ReSAKSS-SA

Annual Trends Report 2008

ReSAKSS SA Southern Africa

Regional Strategic Analysis and Knowledge Support System

# Recent Trends and Future Prospects for

## Agricultural Growth, Poverty Reduction and Investment in Southern Africa

# Authors

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## About ReSAKSS | *www.resakss.org*

The Regional Strategic Analysis and Knowledge Support System (ReSAKSS) is an Africa-wide network that provides analysis, data, and tools to promote evidence-based decision making, improve awareness of the role of agriculture for development in Africa, fill knowledge gaps, promote dialogue, and facilitate the implementation of the Comprehensive Africa Agriculture Development Programme (*www.nepad.org/2005/files/caadp.php*) of the New Partnership for Africa's Development and the African Union Commission (*www.africa-union.org*) and other regional agricultural development initiatives in Africa.

## Key Partners

African Union Commission
AUC | *www.africa-union.org*

The New Partnership for Africa's Development
NEPAD | *www.nepad.org*

The Southern African Development Community
SADC | *www.sadc.int*

The Common Market of Eastern and Southern Africa
COMESA | *www.comesa.int*

The Economic Community of West African States
ECOWAS | *www.ecowas.int*

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- ReSAKSS Africa Wide is hosted by the International Food Policy Research Institute (*www.ifpri.org*), Washington, D.C., USA.
- ReSAKSS East and Central Africa is hosted by the International Livestock Research Institute (*www.ilri.org*), Nairobi, Kenya.
- ReSAKSS Southern Africa is hosted by the International Water Management Institute (*www.iwmi.org*), in collaboration with the International Crops Research Institute for Semi-Arid Tropics (*www.icrisat.org*), Pretoria, South Africa.
- ReSAKSS West Africa is hosted by the International Institute of Tropical Agriculture (*www.iita.org*), Ibadan, Nigeria.


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# Recent Trends and Future Prospects for

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## Acronyms

| | |
|---|---|
| **AU** | *African Union* |
| **CAADP** | *Comprehensive Africa Agriculture Development Programme* |
| **COMESA** | *Common Market for Eastern and Southern Africa* |
| **CGIAR** | *Consultative Group on International Agricultural Research* |
| **DFID** | *UK Department for International Development* |
| **ECOWAS** | *Economic Community of West African States* |
| **FAO** | *Food and Agriculture Organization of the United Nations* |
| **GDP** | *Gross Domestic Product* |
| **GNI** | *Gross National Income* |
| **GoM** | *Government of Malawi* |
| **ICRISAT** | *International Crops Research Institute for the Semi-Arid Tropics* |
| **IITA** | *International Institute of Tropical Agriculture* |
| **ILRI** | *International Livestock Research Institute* |
| **IWMI** | *International Water Management Institute* |
| **MDGs** | *Millennium Development Goals* |
| **NEPAD** | *New Partnership for Africa's Development* |
| **NGO** | *Non-governmental Organization* |
| **PIN** | *Agricultural Production Indices* |
| **R&D** | *Research and Development* |
| **ReSAKSS** | *Regional Strategic Analysis and Knowledge Support System* |
| **ReSAKSS-SA** | *Regional Strategic Analysis and Knowledge Support Systems for Southern Africa* |
| **RISDP** | *Regional Indicative Strategic Development Plan* |
| **SADC** | *Southern African Development Community* |
| **SIDA** | *Swedish International Development Cooperation Agency* |
| **SSA** | *sub-Saharan Africa* |
| **USAID** | *United States Agency for International Development* |

# Executive Summary

Agriculture continues to dominate livelihoods and employment for millions of southern Africans. In 2006, six out of ten people living in the Southern African Development Community (SADC) countries resided in rural areas. The region's agricultural performance is a determining factor in the quality of life of over 150 million people. This report examines the role of agriculture as an instrument in poverty reduction and sustainable economic growth in the SADC region. More specifically, it measures progress towards key growth and development targets in the SADC region, with a focus on 'Public expenditure on agriculture', which is a 2008 theme for the Regional Strategic Analysis and Knowledge Support System for Southern Africa (ReSAKSS-SA).

**Gross Domestic Product** (GDP) growth in the SADC region has been impressive since 2003, averaging well over 5% per year, slightly higher than the continent-wide level. Seven countries registered growth rates of 5% or higher in 2006/07, with Angola, Malawi and Mozambique performing especially well. Relatively poor performers by regional standards included Botswana, Lesotho, Mauritius, Swaziland and Zimbabwe.

## POOR PERFORMANCE OF AGRICULTURE SECTOR

Conversely, the **Agricultural Gross Domestic Product** of the SADC has performed poorly in recent years, with three exceptions that pull up the regional average (Angola, Tanzania and Mozambique). Agriculture in Lesotho, Mauritius and Zimbabwe registered negative growth between 2006 and 2007. Botswana and South Africa registered negative growth prior to this period, but reversed the trend in 2006/07, albeit only to relatively low levels. Agricultural GDP growth in Namibia has remained unchanged since 2003.

The poor performance of the region's agricultural sectors is due to a stagnant agricultural productivity. This is largely a result of insufficient investment in agriculture, poor access to agricultural inputs, poor access to markets, and low levels of technology development and use. Other factors explaining the underlying low productivity include adverse climatic conditions, hunger and HIV/AIDS, as all of these threaten the livelihoods of farming households.

In the period between 1990 and 2006 per capita food production increased in only two countries - Angola and Mozambique (Annex, Table A1). In Botswana, per capita food production fell by more than 30% over this same period; in the Democratic Republic of the Congo (DRC), it fell by almost 50%. More alarmingly, the dominant food production yields in the region (cereals, roots and tubers) have declined dramatically. The region's livestock sectors have also grown slowly or contracted in recent years, with the exception of Mauritius and South Africa.

## INCOME AND POVERTY

The region-wide average per capita GDP between 2000 and 2006 was slightly over US$1,200. But a clear majority of countries averaged US$500 or less. Countries whose agricultural sectors performed poorly also registered low per capita GDP levels. Countries with relatively large agricultural sectors and large rural populations (Tanzania, DRC, Madagascar and Mozambique) recorded especially low per capita GDPs. Conversely, countries with relatively small agricultural sectors and rural populations (Botswana, Mauritius and Swaziland) fared much better.

## FOOD PRICES

Food prices have increased drastically in the SADC region. Early measures of the impacts of rising food prices on poverty in the region indicate that staple food price increases have a direct correlation with increases in poverty. Accordingly, increasing food prices are a risk factor in the causation of poverty in the SADC. FAO lists four SADC countries that are already facing food crises as a result of high food prices: DRC, Lesotho, Swaziland and Zimbabwe (FAO 2008b).

## HUNGER

While there has been some progress in reducing undernourishment in the overall population in many SADC countries, with Angola, Malawi and Mozambique standing out, levels of undernourishment remain high in most countries. Levels of child malnutrition remain unacceptably high in most countries in the region, despite several countries having succeeded in lowering the total number of children suffering from malnutrition. In 2006, one in five children was malnourished in 60% of SADC countries for which data are available (Angola, DRC, Madagascar, Malawi, Mozambique, Namibia, Tanzania and Zambia). In Angola and DRC, the figure stood at one in three children; in Madagascar it was almost one in two children.

## FUTURE OUTLOOK

As already noted, recent total GDP growth rates in the SADC region have been impressive. But given the high proportion of the population residing in rural areas, the region's stagnant or declining levels of agricultural productivity is cause for concern. Clearly, several agriculture-specific investments are required to reverse these trends. The areas requiring attention are well-known, for example, rural transport and market infrastructure, agricultural R&D and extension. The 6% agricultural GDP and 7% total GDP targets proposed by the CAADP and RISDP, respectively, are useful indicators of the capacity

of countries to make such investments. Angola, Mozambique and Tanzania have shown that the targets are attainable. Recent performance suggests that both these trajectories are within reach for many countries in the region. However, the rate of performance must speedup considerably if poverty and hunger are to be noticeably reduced.

The SADC is an inter-dependent region. Accordingly, reduction in intra-regional barriers to trade would assist in the improvement of the region's economic outlook. For example, growth in South Africa, coupled with reductions in trade barriers could have important implications for regional food security. Specifically, it could generate additional annual growth in food consumption in the SADC region. In addition, growth in SADC's other five middle-income countries would also improve regional food security and growth.

The SADC region faces a real risk that hard-won gains in growth and poverty reduction will be reversed by rising food costs. Prices of most crops are expected to continue to climb and remain well over their 2004 levels through to 2015 (World Bank 2008). This will pose twin challenges for SADC governments. One challenge is to protect the poor from food price increases, ensuring that those who are living on the edge are not pushed into destitution. The other is to harness higher prices to stimulate greater food production and increase rural incomes over the long run. Responses to the first challenge must not be allowed to undermine the responses to the second.

# 1. Introduction

This report provides a synthesis of recent trends and future prospects for agricultural growth, poverty reduction and investment in the SADC region (Figure 1). Motivation for the report comes from the need to understand the progress in the region toward key targets for growth and poverty reduction, with an added focus on the performance of the region's agricultural economies, which continue to dominate livelihoods and employment for millions of southern Africans.

The **Millennium Development Goals (MDGs)** are the world's time-bound and quantified targets for addressing extreme poverty in its many dimensions. Of the eight goals, this report looks at MDG1: to eradicate extreme poverty and hunger by 2015. The issue is how far SADC countries have gone in making progress towards reducing the proportion of people living on less than a dollar a day, and reducing the proportion of people who suffer from hunger.

The **Comprehensive Africa Agriculture Development Programme (CAADP)**, which was adopted by all 50 AU member states in 2002, aims to sensitize African policymakers about the need for concerted action towards sustainable agricultural development in Africa, and to facilitate transparent priority setting and resource mobilization accordingly. The report considers the CAADP's targets of an annual growth rate of 6% per annum if they are to achieve the MDG1.

The **SADC's Regional Indicative Strategic Development Plan (RISDP)** prioritizes sustainable and equitable economic growth and socioeconomic development with the aim of poverty eradication, and identifying a number of key targets. Those targets considered in this report include: achieving a GDP growth of at least 7% per annum; halving the proportion of people who live on less than a dollar a day; increasing fertilizer consumption from 44.6 kilograms per hectare (kg/ha) of arable land to 65 kg/ha of arable land by 2015; increasing cereal yield from an average of 1,392 kg/ha to 2,000 kg/ha by 2015; and increasing livestock production by at least 4% annually.

This report provides an overview of national and regional performance against each of these targets. For consistency, when making comparisons across different countries, commonly available databases such as FAOSTAT (FAO) and the World Development Indicators (World Bank) were used while data from national sources were used to illustrate the trends. It is worth noting that using country level data for doing a cross-regional comparison posed a challenge. Hence, national level data are used for illustrations of regional trends.

The Regional Strategic Analysis and Knowledge Support Systems for Southern Africa (ReSAKSS-SA) selected public investment in agriculture as the focal theme for 2008. The report, thus, examines the SADC region's progress towards meeting the commitments made by African heads of state and the government in the 2003 Maputo Declaration on Agriculture and Food Security to allocate at least 10% of national budgetary resources to agricultural sectors. Further, to understand the challenges and opportunities facing governments as they strive to meet this target, a case study of Malawi is undertaken. Malawi has made a strong commitment to agriculture and is one of the few countries with in-depth country-level data, including data on public expenditure on agriculture.

Recent research under the ReSAKSS-SA has explored options for accelerating and widening growth opportunities in the SADC region (Nin-Pratt et al. 2007). This report highlights the key findings of that study, aiming to shed light on the region's most promising prospects for agricultural growth.

In Chapter two, recent trends linked to SADC's agricultural sectors are summarized. Total GDP, agricultural GDP, agricultural productivity, food prices, income and poverty, and hunger are analyzed. Important differences emerge across countries. In addition, the region's progress towards achieving MDG1 and the targets of the CAADP and RISDP are assessed.

Chapter three focuses on the theme of the ReSAKSS-SA: Public expenditure on agriculture. A brief region-wide analysis is supplemented by an in-depth examination of the Malawi case While the regional picture is a disappointing one, the Malawi example offers important insights into and lessons on potential pathways towards increased public investment in agriculture. Chapter Four looks ahead, seeking to shed light on SADC's growth prospects. The region's heterogeneity emerges as a potential platform on which to design growth and poverty reduction strategies that confer benefits on countries at different stages of development. Broad conclusions round out the analysis.


**FIGURE 1**. THE SADC REGION

# 2. Recent Trends and Progress towards Achieving Targets

This chapter considers how SADC countries have performed in several relevant areas — total GDP, agricultural GDP, underlying agricultural productivity (as captured by yields and production of major crops and livestock, and consumption of fertilizer), food prices, income and poverty, and hunger. The aim is not only to dissect each measure country-by-country, but also to present region-wide patterns while shedding light on important differences across countries. Having set the stage for the examination of the progress of SADC countries towards achieving key targets for growth and poverty reduction, the preceding analysis provides an opportunity to assess SADC's success in achieving key targets set out in MDG1, and by the CAADP and RISDP. The approach is to quantify gaps between recent levels of relevant variables and corresponding targets. Major divergences are evident across the region. The gaps divided by the divergences are computed to give percentages of reduction or growth required to meet the targets.

## *2.1 Economic Growth and the Gross Domestic Product (GDP)*

In 2007, the combined GDP of the SADC countries stood at US$265 billion, while the average per capita GDP was approximately US$1,300. Using GDP per capita income as a proxy of the level of development, eight of the fourteen SADC countries can be classified as low-income countries, namely: DRC, Lesotho, Madagascar, Malawi, Mozambique, Tanzania, Zambia and Zimbabwe, while Angola, Namibia, Swaziland, Botswana, Mauritius and South Africa are middle-income countries. South Africa's GDP in 2007 was US$177 billion, making it more than twice as large as the GDP of all other SADC countries combined (Figure 2).

Shares of regional GDP have been relatively stable since 1990, with only strife-torn Zimbabwe and the DRC showing discernible reductions, and Angola registering an important increase during its crucial post-conflict phase (Figure 3). Overall, GDP growth in the SADC region has been impressive since 2003, averaging well over 5% per year, slightly higher than the continent-wide level (Figure 4). Half of the SADC countries registered growth rates of 5% or higher in 2006/07 with Angola, Malawi and Mozambique performing exceptionally well. Relatively poor performers by regional standards included Botswana, Lesotho, Mauritius, Swaziland and Zimbabwe.

