21.8	20.4	–2.3	26.6	–1.7	23.7	–1.9	21.8	20.4	–2.3
Northern	10.3	1.6	9.2	–5.6	8.3	7.6	–2.0	10.6	1.6	9.4	–5.7	8.4	7.9	–0.1
Algeria	10.5	7.3	9.9	–5.1	8.7	4.8	–19.2	9.8	14.2	9.9	–5.1	8.7	4.5	
Egypt	10.1	2.6	9.2	–9.4	7.7	7.3	–1.1	10.1	2.6	9.2	–9.4	7.7	7.3	–0.2

TABLE F:3—CONTINUED

	Long term average method of estimation							Recent term average method of estimation						
Region/Country	Annual avg. level (1990–1995)	Annual avg. % change (1990–1995)	Annual avg. level (1995–2003)	Annual avg. % change (1995–2003)	2003	Annual avg. level (2003–2009)	Annual avg. % change (2003–2009)	Annual avg. level (1990–1995)	Annual avg. % change (1990–1995)	Annual avg. level (1995–2003)	Annual avg. % change (1995–2003)	2003	Annual avg. % level (2003–2009)	Annual avg. % change (2003–2009)
Libya	4.0	2.7	4.7	2.3	5.2	5.5	2.0							
Mauritania	39.6	–10.8	28.3	3.4	31.1	30.4	–0.6	40.2	–11.8	28.3	3.4	31.1	30.7	0.0
Morocco	8.9	0.3	9.3	1.6	10.0	10.4	1.1	9.0	–0.2	9.3	1.6	10.0	10.6	1.8
Tunisia	11.1	–8.3	4.2	–18.1	1.2	0.7		14.3	–15.1	4.3	–17.4	1.2	0.7	
Southern	20.4	–0.1	19.3	–1.1	18.4	17.3	–2.0	17.0	2.3	17.5	–0.3	17.0	15.8	–2.7
Angola	41.6	–3.1	33.1	–3.9	27.9	24.0	–5.3							
Botswana	21.1	–5.3	15.4	–7.3										
Lesotho	17.7	5.8	17.8	1.5	19.3	17.9	–1.5	16.3	14.3	17.8	1.5	19.3	12.9	–23.3
Malawi	28.3	1.4	25.9	–4.1	22.0	20.6	–2.5	27.7	3.3	25.9	–4.1	22.0	20.4	–3.2
Mozambique	28.8	–2.5	25.7	–1.4	23.5	20.1	–5.8	28.1	–1.6	25.7	–1.4	23.5	20.0	–6.1
Namibia	26.2	–1.5	23.8	–2.1	21.2	18.6	–4.4	26.1	–1.0	23.8	–2.1	21.2	18.4	–4.9
South Africa	8.5	3.5	10.9	2.8	11.6	12.4	2.4	7.8	7.8	10.9	2.8	11.5	11.5	0.0
Swaziland			9.7	–4.2	9.1	7.8	–5.2							
Zambia	25.9	2.6	23.4	–1.1	21.5	19.7	–1.9	25.9	2.6	23.4	–1.1	21.5	19.7	–1.8
Zimbabwe	15.3	0.4	15.0	1.0	16.8	16.9	–0.1	15.7	–0.8	15.0	1.0	16.8	16.3	–1.8
Western	32.0	–1.4	29.3	–1.6	27.6	26.8	–1.1	33.3	–2.1	29.5	–1.8	27.6	26.9	–1.0
Benin	31.5	–2.1	25.8	–3.8	22.8	22.1	–1.6	33.6	–3.7	25.8	–3.9	22.8	22.6	–0.3
Burkina Faso	32.5	1.0	34.9	1.6	37.4	37.8	0.3	32.6	0.8	34.9	1.6	37.4	37.4	–0.3
Cape Verde	13.5													
Cote d'Ivoire	24.2	–1.4	20.9	–3.1	18.0	19.0	1.9	24.6	–2.1	20.9	–3.1	18.0	20.5	6.2
Gambia, The	28.4	–2.1	21.1	–5.5	18.7	19.3	–0.2	34.4	–6.5	21.3	–5.9	18.7	20.3	2.7
Ghana	27.5	–3.9	22.9	–2.4	21.5	17.5	–8.8	28.9	–6.6	22.9	–2.4	21.5	17.3	–9.6
Guinea	21.1	1.5	22.2	–0.3	22.5	25.3	2.4	28.4	–2.8	23.5	–2.7	22.5	25.2	2.3
Guinea-Bissau	32.0	–2.9	25.9	–3.6	22.2	19.2	–5.3							
Liberia	28.5	–1.1	25.3	–2.8	23.2	23.5	0.0	49.8	–7.0	28.9	–7.6	23.2	23.7	0.6
Mali	42.9	–1.9	36.2	–3.1	32.6	31.3	–1.8	44.8	–3.0	36.3	–3.1	32.6	31.7	–0.9
Niger	43.1	0.5	42.9	–0.9	42.0	43.1	0.2	42.5	1.6	42.9	–0.9	42.0	43.0	0.0
Nigeria	34.4	–1.6	30.9	–1.7	28.8	27.7	–1.2	34.4	–1.6	30.9	–1.7	28.8	27.7	–1.1
Senegal	21.3	–1.3	21.6	–1.0	19.5	17.3	–3.1	21.9	–3.1	21.6	–1.0	19.5	16.2	–6.5