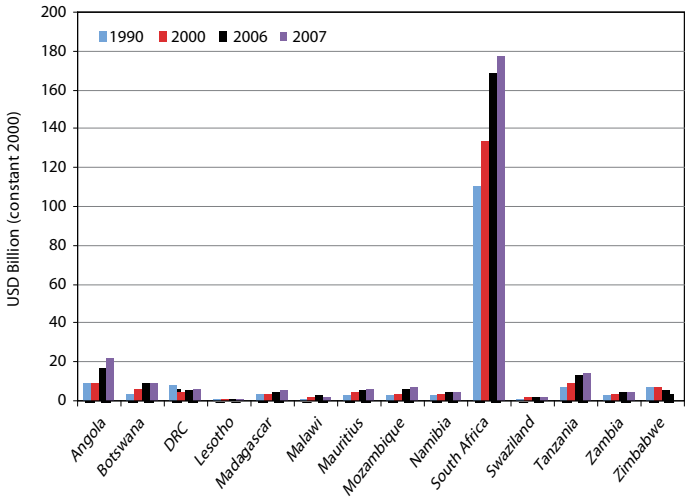


**FIGURE 2**. TRENDS IN GDP IN SADC COUNTRIES (1990–2007)
Data source: World Bank (2008); see also Annex, Table A2 (a)

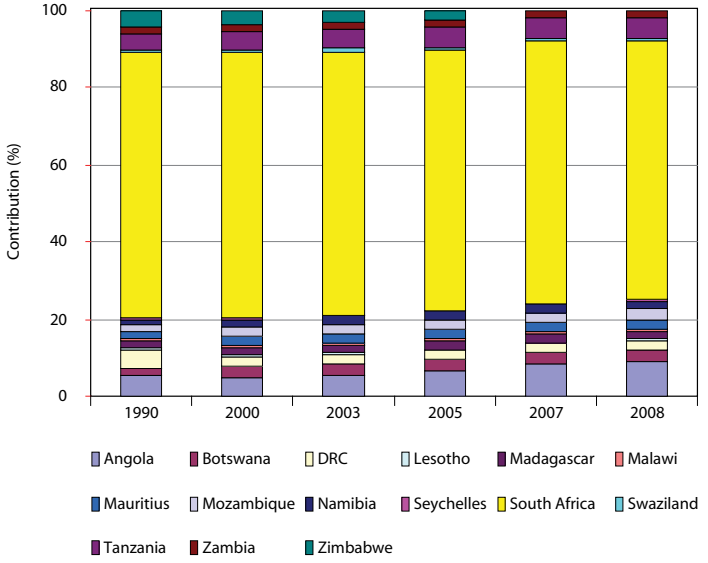


**FIGURE 3**. COUNTRY CONTRIBUTIONS TO SADC GDP (1990–2008)
Data source: World Bank (2008); see also Annex, Table A2 (b)

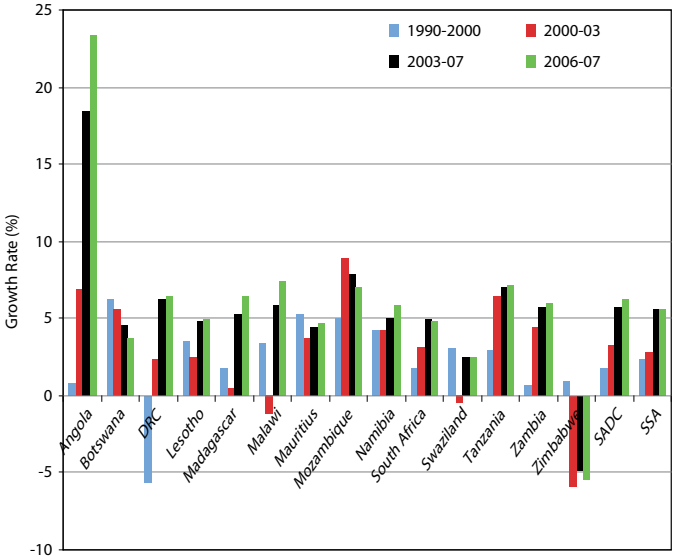


**FIGURE 4**. TRENDS IN ANNUAL GDP GROWTH RATES OF SADC COUNTRIES (1990–2007).
Data source: World Bank (2008); see also Annex, Table A2 (a)

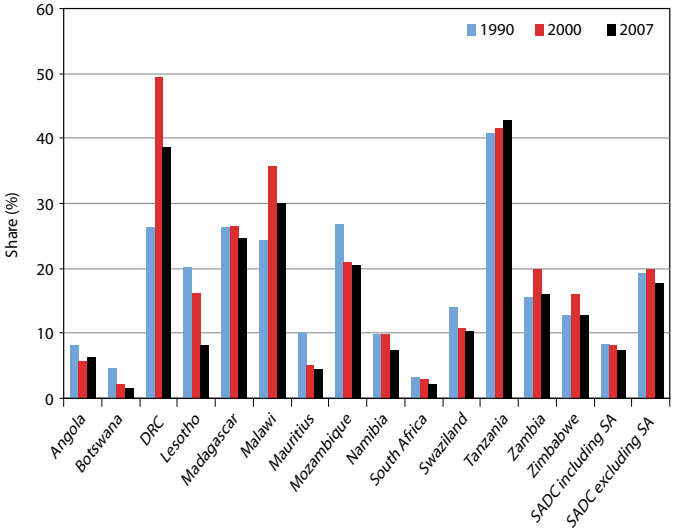


**FIGURE 5**. TRENDS IN THE SHARE OF AGRICULTURE IN GDP IN SADC COUNTRIES (1990–2007).
Data source: World Bank (2008); see also Annex, Table A3

## *2.2 Agricultural Gross Domestic Product*

Agriculture accounts for more than 20% of GDP in five SADC countries DRC, Madagascar, Malawi, Mozambique and Tanzania (Figure 5). The average share for the region, excluding South Africa is 17.6% (this figure falls to 7.3% when South Africa is included), indicating the relative importance of the agricultural sector in the economies of low-income countries of southern Africa. However, these levels are relatively low for Africa. By comparison, in Eastern Africa, the regional average share is 42% (World Bank 2008). The five SADC countries in which agriculture accounts for more than 20% of GDP together produce 61% of the region's agricultural value added. Tanzania has the region's largest agricultural sector, having overtaken South Africa between 2000 and 2007 (Figures 6 and 7). Agriculture in South Africa is small relative to its other sectors, but it is still as larger than the next two largest agricultural economies in the region (DRC and Angola) in 2007.

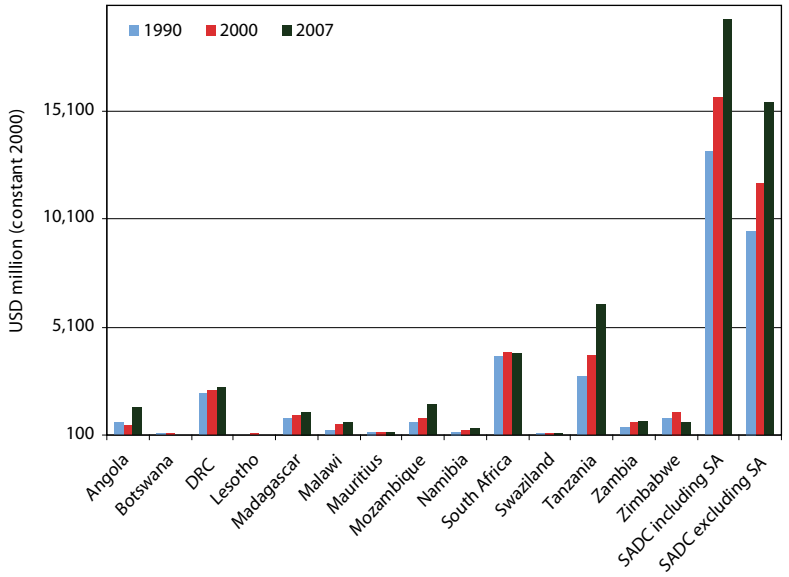


**FIGURE 6**. TRENDS IN AGRICULTURAL GDP IN SADC COUNTRIES (1990–2007)
Data source: World Bank (2008); see also Annex, Table A3

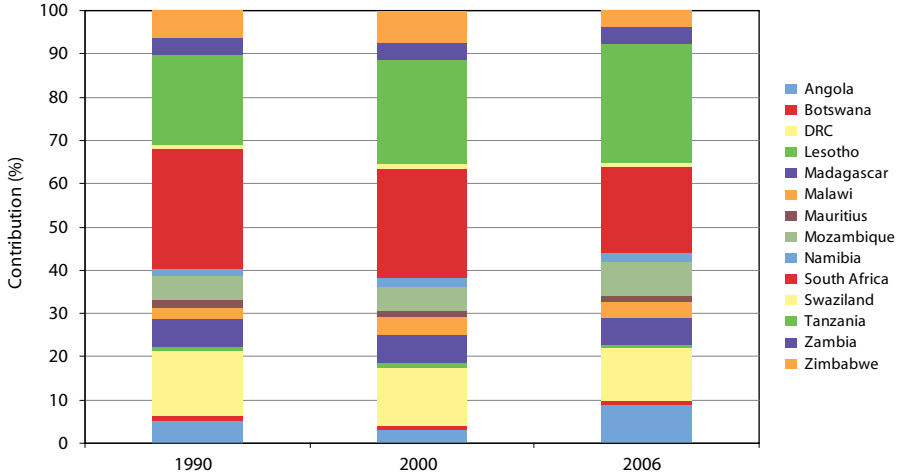


**FIGURE 7**. TRENDS IN COUNTRY CONTRIBUTIONS TO SADC AGRICULTURAL GDP (1990–2007)
Data source: World Bank (2008); see also Annex, Table A3

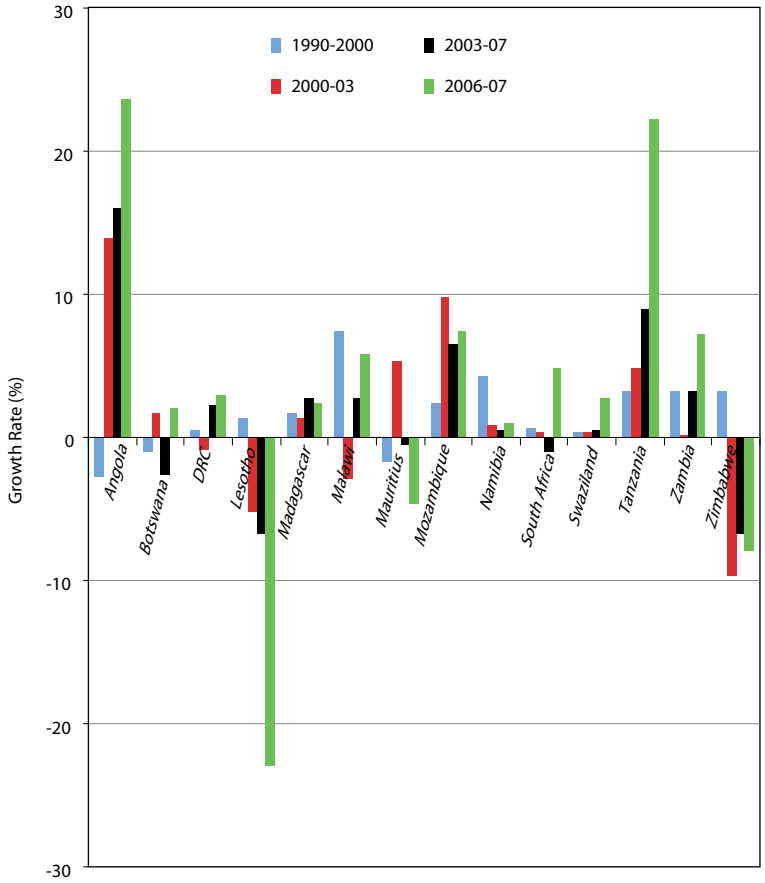


**FIGURE 8.** TRENDS IN ANNUAL AGRICULTURAL GROWTH RATES IN SADC COUNTRIES (1990–2007)
Data source: World Bank (2008); see also Annex, Table A3

With three exceptions that pull up the regional average (Angola, Malawi and Mozambique), SADC's agricultural sectors have performed poorly in recent years (Figure 8). It is worth noting that Angola and Mozambique are starting from a low base, while there has been a rigorous subsidy programme in Malawi, which could explain its remarkable performance. For the period 2006 to 2007, agriculture in Lesotho, Mauritius and Zimbabwe registered negative growth. Botswana registered negative growth previously but reversed the trend in 2006/07, albeit only to relatively low levels. Agricultural GDP growth in Namibia and Swaziland has remained unchanged since 2003. Under the NEPAD, CAADP and SADC RISDP, the SADC member countries have committed themselves to achieving 6 and 7% annual growth rates in agricultural GDP and GDP, respectively. However, countries are making diverse progress, and therefore have varying required increases in growth rates to achieve these targets.

Taking 2000/07 as a base, CAADP's target of a 6% growth rate in GDP has been achieved only by Angola, Tanzania and Mozambique (Figure 9). To reach the target, SADC as a whole must raise growth rates by 2% or more. DRC, Lesotho, Swaziland and Zimbabwe must register increases of more than 3%.

Taking 2000/07 as a base, Angola, Mozambique and Tanzania are again the only countries achieving the target thus far (Figure 10). A positive correlation between agricultural and economic growth in these countries emerges in these graphs.

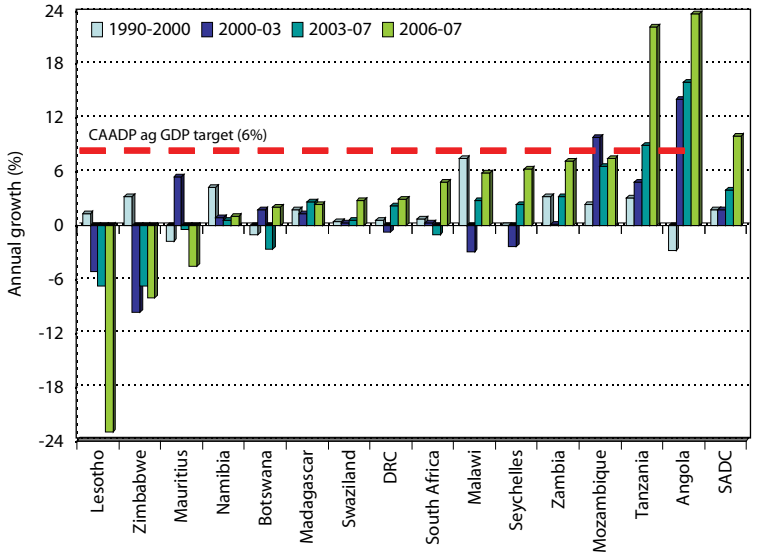


**FIGURE 9**. PROGRESS TOWARDS ACHIEVING THE 6% AGRICULTURAL GDP GROWTH: CAADP GROWTH TARGET
Source: World Bank (2008)

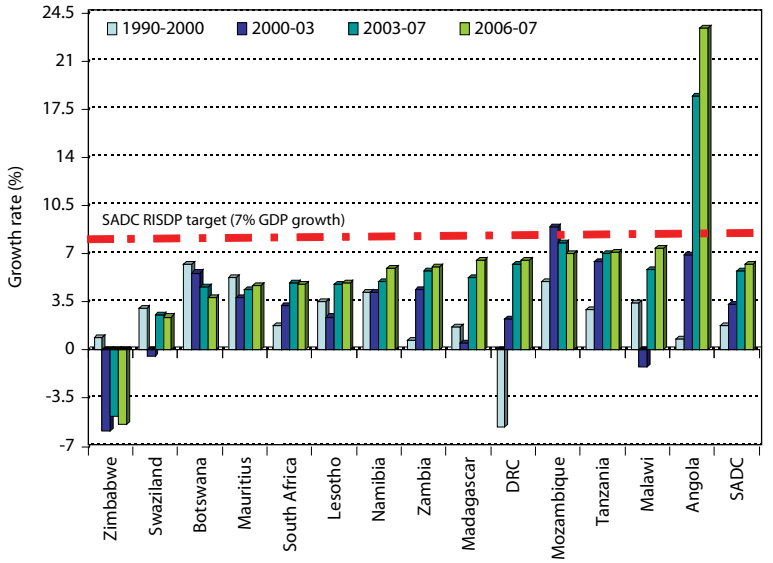


**FIGURE 10**. PROGRESS TOWARDS ACHIEVING THE 7% GDP GROWTH: SADC RISDP TARGET
Source: World Bank (2008)

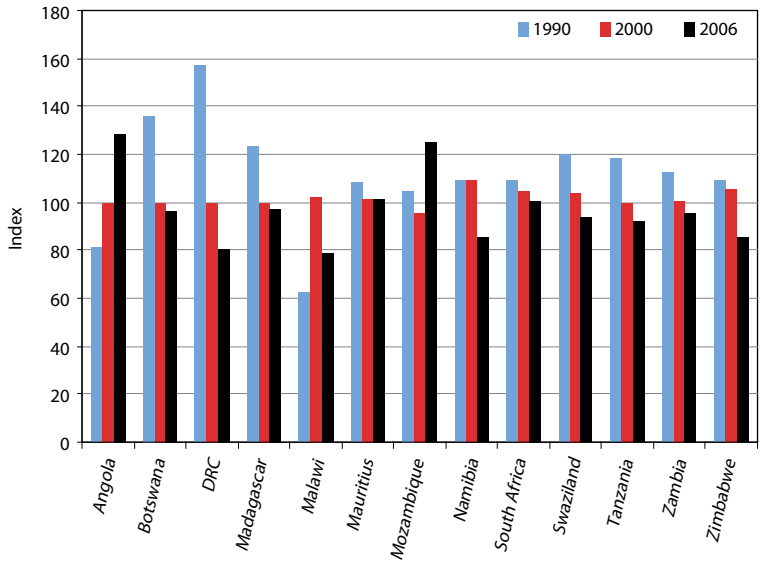


**FIGURE 11**. TRENDS IN PER CAPITA FOOD PRODUCTION INDEX IN SADC COUNTRIES (1990–2006)
Data source: FAO (2008c); see also Annex, Table A4

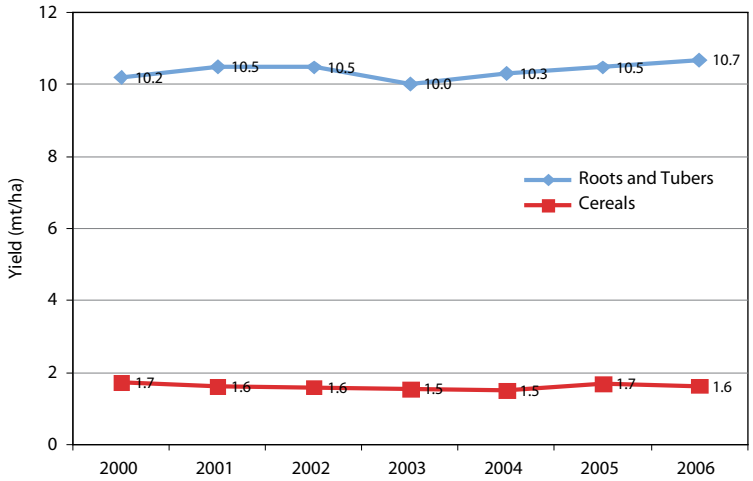


**FIGURE 12**. TRENDS IN YIELDS (METRIC TONNES/HA) OF CEREALS, AND ROOTS AND TUBERS, IN THE SADC REGION (2000–2006).
Data source: FAO (2008c)

## *2.3 Underlying Agricultural Productivity*

The poor aggregate performance of the region's agricultural sectors is grounded in sluggish growth in underlying agricultural productivity, which is largely a result of insufficient investment in agriculture, poor access to agricultural inputs (especially fertilizers and improved seeds), poor access to markets and low levels of technology development and use. Other factors explaining the underlying low productivity include adverse climatic conditions, HIV/AIDS, all of which threaten the livelihoods of farming households. In the period between 1990 and 2006, per capita food production increased in only two countries (Angola and Mozambique) (Figure 11). In Botswana, per capita food production fell by more than 30% over this same period; in the DRC it fell by almost 50% during this period. These declines reflect slow growth or absolute declines in yields of cereals, and roots and tubers, which together dominate food production in the region. Since 2000 cereal yields have also declined, averaging between 1.5 and 1.7 mt/ha, compared to the average of 2 mt/ha in Africa (Figure 12). Furthermore, despite a steady rise in region-wide yield of roots and tubers in the late 1990s (reaching 10 mt/ha compared to the average of 8 mt/ha in Africa), the yields have remained relatively flat since then (Figure 12).

Flat region-wide yields of cereals, and roots and tubers, stem from slow growth in yields at the country level in most SADC countries (Figures 12 and 13). For cereals, only Mauritius and South Africa registered yield increases of 50% or more between 1999 and 2006; yields in Malawi fell by almost that amount over the same period. For roots and tubers (Figure 13), only Mozambique recorded a significant increase in yields, from 7,000 kg/ha in 2004 to over 10,000 kg/ha in 2006. Yields of roots and tubers doubled in Malawi between 1999 and 2001 but then fell thereafter. Mauritius also registered a major decline in yields in roots and tubers between 1999 and 2004 but recovered sharply in 2005 and 2006 (Figure 13). The RISDP target to increase cereal yield from an average of 1,392 to 2,000 kg/ha has been attained by only Madagascar, Mauritius and South Africa (Figure 14). Seven countries must increase average yields by over 1,000 kg/ha. Three countries must increase yields by over 700 kg/ha. The region as a whole must increase yield by over 400 kg/ha (Figure 15).

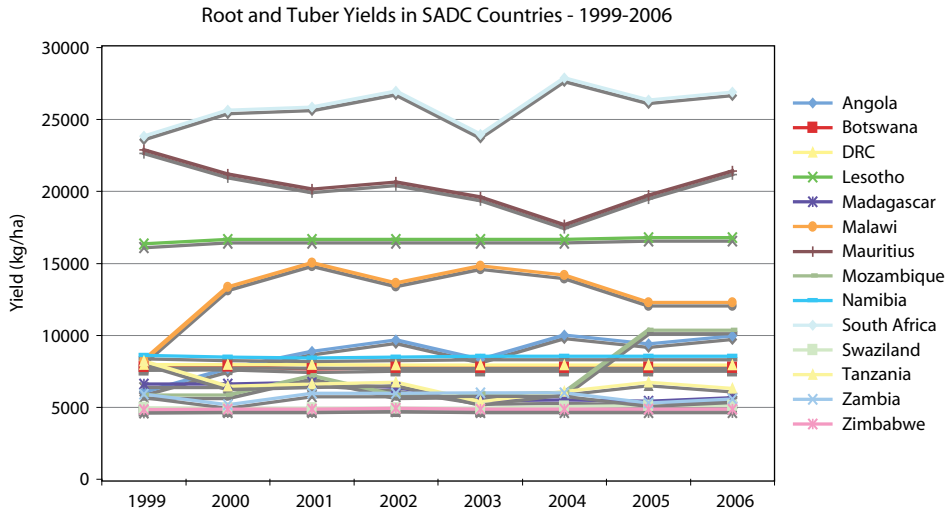


**FIGURE 13.** TRENDS IN COUNTRY-LEVEL YIELDS OF ROOTS AND TUBERS
Data Source: FAO (2008c); see also Annex, Table A5

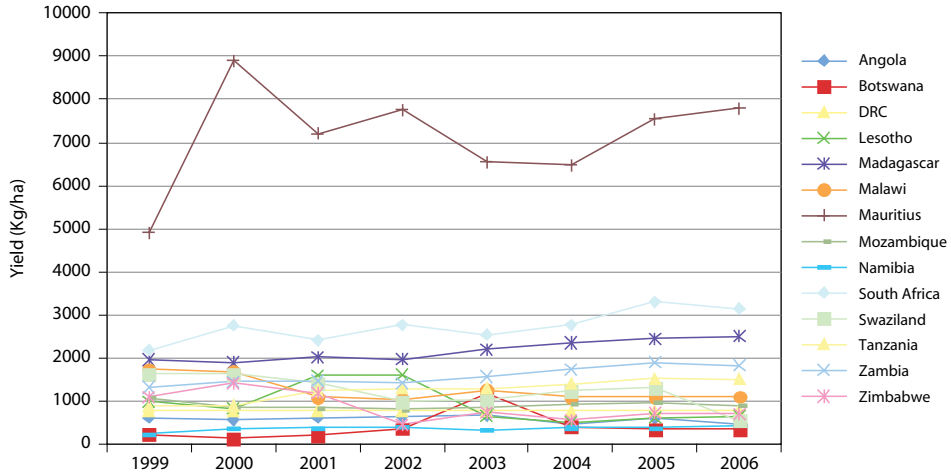


**FIGURE 14.** TRENDS IN CEREAL YIELDS IN SADC COUNTRIES (1999-2006)
Data source: FAO (2008c); see also Annex, Table A6

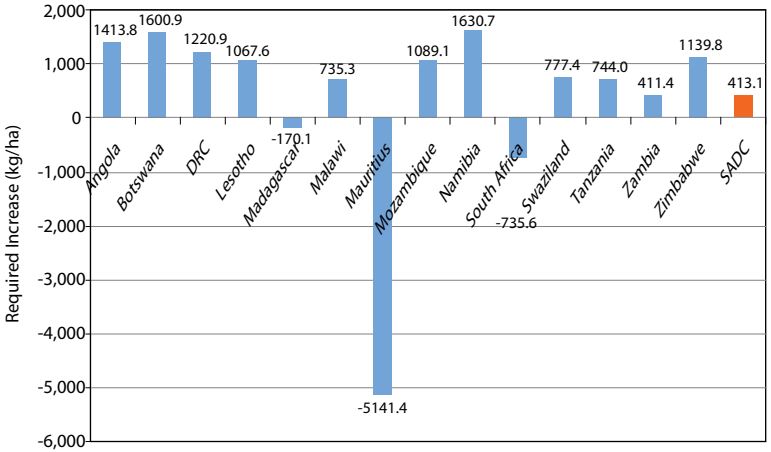


**FIGURE 15**. REQUIRED INCREASE IN CEREAL YIELDS (KG/HA) TO ACHIEVE 2,000 KG/HA (BASE = 1999–2006)
Source: Authors' computations

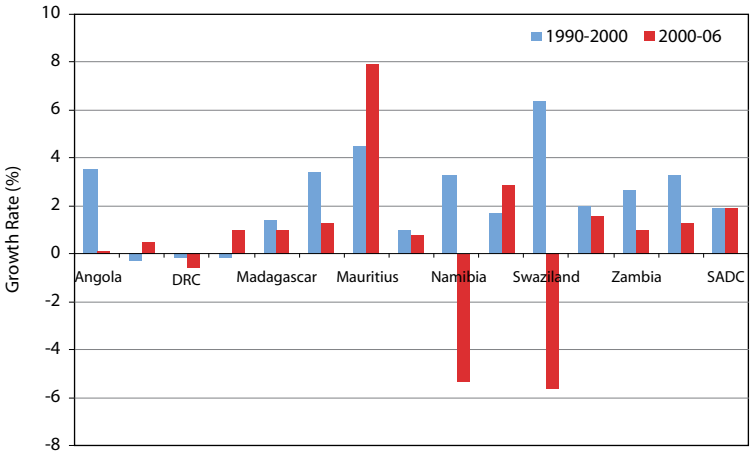


**FIGURE 16**. TRENDS IN ANNUAL GROWTH RATE IN LIVESTOCK PRODUCTION IN SADC COUNTRIES (1990–2006)
Source: FAO (2008c); Annex, Table A7

With the exception of Mauritius and South Africa, the region's livestock sectors have also grown slowly or contracted in recent years (Figure 16). In the period between 2000 and 2006, Namibia and Swaziland, in particular, suffered large declines. Livestock production in the SADC as whole grew by barely 2% over this period, well below the population growth rate of 2.4%.