TABLE F:3—CONTINUED

Region/Country	Long term average method of estimation: Annual avg. level (1990–1995)	Annual avg. % change (1990–1995)	Annual avg. level (1995–2003)	Annual avg. % change (1995–2003)	2003	Annual avg. level (2003–2009)	Annual avg. % change (2003–2009)	Recent term average method of estimation: Annual avg. level (1990–1995)	Annual avg. % change (1990–1995)	Annual avg. level (1995–2003)	Annual avg. % change (1995–2003)	2003	Annual avg. % level (2003–2009)	Annual avg. % change (2003–2009)
Sierra Leone	22.4	2.9	26.6	2.4	29.1	31.0	2.1							
Togo	18.6	0.7	26.4	1.5	25.7	24.0	–4.3			27.3		25.7	23.5	–5.8
Middle-income countries	22.5	–0.6	20.8	–2.2	19.1	18.4	–1.0	20.8	0.6	20.2	–1.7	18.9	18.4	–0.3
Mineral-rich countries	31.0	0.1	29.3	–1.1	28.5	28.9	0.5	33.7	–1.6	29.7	–1.6	28.4	28.7	0.3
More favorable agriculture conditions	32.3	–1.1	30.5	–1.1	28.8	26.7	–2.4	32.6	–1.1	30.6	–1.2	28.8	26.4	–3.2
Less favorable agriculture conditions	41.5	–1.1	35.8	–2.0	34.5	34.8	–0.2	39.5	–1.1	34.2	–1.5	33.7	35.4	1.4

Source: Authors' calculations based on WDI (2010); UNSD (2010); FAO (2010).
Notes: Child malnutrition prevalence includes children whose weight-for- age is below 2 standard deviations. Regional and economic aggregate values are calculated as weighted summations, where each country's population as a share of the regional population is used as a weight. See technical notes for exact method of calculation. Blank cells indicate missing values. Country series were dropped under the recent term average estimation method if there were less than three measured data points.

TABLE F:4—PREVALENCE OF ADULT UNDERNOURISHMENT (% OF POPULATION)

Region/Country	Annual average level (1990–1995)	Annual average % change (1990–1995)	Annual average level (1995–2003)	Annual average % change (1995–2003)	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Africa	28.2	–0.4	27.0	–1.3	25.4	23.7	–2.2
SSA	34.0	–0.8	32.1	–1.2	30.4	28.7	–1.9
Central	34.7	7.9	50.5	3.1	54.6	54.2	0.2
Burundi	46.0	4.6	57.1	1.5	59.6	61.7	1.3
Cameroon	34.6	–0.6	30.8	–4.5	25.0	22.1	–4.3
Central African Rep.	47.8	0.4	46.6	–2.1	42.4	40.7	–1.4
Chad	58.1	–2.6	47.8	–3.2	41.8	38.1	–3.3
Congo, Dem. Rep.	33.3	14.5	60.9	5.2	69.8	70.4	0.9
Congo, Rep.	41.4	–0.6	32.5	–10.7	19.0	15.7	–7.5
Equatorial Guinea							
Gabon	5.0	0.0	5.0	0.0	5.0	5.0	0.0
Sao Tome & Principe	15.3	–1.6	11.8	–9.3	7.4	5.6	–10.9
Eastern	45.2	–0.9	41.7	–2.0	38.0	35.1	–2.6
Comoros	41.4	2.8	50.0	2.2	52.4	48.5	–2.1