The RISDP target to increase livestock production by at least 4% annually has been achieved by only Mauritius (Figure 16). The region as whole must increase production by over 2%, with DRC requiring an increase of over 4%, and Namibia and Swaziland each requiring increases of over 9% (Figure 17).

Fertilizer use is a strong driver of agricultural productivity growth, and also a powerful indicator of production incentives. Despite the important role that the increased use of fertilizer can play in raising yields, several countries showed a mixed picture in fertilizer use between 2000 and 2002 albeit typically from small bases (Figure 18). The RISDP target to increase fertilizer consumption from 44.6 to 65 kg/ha been achieved only by Mauritius and South Africa (Figure 18). The SADC-wide average must increase by 24 kg/ha, with only Lesotho, Malawi, South Africa, Swaziland and Zimbabwe needing lower or comparable increases. All other countries must increase consumption by over 50 kg/ha (Figure 19).

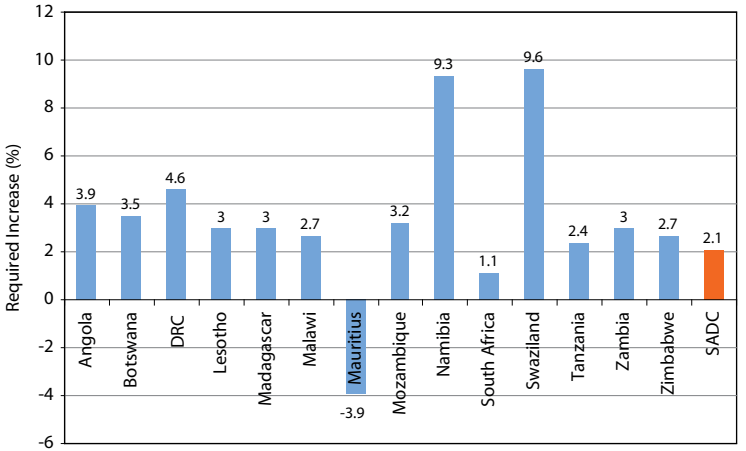


**FIGURE 17**. PERCENTAGE ANNUAL GROWTH RATE IN LIVESTOCK PRODUCTION REQUIRED TO ACHIEVE 4% GROWTH (BASE = 2000–2006)
Source: Authors' computations

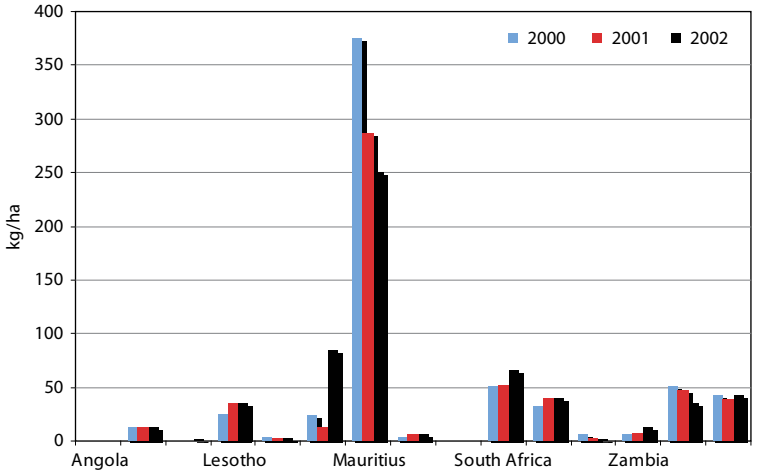


**FIGURE 18**. TRENDS IN FERTILIZER CONSUMPTION IN SADC COUNTRIES (2000–2002)
Data source: FAO (2008c); see also Annex, Table A8

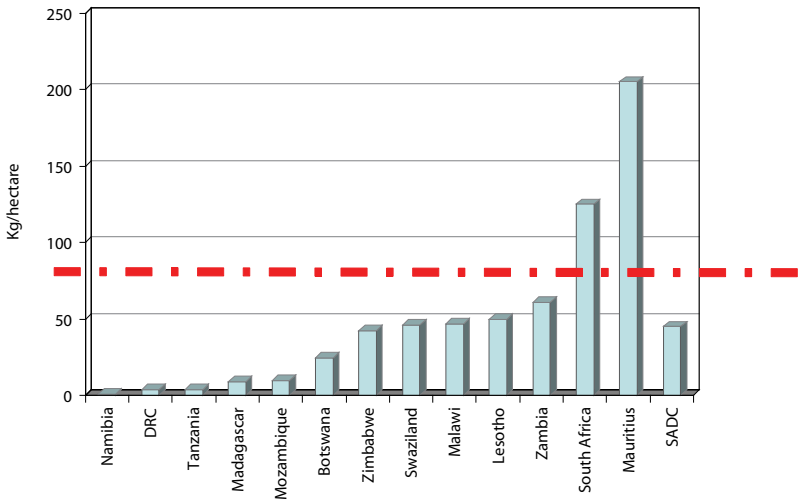


**FIGURE 19**. FERTILIZER CONSUMPTION YET TO ACHIEVE SADC RISDP TARGET OF 65 KG/HA

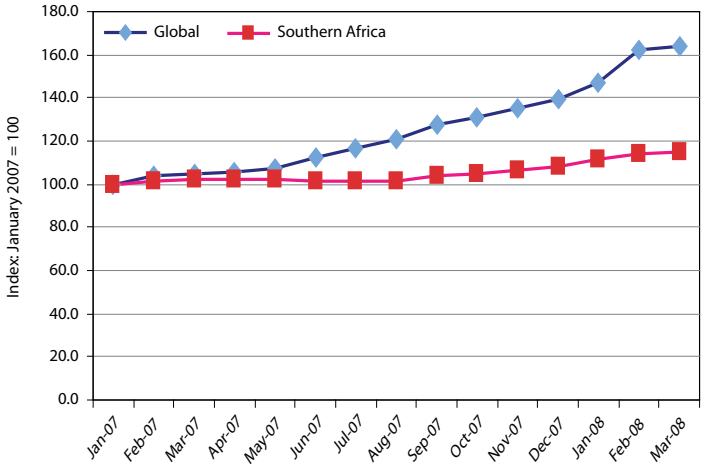


**FIGURE 20**. GLOBAL AND SOUTHERN AFRICAN FOOD PRICE INDICES (2007/08)

Data sources: FAO (2008a); Lesotho Bureau of Statistics (2008); National Statistical Office of Malawi (2008); Bank of Namibia (2008); SAFEX (2008); Statistics South Africa (2008); National Bureau of Statistics Tanzania (2008); Central Statistical Office Zambia (2008).

Notes: The global food price index is computed by FAO and covers a basket of 55 different food items. The southern Africa food price index is computed as a population-weighted average of official food price indices reported by national statistical agencies of Lesotho, Malawi, Namibia, South Africa, Tanzania and Zambia. These indices cover the major staples, meat, fish, dairy products, fruits, vegetables, non-alcoholic beverages, sugar and key confectionaries.

## *2.4 Food Prices*

World food prices have roughly doubled over the last five years. Food prices in the southern Africa region have also been increasing, but at a slower pace (Figure 20). Between January 2007 and March 2008, food price indices rose by between 11 and 20% in several countries in the region (Figure 21). The smallest increases were seen in Malawi (11%), Zambia (13%), and Tanzania (13%), three countries with relatively large maize economies. All three countries were significant food exporters during this period, but each recently introduced bans on maize exports, which may have helped shield them from external price increases.[1] South Africa and Namibia registered mid-range increases for the group (16 and 17%, respectively) but likely for different reasons. Namibia is an important food importer, but it usually produces a significant share (close to 50%) of its needs for those grains showing the greatest price increases on global markets. South Africa's food economy is large and thus more stable than most others elsewhere in the region. It has been struggling to cope with a depreciating currency, which is driving up costs of all imports, including food. Lesotho is heavily reliant on imported food and thus registered the largest increase of approximately 20% over the 15 months.

[1] Note, however, that once domestic supplies in Malawi began to fall, prices rose much more quickly than did those in other countries—more than 20% in the six months from July 2007 to January 2008.

Between April 2007 and March 2008, average market prices of maize, the region's most important food commodity, were up 32% in Zambia, 65% in Mozambique, and well over 100% in Malawi and Tanzania (FEWSNET 2008; RATIN 2008). The price of maize in Zimbabwe was not spared given the effects of that country's hyperinflation. In South Africa, the largest market in the region (producing 65% of the SADC maize), the spot price for maize in early 2008 was 35% higher than it was in January 2007 (SAFEX 2008).

## *2.5 Income and Poverty*

In 2006, six out of 10 people living in the SADC resided in rural areas (FAO 2008c). The region's agricultural performance was, therefore, a strong determining factor in the quality of life of over 150 million people. The region-wide average per capita GDP between 2000 and 2007 was about US$1,300 (Figure 22). But a clear majority of countries averaged US$500 or less. With the exception of South Africa, countries whose agricultural sectors performed poorly between 2000 and 2007 also registered low per capita GDP levels. Countries with relatively large agricultural sectors and large rural populations (Tanzania, DRC, Madagascar and Mozambique) recorded especially low per capita GDPs. Conversely, countries with relatively small agricultural sectors and rural populations (Botswana, Mauritius and Swaziland) fared much better.

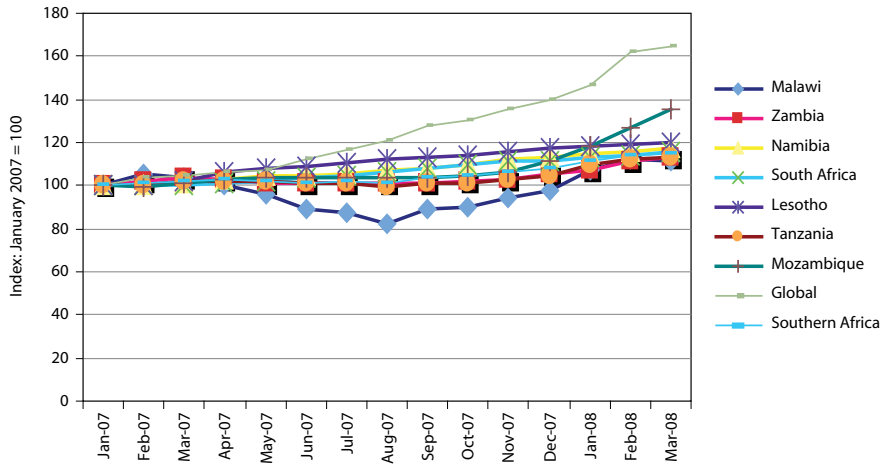


**FIGURE 21**. TRENDS IN FOOD PRICE INDICES IN SELECTED COUNTRIES IN SOUTHERN AFRICA (JANUARY 2007–MARCH 2008)

Data source: Lesotho Bureau of Statistics (2008); National Statistical Office of Malawi (2008); Bank of Namibia (2008); SAFEX (2008);Statistics South Africa (2008); National Bureau of Statistics Tanzania (2008); Central Statistical Office Zambia (2008).

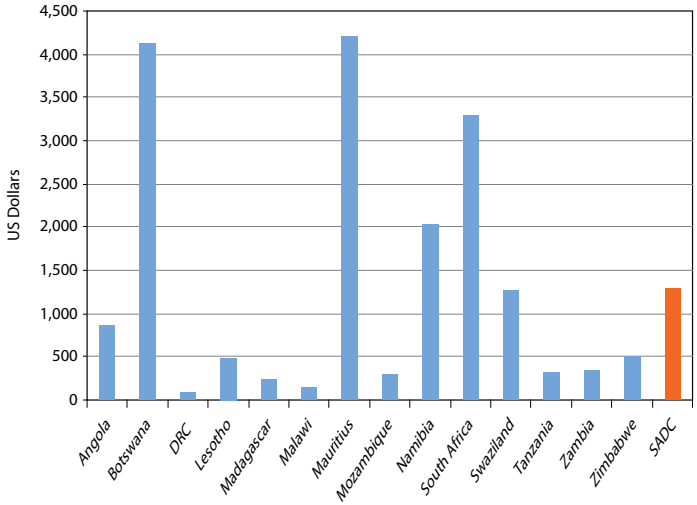


**FIGURE 22**. TRENDS IN AVERAGE PER CAPITA GDP IN SADC COUNTRIES (2000–2007)

Data source: World Bank (2008); see also Annex, Table A9

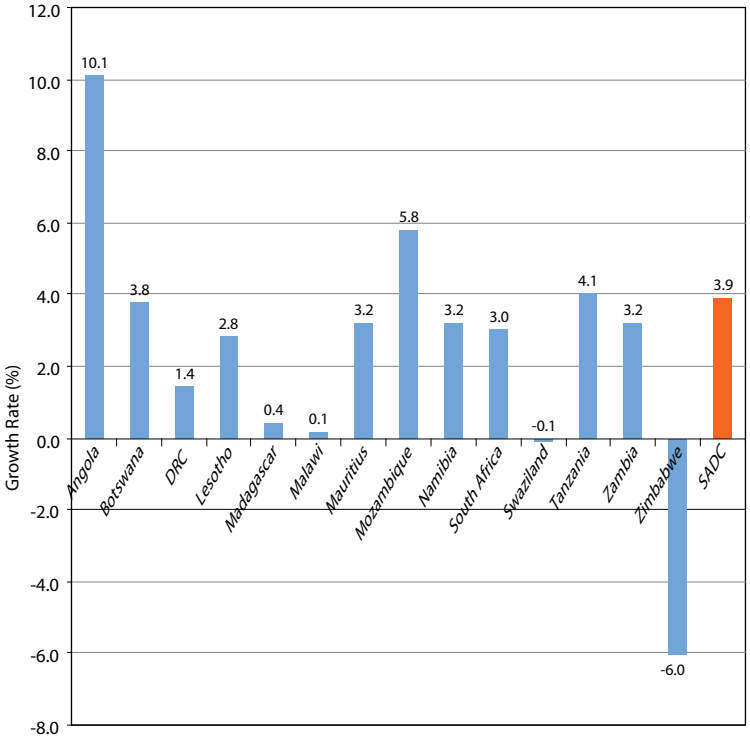


**FIGURE 23**. TRENDS IN AVERAGE ANNUAL PER CAPITA GDP GROWTH RATES IN SADC COUNTRIES (2000–2007).
Data source: World Bank (2008); see also Annex, Table A9

The picture for recent per capita GDP growth rates is more mixed (Figure 23). As noted earlier, overall GDP growth was strong in the SADC region between 2000 and 2007, resulting in a fairly robust growth of 3.3% in per capita GDP for the region over this period. At the country level, with the exception of Malawi, whose rural population in 2006 stood at 82%, strong growth in aggregate GDP translated into relatively high growth in per capita GDP. The high negative rate for Zimbabwe was a direct result of the political and economic crisis facing the country.