TABLE F:4—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average % change (1990–1995)	Annual average level (1995–2003)	Annual average % change (1995–2003)	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Djibouti	59.1	–3.4	46.0	–4.4	37.6	30.5	–7.4
Eritrea	66.5	–0.7	66.7	1.1	68.8	65.6	–1.4
Ethiopia	70.4	–2.5	56.7	–4.6	46.6	42.1	–3.7
Kenya	32.5	–1.3	31.1	0.6	31.8	31.2	–0.6
Madagascar	33.2	1.4	32.6	–3.7	27.4	25.7	–2.2
Mauritius	6.9	–2.5	5.6	–3.3	5.0	4.9	–0.8
Rwanda	47.6	2.3	47.2	–5.0	37.2	34.8	–2.2
Seychelles	10.7	–3.2	8.7	–2.7	7.8	7.2	–3.0
Somalia							
Sudan	29.9	–3.7	26.1	1.0	26.8	23.5	–4.3
Tanzania	30.4	5.9	39.1	0.3	38.0	35.6	–1.7
Uganda	19.7	2.8	21.0	–2.0	19.4	20.5	1.6
Northern							
Algeria	5.0	0.0	5.0	0.0	5.0	5.0	0.0

TABLE F:4—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average % change (1990–1995)	Annual average level (1995–2003)	Annual average % change (1995–2003)	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Egypt	5.0	0.0	5.0	0.0	5.0	5.0	0.0
Libya	5.0	0.0	5.0	0.0	5.0	5.0	0.0
Mauritania	9.7	–3.3	8.1	–1.0	7.8	7.2	–2.7
Morocco	5.0	0.0	5.4	2.6	5.8	5.3	–2.6
Tunisia	5.0	0.0	5.0	0.0	5.0	5.0	0.0
Southern	42.9	–1.2	39.7	–1.5	37.0	34.1	–2.6
Angola	65.2	–2.5	55.6	–2.4	49.8	43.4	–4.6
Botswana	20.6	3.1	25.0	2.3	26.6	25.7	–0.7
Lesotho	14.6	–1.9	13.6	0.6	14.0	14.0	–0.1
Malawi	43.8	–3.5	33.9	–3.6	29.6	28.1	–2.2
Mozambique	58.3	–2.4	49.6	–2.5	44.4	39.7	–3.8
Namibia	29.3	–0.8	25.4	–4.8	20.6	19.3	–2.5
South Africa	5.0	0.0	5.0	0.0	5.0	5.0	0.0
Swaziland	13.4	8.8	18.6	0.0	18.0	18.2	0.6
Zambia	40.1	0.5	41.8	0.8	43.0	43.1	0.1
Zimbabwe	41.5	1.2	43.1	–1.6	38.8	32.9	–5.2
Western	19.3	–4.5	14.8	–2.5	13.2	10.9	–6.8
Benin	28.1	–2.3	21.2	–8.3	14.4	12.4	–5.9
Burkina Faso	13.8	–2.7	12.1	–0.9	11.4	9.7	–5.2
Cape Verde	12.5	1.6	14.2	1.1	14.0	11.4	–6.3
Cote d'Ivoire	15.2	0.7	16.3	0.9	16.4	14.8	–2.9
Gambia, The	22.2	6.1	25.8	–4.4	20.6	19.5	–1.5
Ghana	31.4	–9.4	14.0	–11.9	8.2	5.3	–24.8
Guinea	18.9	–0.9	18.9	1.2	19.4	17.8	–2.6
Guinea-Bissau	21.1	3.8	25.1	0.1	24.4	22.9	–1.7
Liberia	31.7	3.8	37.0	–0.4	35.4	33.9	–1.1
Mali	14.3	0.5	16.1	2.6	16.8	13.7	–6.2
Niger	39.0	–0.5	33.9	–5.8	25.6	21.5	–6.1
Nigeria	14.3	–5.9	9.8	–3.7	8.4	6.6	–8.9