Per capita GDP data are only illustrative of poverty conditions. Fully comparable national poverty data based on household expenditures are not available for the region. Unfortunately, the data that is available is inconsistent. However, preliminary insights into current conditions and recent trends emerge from the interpolation of data from national poverty surveys in Madagascar, Malawi, Mozambique, South Africa, Tanzania, Zambia and Zimbabwe (Figure 24).

Among these seven countries, Mozambique appears to have had the greatest success in cutting poverty. Mozambique's national poverty rate fell by 15% between 1996 and 2003, but the overall level stood at over 50%. None of the other countries have made significant progress towards the attainment of MDG1 of halving poverty and hunger by 2015. Most countries require relatively high percentage reductions in prevalence of undernourishment in order to achieve the MDG1 target (Box 1). Malawi's national poverty rate was 54% in 1990 and 51% in 2004. Zambia's national poverty rate was 70% in 1990 and stood at 68% in 2004, having risen to 74 and 73% in 1993 and 1998, respectively. South Africa's poverty rate fell from 50% in 1993 to 47% in 2004. Madagascar cut its national poverty rate by 2% between 1997 and 1999; Tanzania had a similar reduction between 1991 and 2000 (Figure 24).

These figures, though interpolated from patchy and slightly dated observations, are fully explained by the underlying structure of many SADC economies, where livelihoods of large numbers of people are rooted in agricultural sectors that have been stagnant or growing at a slow rate.

Early measures of the impacts of rising food prices on poverty in the region indicate that staple food price increases have a direct correlation with increases in poverty. For example, the rising food prices resulted in 2 and 4.4% increases in poverty in Malawi and Zambia, respectively (Ivanic and Martin 2008). The impact in Malawi is relatively lower, perhaps because of the country's recent successful effort to boost agricultural production, which has made it an important exporter of food to other countries in southern Africa. Other countries are likely to be even more vulnerable. FAO lists four SADC countries among those already facing food crises as a result of high food prices: DRC, Lesotho, Swaziland and Zimbabwe (FAO 2008b).

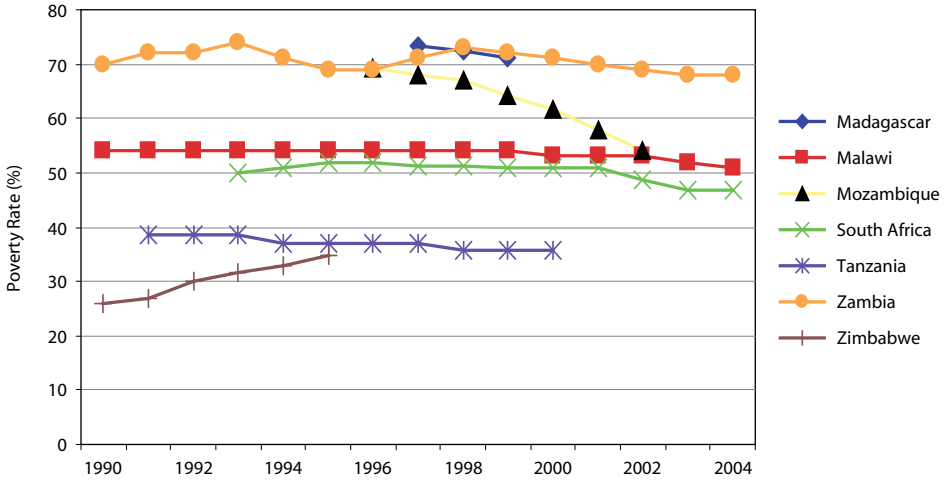


**FIGURE 24.** TRENDS IN NATIONAL POVERTY RATES IN SELECTED SADC COUNTRIES (1990–2005)

Data sources: Relevant National Poverty surveys; see also Annex, Table A10
Note: Schedules are interpolated based on observations from different years as follows:

| | |
|---|---|
| Madagascar | Observations in 1997 and 1999 |
| Malawi | Observations in 1990-92, 1998-00 and 2004-05 |
| Mozambique | Observations in 1996-97 and 2002-03 |
| South Africa | Observations in 1993, 1995, 2000 and 2004 |
| Tanzania | Observations in 1991 and 2000-01 |
| Zambia | Observations in 1991-91, 1993, 1996, 1998 and 2004 |
| Zimbabwe | Observations in 1990-1991 and 1995-96 |

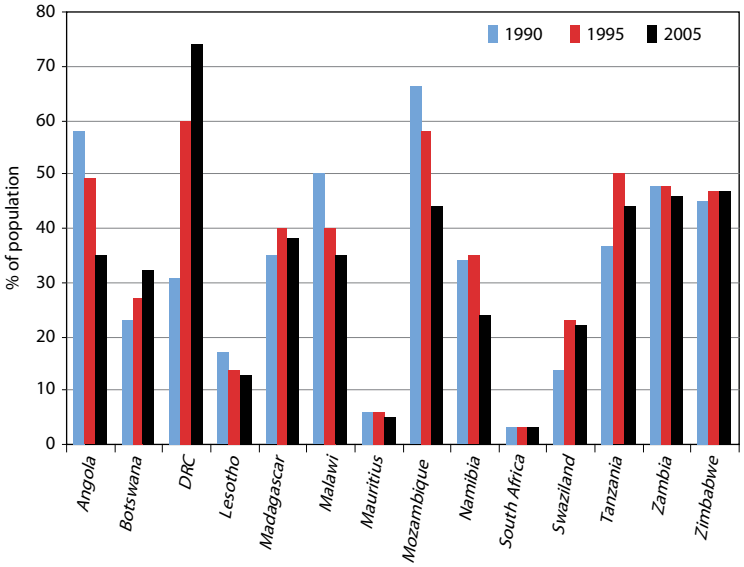


**FIGURE 25.** TRENDS IN THE PREVALENCE OF UNDERNOURISHMENT IN SADC COUNTRIES (1990–2005)
Data source: World Bank (2008)

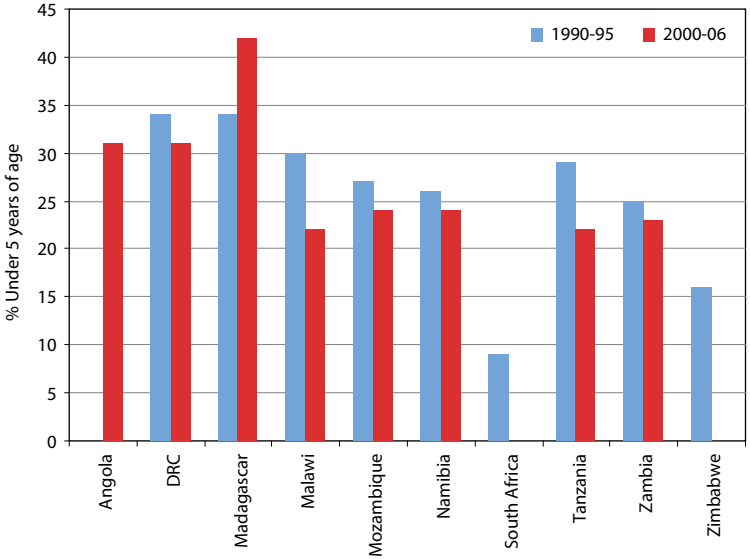


**FIGURE 26.** TRENDS IN THE PREVALENCE OF CHILD MALNUTRITION IN SADC COUNTRIES (1990–2006)
Data source: World Bank (2008)

## *2.6 Hunger*

While there has been some progress in reducing undernourishment in the overall population in many SADC countries, with Angola, Malawi and Mozambique standing out, levels of undernourishment remain high in most countries (Figure 25). Levels of child malnutrition remain unacceptably high in most countries in the region, despite several countries having succeeded in lowering the total number of children suffering from malnutrition (Figure 26). In 2006, one in five children was malnourished in 60% of SADC countries for which data are available (Angola, DRC, Madagascar, Malawi, Mozambique, Namibia, Tanzania and Zambia). In Angola and DRC, the figure stood at one in three; in Madagascar it was almost one in two.

**BOX 1. REQUIRED INCREASES TO ACHIEVE THE MILLENNIUM DEVELOPMENT GOAL 1: ERADICATING EXTREME POVERTY AND HUNGER BY 2015.**

**Millennium Development Goal 1: Halving poverty and hunger by 2015.**

**Due to insufficient data, an assessment of the success achieved in reducing the proportion of people living on less than one dollar a day was not possible. However, the available data does allow for an examination of the progress made towards reducing the proportion of people who suffer from hunger. Taking 2005 as a base, the data show that only Angola, Lesotho, Mauritius, Namibia and South Africa are within 10% of achieving the MDG1 hunger target (Figure 27). Botswana, DRC, Madagascar, Tanzania, Zambia and Zimbabwe have gaps of more than 20% to fill.**

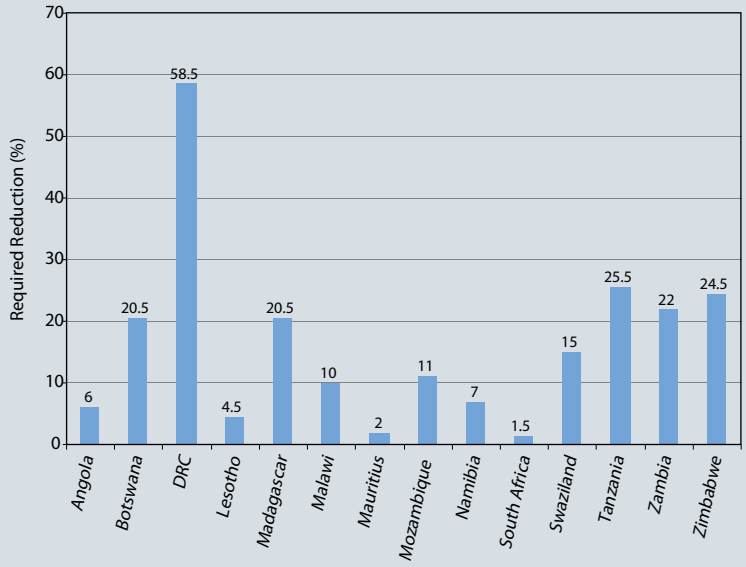


**FIGURE 27**. PERCENTAGE REDUCTION IN THE PREVALENCE OF UNDERNOURISHMENT REQUIRED TO REACH THE MDG1 TARGET IN SADC COUNTRIES (BASE = 2005).
Source: Authors' computations

# 3. Public Investment in Agriculture

The ReSAKSS-SA is especially concerned with public investment strategies that might help SADC countries achieve their regionally shared goals and targets. At issue are the level and composition of public expenditures devoted to the region's agricultural sectors. A region-wide perspective is presented first, followed by a focus on Malawi, the SADC country that has made most progress in increasing the share of agriculture in public expenditure, and for which detailed data is available.

## *3.1 A SADC-Wide Perspective*

As noted earlier, in 2003, African heads of state and the government adopted the Maputo Declaration on Agriculture and Food Security, committing their countries to allocate at least 10% of national budgetary resources to their agricultural sector. Most countries in the region have yet to achieve this target (Figure 28). Divergences from the targets of the Maputo Declaration vary widely across the region (Figure 29). For the SADC as a whole, the share of agriculture in public expenditure must increase by almost 5%, with eight countries needing larger increases. Botswana, DRC, and Mauritius face the greatest disparities. Only Malawi has consistently exceeded the target in recent years. Prior to 2005, Zimbabwe's share was only slightly below the target, but since then it has fallen sharply. A key point is that the 2007 country contributions to agriculture increased in all but four SADC countries between 2003 and 2007 (Lesotho, Mozambique, Swaziland and Zimbabwe).

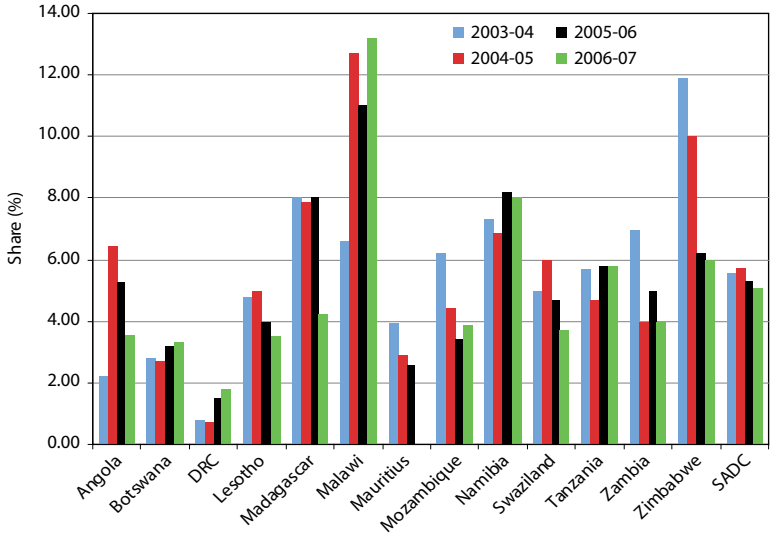


**FIGURE 28**. SHARE OF AGRICULTURE IN PUBLIC EXPENDITURE IN SELECTED SADC COUNTRIES (2003–2007)
Data sources: SADC (2008); Mpyisi (2007); Mwape (2008); UNECA (2007); see also Annex, Table A11