TABLE F:4—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average % change (1990–1995)	Annual average level (1995–2003)	Annual average % change (1995–2003)	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Senegal	29.2	0.8	28.9	–3.1	24.2	19.3	–7.4
Sierra Leone	44.9	–1.1	43.0	–0.4	41.4	37.0	–3.5
Togo	44.3	–2.5	37.9	–2.0	34.8	31.3	–3.6
Middle-income countries	14.4	–2.4	12.5	–1.6	11.6	10.2	–4.2
Mineral-rich countries	34.1	8.5	51.6	3.8	57.2	57.3	0.5
More favorable agriculture conditions	42.5	–1.4	37.5	–3.0	32.8	30.2	–2.9
Less favorable agriculture conditions	34.2	0.3	33.7	–1.8	30.7	28.6	–2.3

Source: Authors' calculations based on World Bank 2010b; UNSD 2010; FAO 2010.
Notes: Regional and economic aggregate values are calculated as weighted summations, where each country's population as a share of the regional population is used as a weight. See technical notes for exact method of calculation. Blank cells indicate missing values.

TABLE F:5—MORTALITY RATE, UNDER FIVE (PER 1000)

Region/Country	Annual average level (1990–1995)	Annual average % change (1990–1995)	Annual average level (1995–2003)	Annual average % change (1995–2003)	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Africa	153.0	–1.0	138.3	–2.0	126.8	117.7	–2.5
SSA	172.4	–0.7	157.8	–1.9	145.3	135.1	–2.5
Central	183.5	0.1	184.6	0.1	184.9	184.7	–0.1
Burundi	186.7	–0.6	178.8	–0.7	173.8	170.0	–0.7
Cameroon	150.2	0.6	154.8	0.3	155.8	155.2	–0.2
Central African Rep.	178.8	1.0	182.5	–0.2	179.8	175.5	–0.9
Chad	201.5	0.0	204.6	0.4	207.5	208.7	0.1
Congo, Dem. Rep.	198.6	0.0	198.6	0.0	198.6	198.6	0.0
Congo, Rep.	106.8	1.1	114.8	1.1	120.0	124.0	1.1
Equatorial Guinea	190.1	–1.6	171.1	–1.6	160.2	152.5	–1.6
Gabon	90.1	–1.2	83.7	–1.2	79.2	74.4	–2.3
Sao Tome & Principe	92.5	–1.0	86.4	–1.0	82.9	80.3	–1.0
Eastern	157.9	–1.3	137.4	–2.7	122.9	112.9	–2.8

TABLE F:5—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average % change (1990–1995)	Annual average level (1995–2003)	Annual average % change (1995–2003)	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Comoros	124.0	–1.2	115.5	–1.0	110.7	107.3	–1.0
Djibouti	118.6	–1.4	108.0	–1.4	102.0	97.7	–1.4
Eritrea	132.4	–5.1	94.6	–5.1	76.3	65.1	–5.2
Ethiopia	194.6	–3.0	155.1	–3.8	132.3	117.8	–3.9
Kenya	105.7	2.5	105.7	–1.7	97.6	90.6	–2.5
Madagascar	151.1	–4.1	108.5	–5.8	84.4	70.1	–6.1
Mauritius	22.7	–2.5	19.4	–2.7	16.9	16.2	0.5
Rwanda	205.8	7.1	194.7	–5.4	155.0	131.8	–5.5
Seychelles	14.7	–1.1	13.7	–1.0	13.2	12.8	–1.0
Somalia	180.0	0.0	180.0	0.0	180.0	180.0	0.0
Sudan	121.1	–0.8	115.6	–0.6	112.6	110.4	–0.7
Tanzania	158.3	–0.9	142.2	–2.2	129.4	119.0	–3.0
Uganda	178.1	–1.4	158.1	–2.1	145.3	136.3	–2.2
Northern	70.4	–5.1	50.4	–5.2	40.1	33.7	–5.7
Algeria	57.9	–2.1	47.8	–3.6	41.0	36.4	–3.9
Egypt	77.2	–6.2	50.5	–6.9	36.6	28.1	–8.8
Libya	32.9	–3.4	26.3	–3.4	22.8	20.6	–3.5
Mauritania	127.3	–0.5	122.9	–0.5	120.4	118.8	–0.5
Morocco	78.5	–5.2	58.0	–4.1	48.7	42.9	–4.2
Tunisia	42.8	–6.3	29.5	–4.6	24.9	22.7	–3.0
Southern	137.2	–0.4	131.9	–1.0	125.3	115.6	–3.2
Angola	253.1	–0.8	220.2	–3.0	194.0	176.7	–3.1
Botswana	68.6	5.4	87.4	0.7	79.0	64.7	–5.3
Lesotho	96.3	1.6	114.6	2.3	117.7	105.0	–5.6
Malawi	206.4	–2.2	170.4	–3.5	145.9	127.7	–4.6
Mozambique	219.8	–2.3	188.4	–2.4	170.7	156.8	–3.1
Namibia	71.5	–0.9	72.0	–0.3	67.0	57.2	–5.7
South Africa	62.5	0.5	72.8	2.8	78.1	72.3	–4.1
Swaziland	92.0	–0.2	100.7	1.9	105.5	93.3	–6.7

TABLE F:5—CONTINUED

Region/Country	Annual average level (1990–1995)	Annual average % change (1990–1995)	Annual average level (1995–2003)	Annual average % change (1995–2003)	2003	Annual average level (2003–2009)	Annual average % change (2003–2009)
Zambia	177.1	–0.3	167.6	–1.2	159.5	151.5	–2.0
Zimbabwe	93.7	5.4	111.0	0.5	108.6	99.9	–3.2
Western	199.9	–0.6	180.2	–2.4	161.5	146.9	–3.2
Benin	173.0	–2.6	148.0	–2.2	135.2	126.4	–2.2
Burkina Faso	200.7	–0.1	190.2	–1.3	180.3	173.3	–1.3
Cape Verde	56.9	–4.3	43.0	–4.2	36.0	31.5	–4.4
Cote d'Ivoire	151.7	–0.2	143.2	–1.4	134.1	126.3	–2.1
Gambia, The	151.2	–0.5	135.1	–2.6	121.4	111.8	–2.7
Ghana	115.0	–1.8	104.2	–1.9	92.6	80.1	–4.9
Guinea	220.3	–1.9	190.0	–2.6	169.9	155.2	–3.0
Guinea-Bissau	236.7	–0.6	221.2	–1.3	209.3	200.8	–1.4
Liberia	250.1	0.5	209.4	–5.1	165.9	137.0	–6.3
Mali	241.6	–1.3	220.7	–1.4	208.3	199.6	–1.4
Niger	289.5	–2.1	237.2	–3.7	202.9	180.7	–3.8
Nigeria	211.4	–0.1	192.9	–2.5	171.4	154.0	–3.6
Senegal	144.2	–1.8	123.4	–2.8	110.1	101.1	–2.8
Sierra Leone	279.7	–0.8	253.7	–2.1	229.8	210.5	–2.9
Togo	145.9	–1.2	127.7	–2.6	114.7	105.8	–2.7
Middle-income countries	128.9	–1.0	116.6	–2.0	106.2	97.2	–3.0
Mineral-rich countries	203.7	–0.4	196.2	–0.7	190.3	185.7	–0.8
More favorable agriculture conditions	164.6	–1.6	143.0	–2.6	127.7	116.3	–3.2
Less favorable agriculture conditions	211.4	–0.1	194.6	–2.0	179.4	169.3	–1.9

Source: Authors' calculation based on World Bank 2010b.

TABLE F:6—GLOBAL HUNGER INDEX

Region/Country	1990	2010	Average annual change (1990–2010)
Africa	21.6	18.0	–0.9
SSA	25.0	21.0	–0.9
Central	25.7	39.7	2.2
Burundi	31.8	38.3	0.9
Cameroon	22.3	17.6	–1.2
Central African Rep.	30.0	27.4	–0.5
Chad	37.6	30.9	–1.0
Congo, Dem. Rep.	24.7	41.0	2.6
Congo, Rep.	22.4	15.2	–1.9
Equatorial Guinea			
Gabon	7.7	6.4	–0.9
Sao Tome & Principe			
Eastern	27.9	22.2	–1.1
Comoros	23.0	27.9	1.0
Djibouti	30.8	23.5	–1.3
Eritrea			
Ethiopia	43.7	29.8	–1.9
Kenya	20.3	19.8	–0.1
Madagascar	28.1	27.5	–0.1
Mauritius	7.3	6.7	–0.4
Rwanda	28.9	23.1	–1.1
Seychelles			
Somalia			
Sudan	26.4	20.9	–1.2
Tanzania	22.9	20.7	–0.5
Uganda	19.1	15.0	–1.2
Northern	6.9	4.3	–2.4
Algeria	6.1	<5	