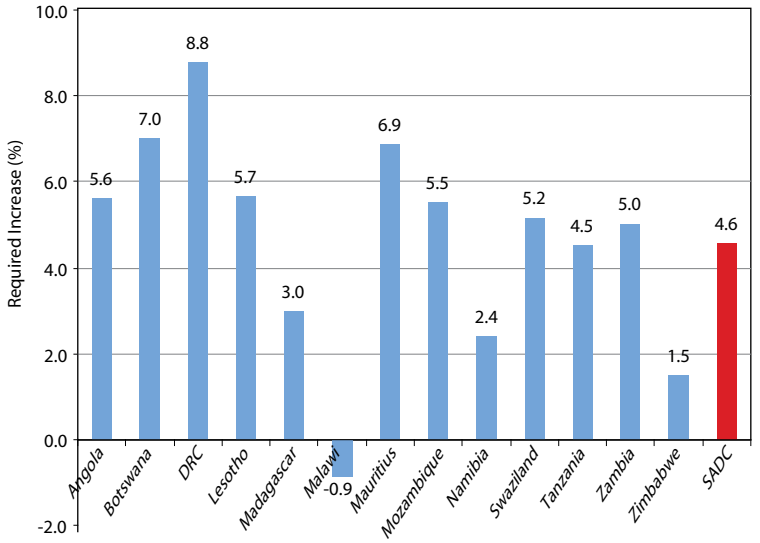


**FIGURE 29**. REQUIRED INCREASES IN THE SHARE OF AGRICULTURE IN PUBLIC EXPENDITURES TO ACHIEVE THE TARGETS OF NEPAD/CAADP OF 10% (BASE = 2002–2007)
Data source: Authors' computations

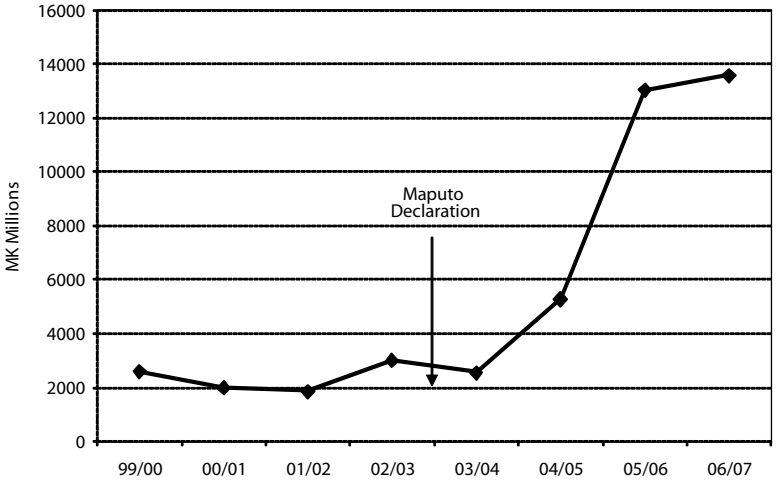


**FIGURE 30**. REAL PUBLIC EXPENDITURE ON AGRICULTURE IN MALAWI (1999–2007)
Data sources: Computed from various budget documents of Government of Malawi (GoM 1998a, 1998b, 1998c, 1998d, 2000, 2001, 2002, 2003, 2004a, 2004b, 2007a, 2007b, 2007c).

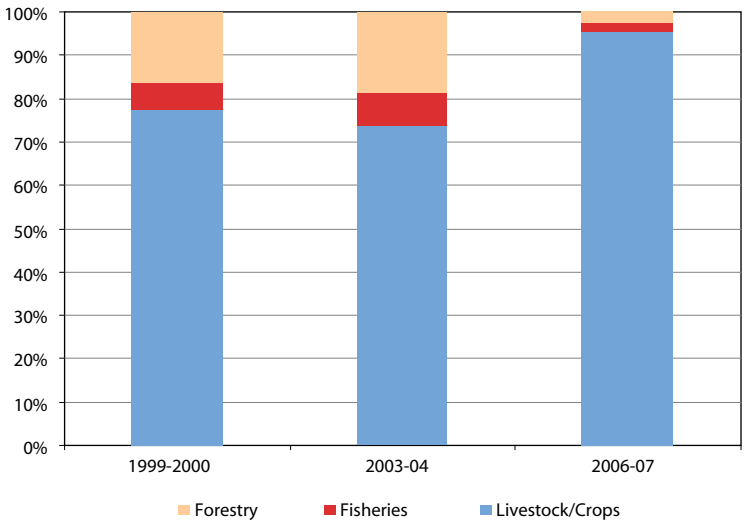


**FIGURE 31**. DISTRIBUTION OF PUBLIC EXPENDITURE ON AGRICULTURE IN MALAWI BY SECTOR (1999–2007)
Data sources: Computed from various budget documents of Government of Malawi (GoM 1998a, 1998b, 1998c, 1998d, 2000, 2001, 2002, 2003, 2004a, 2004b, 2007a, 2007b, 2007c; see Annex, Table A13

## *3.2 Focus on Malawi – A Success Story?*

Malawi's success in achieving the target of the Maputo Declaration for expenditure on agriculture presents a unique opportunity to understand the challenges and opportunities facing other SADC countries as they strive towards this target.

In Malawi, real public expenditure devoted to the agricultural sector has risen almost sevenfold since 2003 (Figure 30). The composition of this expenditure has also changed, with livestock and crops consuming almost the entire budget, at the expense of forestry and fisheries (Figure 31).

Frequent changes in the allocation of major projects and initiatives across programs complicate an analysis of budget allocation (Annex, Table A12). Especially problematic is the "Administration and Support" category, which grew tenfold between 2004/05 and 2006/07 (Figure 32). Large 'development' expenditures are included in this category. Also included in the category, under a large safety net-oriented "Nutrition and Food Security Program," are major subsidy initiatives such as the Targeted Input Program and Starter Pack Program, and support to parastatal agencies such as the Agricultural Development and Marketing Corporation (ADMARC) and the National Food Reserve Agency.

This Nutrition and Food Security Program appeared as a distinct development budget item in the 2004/05 fiscal year, when it accounted for 42% of the spending in crop and livestock development projects. However, its share of total (recurrent and development projects) spending rose from 39% in 2004/05 to 41% in 2005/06, and stood at 55% in 2006/07 (Figure 33). Without this program, between 2004 and 2007 the share of agriculture in Malawi's budget would have ranged between 3.6 and 8.1%, rather than being between 11 and 13.2% (Figure 34). Clearly, some initiatives in the Nutrition and Food Security Program are productivity and growth enhancing, for example, the Targeted Input Program and Starter Pack Program. But others would appear to be less so, for example, support to the National Food Reserve Agency. The latter category might, therefore, be imparting an upward bias on Malawi's reported share of public expenditure devoted to agriculture, clouding assessments of the country's success in achieving the 10% target set by the Maputo Declaration on a long-term basis.

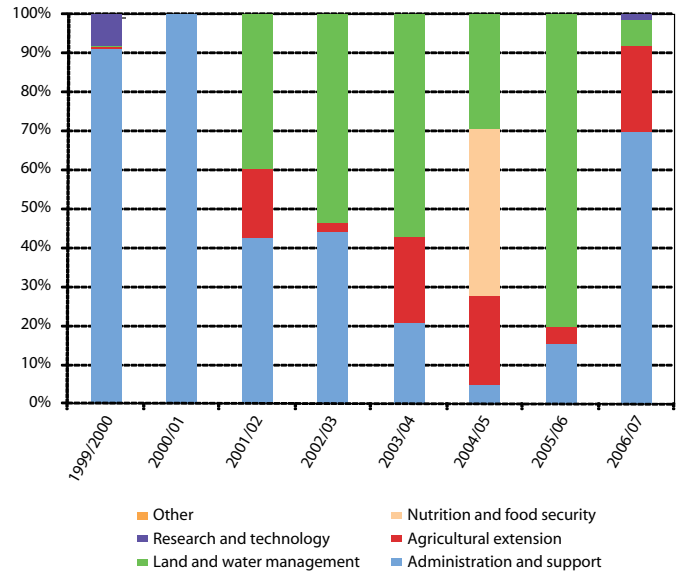


**FIGURE 32**. DISTRIBUTION OF AGRICULTURAL SPENDING ON DEVELOPMENT (CAPITAL PROJECT) IN MALAWI BY PROGRAM (1999–2007)

Data sources: Computed from various budget documents of Government of Malawi (GoM 1998a, 1998b, 1998c, 1998d, 2000, 2001, 2002, 2003, 2004a, 2004b, 2007a, 2007b, 2007c); Annex, Table 14.

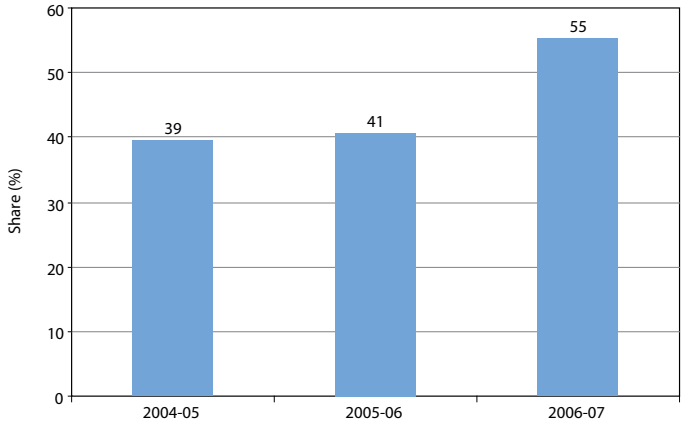


**FIGURE 33**. THE SHARE OF NUTRITION AND FOOD SECURITY IN THE AGRICULTURE BUDGET OF MALAWI (2004–2006)

Data sources: Computed from various budget documents of Government of Malawi (GoM 1998a, 1998b, 1998c, 1998d, 2000, 2001, 2002, 2003, 2004a, 2004b, 2007a, 2007b, 2007c).

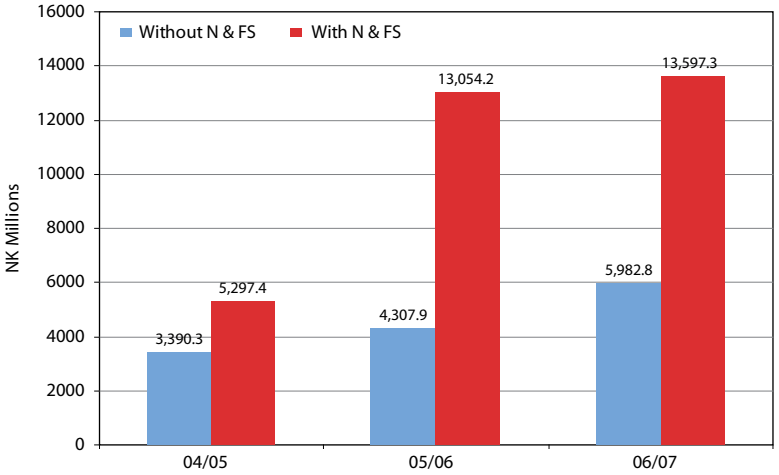


**FIGURE 34**. IMPACT OF NUTRITION AND FOOD SECURITY PROGRAMS ON AGRICULTURAL EXPENDITURE IN MALAWI (2004–2007)

Data sources: Computed from various budget documents of Government of Malawi (GoM 1998a, 1998b, 1998c, 1998d, 2000, 2001, 2002, 2003, 2004a, 2004b, 2007a, 2007b, 2007c).

Note: N&FS = Nutrition and Food Security

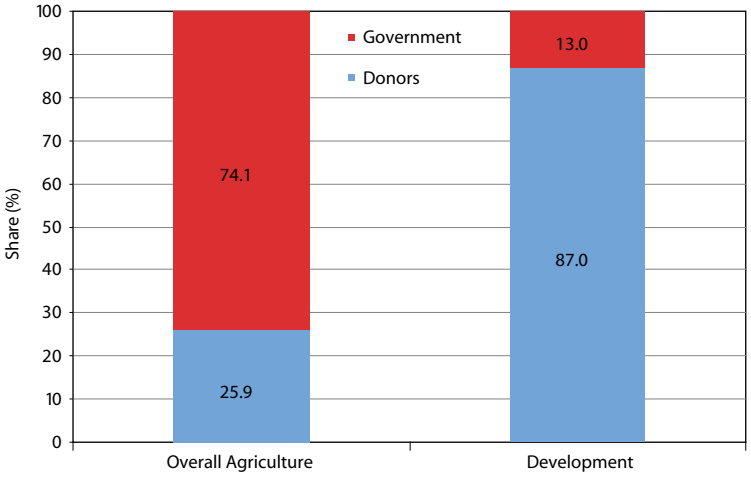


**FIGURE 35**. GOVERNMENT AND DONOR SHARES OF OVERALL AND DEVELOPMENT COMPONENTS OF THE AGRICULTURE BUDGET IN MALAWI (1999–2007)

Data source: Computed from various budget documents of Government of Malawi (GoM 1998a, 1998b, 1998c, 1998d, 2000, 2001, 2002, 2003, 2004a, 2004b, 2007a, 2007b, 2007c).

The recurrent budget supports normal operating costs, along with those associated with agricultural subsidy initiatives, ADMARC and the National Food Reserve Agency. The development budget supports investment in long-term assets such as irrigation infrastructure. In 2007, the recurrent share of Malawi's agriculture budget stood at almost 70%, compared to 50% in 1999; the 2007 development share was, therefore, well below its 1999 level, but it grew steadily between 2005 and 2007 (Figures 35 and 36).

While the Malawi Government assumed responsibility for almost three-quarters of the agriculture budget between 1999 and 2007, its development partners covered almost 90% of the crucial development component (Figure 36).

By devoting increasingly large shares of public resources to spur growth in the agriculture sector, Malawi is obviously a country that has made a strong commitment to agriculture. A number of potential lessons for other SADC countries emerge. The balance between 'productive' and 'safety net' components of the agriculture budget is not clear, but the steadily expanding development element suggests grounds for optimism that productive elements are receiving attention. Given Malawi's exposure to weather-related supply shocks, the need for vulnerability-reducing elements in the national budget is beyond dispute. Their potential for spurring growth in the agricultural sector has yet to be established, but their potential for protecting hard-won development gains should not be underestimated. The large share of recurrent expenditure in the budget is not ideal, but is also not unusual in a country at Malawi's stage of overall development. The division of labor between the government and its development partners appears sensible in the near term.