TABLE F:6—CONTINUED

Region/Country	1990	2010	Average annual change (1990–2010)
Egypt	7.0	<5	
Libya	<5	<5	
Mauritania	22.0	13.1	–2.6
Morocco	7.3	5.8	–1.1
Tunisia	5.0	<5	
Southern	21.2	16.6	–1.2
Angola	40.6	27.2	–2.0
Botswana	14.3	12.5	–0.7
Lesotho	13.0	12.2	–0.3
Malawi	30.6	18.2	–2.6
Mozambique	37.4	23.7	–2.3
Namibia	19.2	13.6	–1.7
South Africa	7.3	7.3	0.0
Swaziland	9.5	10.8	0.6
Zambia	25.6	24.9	–0.1
Zimbabwe	18.6	20.9	0.6
Western	24.0	17.8	–1.5
Benin	24.0	17.1	–1.7
Burkina Faso	22.7	21.1	–0.4
Cape Verde			
Cote d'Ivoire	16.0	14.0	–0.7
Gambia, The	17.5	18.5	0.3
Ghana	23.4	10.0	–4.2
Guinea	21.9	17.1	–1.2
Guinea-Bissau	20.9	22.6	0.4
Liberia	22.9	24.3	0.3
Mali	24.2	19.1	–1.2
Niger	36.5	25.9	–1.7

TABLE F:6—CONTINUED

Region/Country	1990	2010	Average annual change (1990–2010)
Nigeria	24.4	17.8	–1.6
Senegal	20.8	16.8	–1.1
Sierra Leone	32.7	28.9	–0.6
Togo	27.8	22.4	–1.1
Middle-income countries	16.1	12.2	–1.4
Mineral-rich countries	37.3	34.2	–0.4
More favorable agriculture conditions	29.0	22.0	–1.4
Less favorable agriculture conditions	30.6	27.0	–0.6

Source: Authors' calculation based on von Grebmer et al. 2010.
Notes: Regional and economic aggregate values are calculated as weighted summations, where each country's population as a share of the regional population is used as a weight. Blank cells indicate missing values.

Technical Notes

Notes for all tables:

1. To control for year-to-year fluctuations, point estimates are avoided in the table. Therefore, the values under the column "2003" are simple averages over the years 2002 to 2004.
2. Annual average level and annual average change for 2003–2009 include data from 2003 up to most recent year that is measured and available.
3. Annual average level is simple average over the years shown, inclusive of the years shown.
4. Annual average change for all indicators except GDP growth rates (and others with possible negative values) is annual average percent change from the beginning to the end years shown by fitting an exponential growth function to the data points (i.e., "LOGEST" function in excel).
5. Annual average change for GDP growth rates (and other indicators with possible negative values) is annual average percentage point change, which is a simple average of the difference in two consecutive years over the years specified in the range.
6. For indicators in which there are only a few measured data points over the years specified in the range (e.g., poverty, which is measured once every three to five years or so), a straight-line method was used to obtain missing values for the individual years between any two measured data points. Otherwise, estimated annual average change based on the measured values (see above) is used to obtain missing values preceding or following the measured data point.
    6a. In cases where the missing values could not be interpolated, the data is reported as missing and excluded from the calculations for that time period. Any weights used for these indicators are adjusted to account for the missing data in the series of the indicator.
7. Values for *Africa*, the regional aggregations (*SSA* and *central, eastern, northern, southern* and *western*), and economic aggregations (*Middle-income countries, Mineral-rich countries, More favorable agriculture conditions,* and *Less favorable agriculture conditions*—see introduction) are calculated by weighted summation. The weights vary by indicator; if a weight was used, the specific weights used is listed under each table, and weights are based on each country's proportion in the total value of the indicator used for the weighing measured at the respective aggregate level. Each country *i*'s weight in region *j* (w_{ij}) is then multiplied by the country's data point (x_i) and then summed up for the relevant countries in the region to obtain the regional value (y_j) according to: $y_j = \Sigma_i \, w_{ij} x_i$.
8. Sub-Saharan Africa (SSA) excludes the northern Africa region and its constituent countries.

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