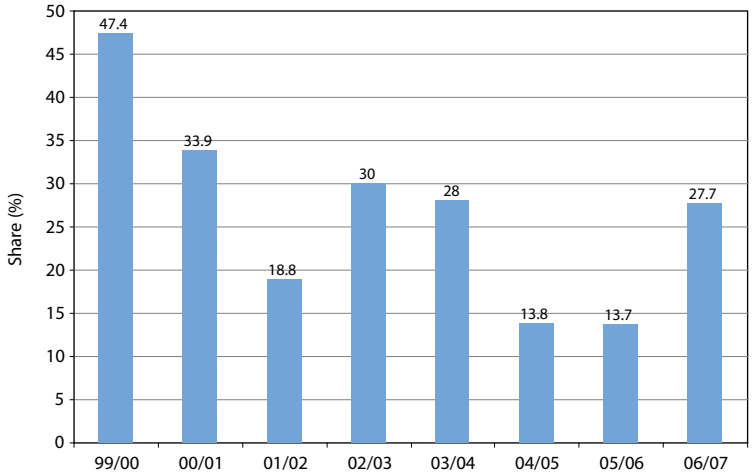


**FIGURE 36**. SHARE OF 'DEVELOPMENT' SPENDING IN THE AGRICULTURE BUDGET IN MALAWI (1999–2007)
Data source: Computed from various budget documents of Government of Malawi (GoM 1998a, 1998b, 1998c, 1998d, 2000, 2001, 2002, 2003, 2004a, 2004b, 2007a, 2007b, 2007c).

# 4. Future Outlook

How can all the targets for growth and development - to which the SADC region has committed itself - be most effectively achieved? To shed light on this question, this section considers opportunities for expanded regional growth and food security. At issue for many countries in the region is the likely source of sustainable demand for expanded supplies of agricultural products. Without growth in incomes outside agriculture and significant substitution of major imports, growth in agriculture can shift terms of trade against agriculture, negating gains from productivity growth (Nin-Pratt et al. 2007). Major opportunities arise from enhanced integration between countries at different stages of economic development. South Africa and the SADC's other middle-income countries in the region emerge as crucial elements of sustainable growth by providing outlets for agricultural products of the SADC's lower-income countries.

## *4.1 Alternative Ways to Achieve the GDP Growth Targets of the CAADP and RISDP*

As noted earlier, recent total GDP growth rates in the SADC region have been impressive. But given the high proportion of the population residing in rural areas, the region's stagnant levels of agricultural productivity are a cause for concern. Clearly, several agriculture-specific investments are required to reverse these trends. The areas requiring attention are well-known, e.g., rural transport and market infrastructure, agricultural R&D and extension. The 6% agricultural GDP and 7% total GDP targets proposed by the CAADP and RISDP, respectively, are useful indicators of the capacity of countries to make such investments. Angola, Mozambique and Tanzania have shown that these targets are attainable.

A useful regional analysis on alternative growth scenarios has been completed by the authors using World Bank data[2]. The SADC's agricultural GDP growth rate must increase by at least 0.25% per year if the 6% target of the CAADP is to be achieved by 2015 (Figure 37). If the 7% RISDP target is to be achieved by 2015, SADC's total GDP growth rate must increase by at least 0.38% per year. Recent performance suggests that both of these trajectories are within reach for most countries in the region. However, if poverty and hunger are to be reduced significantly, faster growth is required.

If post-2003 increases in total GDP growth rate were projected forward, the region would have surpassed the target of the RISDP by 2009 (Figure 37a). The growth in agricultural GDP, on the other hand, dropped in 2005-06 but picked up in 2005-06 to a relatively substantial rate (10%) (Figure 37b). The questions are how best to sustain such growth, and how to ensure that a majority of countries participate.

[2] Unfortunately, a country-by-country analysis of alternative trajectories to the targets is not available.

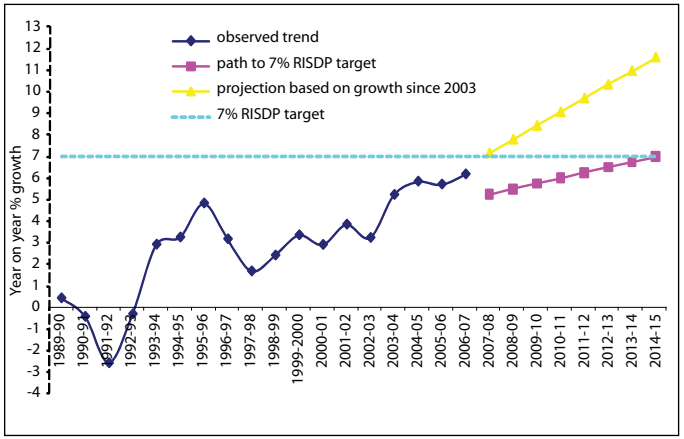


**FIGURE 37(A)**. ALTERNATIVE GROWTH SCENARIOS FOR THE 7% RISDP TARGET*

Data source: World Bank (2008) and authors' computations

Note: *The SADC's Regional Indicative Strategic Development Plan (RISDP) for food security and poverty eradication - the countries are pursuing economic growth of at least 7% per annum by 2008 and to maintain the same levels thereafter.

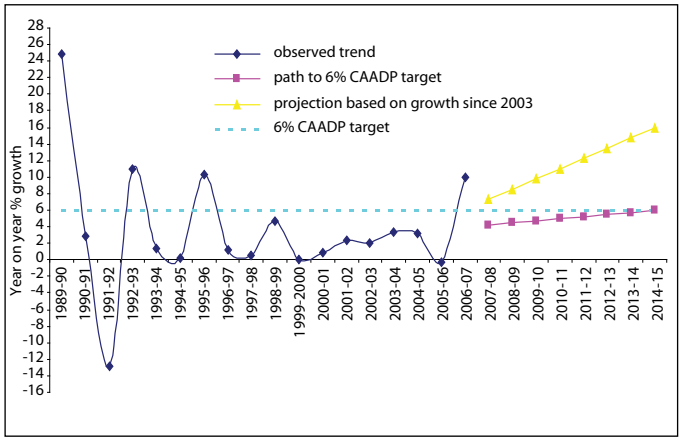


**FIGURE 37 (B)**. ALTERNATIVE GROWTH SCENARIOS FOR THE 6% CAADP TARGET*

Data source: World Bank (2008) and authors' computations

Note: *the New Partnership for Africa's Development (NEPAD)'s Comprehensive Africa Agricultural Development Programme (CAADP) for accelerated agricultural growth, target to achieve at least 6% annual agricultural growth rate by 2015.

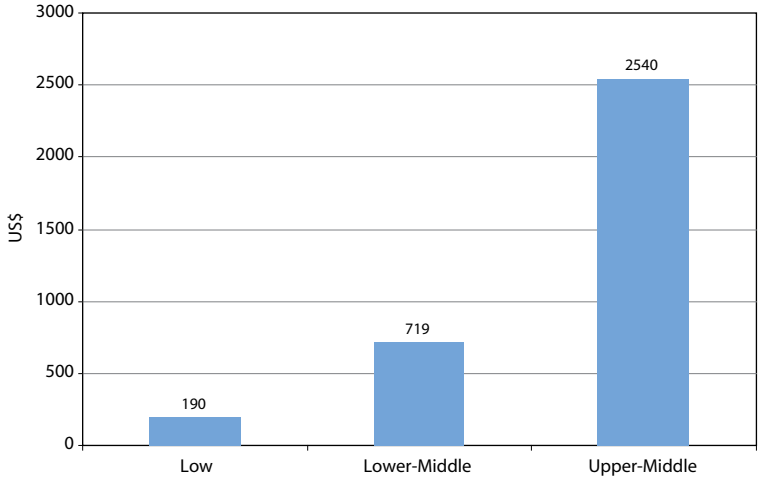


**FIGURE 38**. AGRICULTURAL VALUE ADDED PER WORKER ACROSS COUNTRY INCOME CLASSES
Data source: World Bank (2008)

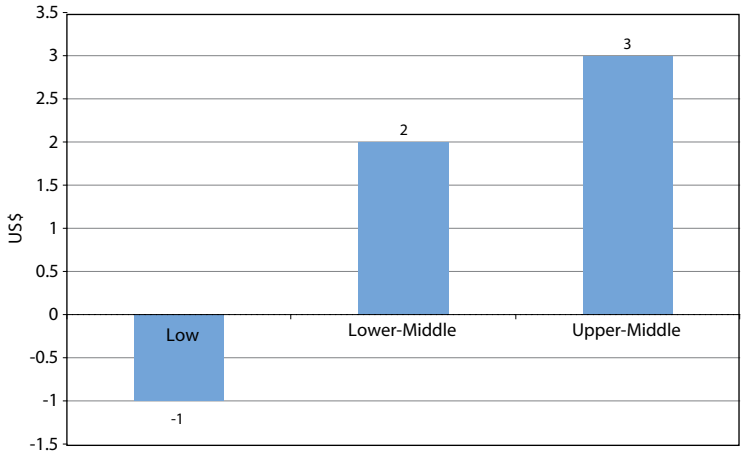


**FIGURE 39**. GROWTH IN AGRICULTURAL VALUE ADDED PER WORKER ACROSS COUNTRY INCOME CLASSES
Data source: World Bank (2008)

## *4.2 Exploiting Regional Growth Linkages and Market Opportunities*

Southern Africa is the only region in Africa where there are a number of middle- and low-income countries in close proximity to each other. Based on the World Bank's classification of countries, DRC, Madagascar, Malawi, Mozambique, Tanzania, Zambia and Zimbabwe are the SADC's low-income countries (GNI averaging US$661 between 2001 and 2006); Angola, Namibia, Swaziland and Lesotho are lower-middle income countries (average GNI of US$3,126); and Botswana, Mauritius and South Africa are upper-middle income countries (average GNI of US$8,728) (World Bank 2008). It is known that levels and growth rates of value added in agriculture increase sharply with income (Figures 38 and 39). South Africa is already the region's engine of growth. Botswana and Mauritius, the two other upper-middle income countries, are small by comparison, but their high average income levels render them extremely important in the region. Among the lower-middle income countries, Namibia and Swaziland loom the largest.

Economic development and agricultural growth among the lower-income southern African countries depend heavily on how they can benefit from the regional dynamics afforded by their more advanced neighboring countries. Recent research under the ReSAKSS-SA project suggests that growth in middle-income countries can help low-income countries overcome their domestic demand constraints, especially for major foods (Nin-Pratt et al. 2007). Specifically, growth in South Africa can have a strong impact on the region's performance, and also on that of individual countries.

The analysis suggests that 4.5% in non-agriculture Total Factor Productivity (TFP) growth in South Africa (equal to its recent performance) coupled with reductions in intra-regional trade barriers could generate additional annual growth in real GDP in the SADC region of 3.3% with 1.03% increase in agricultural GDP. Such growth in South Africa and reductions in trade barriers could have important implications for regional food security. Specifically, it could generate additional annual growth of 1.88% in food consumption in the SADC

region. Again, non-agricultural productivity growth in middle-income countries with agricultural productivity growth in the three low-income countries would add 4.58% to the regional GDP growth rate with a corresponding 2.5% increase in agricultural GDP. This could also add 3.27% to the regional food consumption growth rate (Figure 40).

Hurdles and opportunities for expanded integration in the SADC region are largely institutional. The CAADP and RISDP have opened new political space for creating the requisite institutional platforms and mechanisms for moving the region towards greater harmonization and rationalization of domestic policies affecting agriculture. The region's greatest strength in this respect—its heterogeneity—is, potentially, also its foremost weakness. As in all efforts towards enhanced cross-border economic integration, at issue for policymakers in the SADC must be the creation of processes to gather information about potential and actual impacts in different country contexts, to reach consensus on appropriate joint responses and to compensate losers.

Global climate change is increasing the frequency and intensity of natural hazards, altering settlement patterns, decreasing agricultural yields, and increasing and deepening vulnerability, especially in agricultural communities. Economies in the SADC are not immune to these impacts. As such, these economies will develop and prosper based, to a large extent, on their ability to cope with this new set of risks posed by climate change. Countries must place more emphasis and resources on risk assessments and vulnerability management.

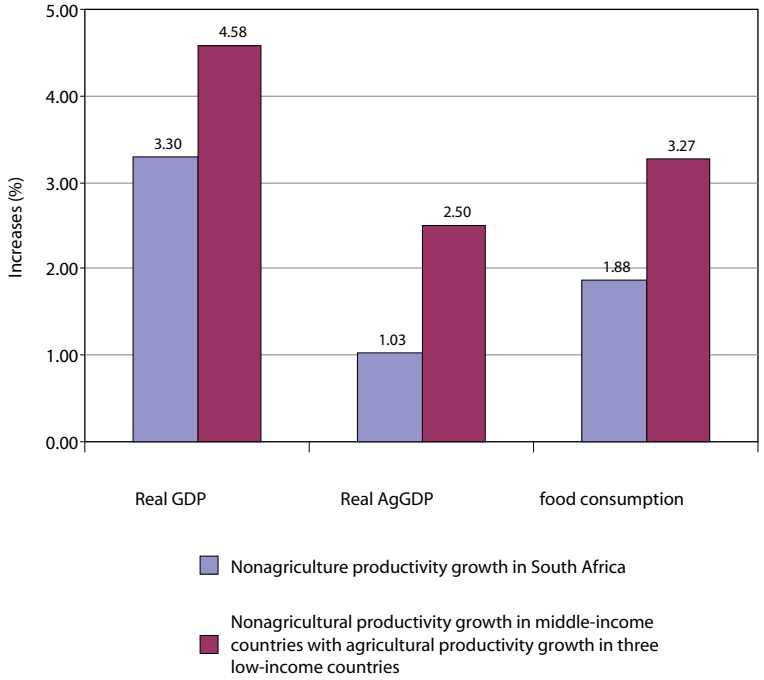


**FIGURE 40**. IMPACT OF GROWTH LINKAGES: INCREASES IN REGION-WIDE GDP, AGRICULTURAL GDP AND FOOD CONSUMPTION GROWTH RATES IN THE SADC FROM EXPANDED MARKET LINKAGES AND FASTER GROWTH IN SOUTH AFRICA AND MIDDLE INCOME COUNTRIES

Source: Nin-Pratt et al. (2007); see also Annex, Table A15

# 5. Conclusion

Southern Africa finds itself in the enviable position of having in place many of the elements for sustained growth and poverty reduction. Its richer economies are expanding strongly and opening up growth opportunities for their neighbors, who are themselves registering speedy growth. High-level political commitment to agricultural development is growing and is being backed by re-allocations of public resources toward agricultural sectors.

However, the majority of the population in the SADC will continue to live in rural areas over the next decade and beyond. Rapid growth in agriculture is, therefore, the centerpiece of sustainable growth. Up to now, such growth has proven elusive. Many of the region's agricultural sectors are struggling under the weight of large rural populations rendered unproductive due to poor incentives and lack of assets. Two new risk-enhancing factors further complicate the challenge of spurring broad-based agricultural growth in the region: rising food prices and global climate change. Countries in the SADC will likely differ in their exposure and response to both of these risk factors. It is clear, however, that governments must begin to place more emphasis on carrying out risk assessments and on setting up programmes to protect their productive assets and reduce the vulnerability of their rural population to these risks. SADC governments, international agencies, donors and NGOs may need to invest much more than they do at present in disaster preparedness and disaster risk reduction.

The SADC is an interdependent region. A reduction in intra-regional barriers to trade would assist in the improvement of the region's economic outlook. Growth in South Africa, coupled with reductions in trade barriers, could have important implications for regional food security. Specifically, it could generate additional annual growth in food consumption in the SADC region of 1.88%. Similar levels of growth in the SADC's other five middle-income countries would also improve regional food security. Moving from the basis that the agricultural sector has great potential to lift the region out of poverty and underdevelopment, perhaps the time has come for policymakers in the region to find ways of protecting the poor from food price increases, while harnessing higher market prices to stimulate greater food production and raise rural incomes over the long run.

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# Annexes

**TABLE A1**. TRENDS IN INDEX OF AGRICULTURAL FOOD PRODUCTION (PIN) PER CAPITA IN SELECTED SADC COUNTRIES (1990(2006).

| Country | Index of agricultural production per capita | | | Average annual growth (%) | |
|---|---|---|---|---|---|
| | 1990 | 2000 | 2006 | 1990-2000 | 2000-2006 |
| Angola | 82.4 | 100.1 | 127.5 | 2.0 | 4.1 |
| Botswana | 135.8 | 99.5 | 96.0 | -3.1 | -0.6 |
| DRC | 159.2 | 100.0 | 79.9 | -4.5 | -3.7 |
| Madagascar | 125.1 | 99.5 | 96.6 | -2.3 | -0.5 |
| Malawi | 73.7 | 103.6 | 78.4 | 3.5 | -4.5 |
| Mauritius | 111.7 | 101.2 | 101.1 | -1.0 | 0.0 |
| Mozambique | 102.5 | 94.9 | 124.4 | -0.8 | 4.6 |
| Namibia | 107.8 | 108.9 | 85.9 | 0.1 | -3.9 |
| South Africa | 111.1 | 104.5 | 99.6 | -0.6 | -0.8 |
| Swaziland | 127.5 | 103.1 | 92.1 | -2.1 | -1.9 |
| Tanzania | 117.5 | 99.4 | 94.4 | -1.7 | -0.9 |
| Zambia | 112.1 | 99.0 | 98.2 | -1.2 | -0.1 |
| Zimbabwe | 97.5 | 106.6 | 70.2 | 0.9 | -6.7 |

Data source: FAO (2008c)

**TABLE A2(A)**. TRENDS IN GDP IN THE SADC REGION (1990(2007).

| Country | GDP (constant 2000 US$ billion) | | | | Contributions (%) to the region's GDP | | | Average annual growth (%) rate in GDP | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2005 | 2007 | 1990 | 2000 | 2007 | 1990-2000 | 2000-2003 | 2003-2007 | 2006-2007 |
| Angola | 8.5 | 9.1 | 14.9 | 21.9 | 5.3 | 4.8 | 7.4 | 0.8 | 6.5 | 18.4 | 23.4 |
| Botswana | 3.4 | 6.2 | 8.2 | 8.7 | 2.1 | 3.2 | 0.7 | 6.2 | 3.1 | 4.6 | 3.8 |
| DRC | 7.7 | 4.3 | 5.2 | 5.9 | 4.8 | 2.2 | 12.2 | -5.6 | 2.5 | 6.2 | 6.5 |
| Lesotho | .6 | 0.9 | 1.0 | 1.1 | 0.4 | 0.4 | 0.5 | 3.6 | 1.6 | 4.8 | 4.9 |
| Madagascar | 3.3 | 3.9 | 4.3 | 4.8 | 2.0 | 2.0 | 6.3 | 1.7 | 1.6 | 5.3 | 6.5 |
| Malawi | 1.2 | 1.7 | 2.0 | 2.1 | 0.8 | 0.9 | 3.4 | 3.4 | 2.2 | 5.8 | 7.4 |
| Mauritius | 2.7 | 4.5 | 5.2 | 5.9 | 1.7 | 2.3 | 1.4 | 5.3 | 2.4 | 4.4 | 4.7 |
| Mozambique | 2.3 | 3.8 | 5.8 | 7.4 | 1.4 | 2.0 | 8.1 | 5.2 | 5.0 | 7.8 | 7 |
| Namibia | 2.3 | 3.4 | 4.2 | 4.7 | 1.4 | 1.8 | 1.9 | 4.2 | 2.7 | 5 | 5.9 |
| South Africa | 110.9 | 132.9 | 159.7 | 176.9 | 69.2 | 69.3 | 20.5 | 1.8 | 2.4 | 4.9 | 4.8 |
| Swaziland | 1.0 | 1.4 | 1.5 | 1.5 | 0.6 | 0.7 | 0.8 | 3.1 | 1.4 | 2.5 | 2.4 |
| Tanzania | 6.8 | 9.1 | 12.6 | 14.3 | 4.2 | 4.7 | 32.8 | 2.9 | 3.8 | 7 | 7.1 |
| Zambia | 3.0 | 3.2 | 4.1 | 4.6 | 1.9 | 1.7 | 3.9 | 0.7 | 3.0 | 5.7 | 6 |
| Zimbabwe | 6.7 | 7.4 | 5.5 | - | 4.2 | 3.9 | 3.4 | 0.9 | -3.2 | -4.8 | -5.4 |
| SADC | 160.4 | 191.8 | 234.2 | 259.8 | 100.0 | 99.9 | 103.3 | 1.8 | 2.6 | 5.7 | 6.2 |
| *SSA* | *273.4* | *341.7* | *425.5* | *449.3* | - | - | | *2.3* | *2.8* | *5.6* | *5.6* |

Data source: World Bank (2008)

**TABLE A2(B)**. COUNTRIES' CONTRIBUTIONS (%) TO THE REGION'S GDP.

| Country | 1990 | 2000 | 2003 | 2005 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Angola | 5.2 | 4.7 | 5.2 | 6.3 | 8.1 | 8.9 |
| Botswana | 2.1 | 3.2 | 3.4 | 3.4 | 3.3 | 3.1 |
| DRC | 4.7 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 |
| Lesotho | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Madagascar | 2.0 | 2.0 | 1.8 | 1.8 | 1.8 | 1.9 |
| Malawi | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 | 0.9 |
| Mauritius | 1.7 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 |
| Mozambique | 1.5 | 2.2 | 2.6 | 2.7 | 2.8 | 2.9 |
| Namibia | 1.6 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 |
| Seychelles | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| South Africa | 68.8 | 68.7 | 68.5 | 67.7 | 67.9 | 66.9 |
| Swaziland | 0.6 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 |
| Tanzania | 4.2 | 4.7 | 5.1 | 5.3 | 5.5 | 5.6 |
| Zambia | 1.9 | 1.7 | 1.7 | 1.7 | 1.8 | 1.8 |
| Zimbabwe | 4.2 | 3.8 | 2.9 | 2.4 | 0.0 | 0.0 |

Data source: World Bank (2008)

**TABLE A3**. TRENDS IN AGRICULTURAL GDP IN SOUTHERN AFRICA (1990(2007).

| Country | Agricultural GDP (constant 2000 US$ million) | | | Agriculture value added (% of GDP) | | | Contribution to SADC agricultural GDP | | | Average annual growth in agricultural GDP (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2007 | 1990 | 2000 | 2007 | 1990 | 2000 | 2007 | 1990-2000 | 2000-2003 | 2003-2007 | 2006-2007 |
| Angola | 685.9 | 517.1 | 1,389.6 | 8.1 | 5.7 | 6.4 | 8.1 | 3.3 | 7.2 | 0.8 | 6.9 | 18.4 | 23.4 |
| Botswana | 154.7 | 139.2 | 132.0 | 4.6 | 2.3 | 1.5 | 4.6 | 0.9 | 0.7 | 6.2 | 5.6 | 4.6 | 3.8 |
| DRC | 2,011.1 | 2,125.7 | 2,270.4 | 26.3 | 49.4 | 38.7 | 26.3 | 13.5 | 11.7 | -5.6 | 2.3 | 6.2 | 6.5 |
| Lesotho | 121.7 | 138.5 | 89.2 | 20.2 | 16.2 | 8.1 | 20.2 | 0.9 | 0.5 | 3.5 | 2.4 | 4.8 | 4.9 |
| Madagascar | 859.8 | 1,026.3 | 1,185.9 | 26.3 | 26.5 | 24.5 | 26.3 | 6.5 | 6.1 | 1.7 | 0.5 | 5.3 | 6.5 |
| Malawi | 301.6 | 621.7 | 633.7 | 24.3 | 35.7 | 30.1 | 24.3 | 4 | 3.3 | 3.4 | -1.2 | 5.8 | 7.4 |
| Mauritius | 273.8 | 230.3 | 264.2 | 10.2 | 5.2 | 4.5 | 10.2 | 1.5 | 1.4 | 5.3 | 3.8 | 4.4 | 4.7 |
| Mozambique | 698.5 | 887.2 | 1,513.8 | 26.7 | 20.9 | 20.4 | 26.7 | 5.6 | 7.8 | 5 | 8.9 | 7.8 | 7 |
| Namibia | 222.6 | 337.6 | 354.0 | 9.8 | 9.9 | 7.5 | 9.8 | 2.1 | 1.8 | 4.2 | 4.2 | 5 | 5.9 |
| South Africa (SA) | 3,691.6 | 3,955.6 | 3,834.2 | 3.3 | 3 | 2.2 | 3.3 | 25.2 | 19.8 | 1.8 | 3.2 | 4.9 | 4.8 |
| Swaziland | 143.9 | 149.7 | 155.2 | 13.9 | 10.8 | 10.3 | 13.9 | 1 | 0.8 | 3 | -0.5 | 2.5 | 2.4 |
| Tanzania | 2,766.6 | 3,773.0 | 6,128.8 | 40.7 | 41.6 | 42.8 | 40.7 | 24 | 31.7 | 2.9 | 6.4 | 7 | 7.1 |
| Zambia | 471.4 | 643.6 | 735.3 | 15.6 | 19.9 | 16 | 15.6 | 4.1 | 3.8 | 0.7 | 4.4 | 5.7 | 6 |
| Zimbabwe | 857.9 | 1,173.9 | 653.7 | 12.7 | 15.9 | 12.9 | 12.7 | 7.5 | 3.4 | 0.9 | -5.9 | -4.8 | -5.4 |
| SADC including SA | 13,261.10 | 15,719.40 | 19,340.0 | 8.3 | 8.2 | 7.3 | 8.3 | 100.1 | 100 | 1.8 | 3.3 | 5.7 | 6.2 |
| SADC excluding SA | 9,569.50 | 11,763.80 | 15,505.8 | 19.2 | 19.8 | 17.6 | 19.2 | - | - | - | - | - | - |
| *SSA* | *42,970.60* | *56,653.50* | *72,535.20* | - | - | - | - | - | - | *2.3* | *2.8* | *5.6* | *5.6* |

Data source: World Bank (2008)

**TABLE A4**. TRENDS IN INDEX OF FOOD PRODUCTION AND INDEX OF FOOD PRODUCTION PER CAPITA IN SELECTED SADC COUNTRIES (1990(2006).

| Country | Index of food production | | | Index of food production per capita | | | Average annual growth (%) in food production per capita | |
|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2006 | 1990 | 2000 | 2006 | 1990-2000 | 2000-2006 |
| Angola | 61.2 | 99.6 | 152.5 | 81.1 | 99.8 | 128.6 | 2.1 | 4.3 |
| Botswana | 107.3 | 99.5 | 103.3 | 135.7 | 99.5 | 96.1 | -3.1 | -0.6 |
| DRC | 117.7 | 99.9 | 95.6 | 157.3 | 100.0 | 80.1 | -4.4 | -3.6 |
| Madagascar | 91.6 | 99.7 | 114.7 | 123.1 | 99.7 | 96.9 | -2.1 | -0.5 |
| Malawi | 50.8 | 102.4 | 91.8 | 62.6 | 102.5 | 78.7 | 5.1 | -4.3 |
| Mauritius | 96.4 | 101.2 | 107.0 | 108.3 | 101.3 | 101.5 | -0.7 | 0.0 |
| Mozambique | 78.0 | 95.5 | 144.3 | 104.8 | 95.5 | 125.0 | -0.9 | 4.6 |
| Namibia | 81.9 | 109.2 | 92.9 | 108.6 | 109.2 | 85.4 | 0.1 | -4.0 |
| South Africa | 88.1 | 104.8 | 107.2 | 109.3 | 104.8 | 100.7 | -0.4 | -0.7 |
| Swaziland | 98.2 | 104.0 | 101.0 | 119.9 | 103.9 | 94.1 | -1.4 | -1.6 |
| Tanzania | 88.8 | 99.9 | 107.4 | 118.0 | 100.0 | 92.2 | -1.6 | -1.3 |
| Zambia | 87.7 | 101.0 | 107.0 | 112.8 | 100.8 | 95.6 | -1.1 | -0.9 |
| Zimbabwe | 90.3 | 105.3 | 89.1 | 108.9 | 105.3 | 85.3 | -0.3 | -3.5 |

Data source: FAO (2008c)

**TABLE A5**. TRENDS IN AREA HARVESTED TO ROOTS AND TUBERS IN SADC COUNTRIES (1990(2006).

| Country | Area harvested to roots and tubers ('000 ha) | | | Country share including South Africa (%) | Average annual growth (%) | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2006 | Average (2000-06) | 1990-2000 | 2000- 2003 | 2003-2006 |
| Angola | 427.5 | 607.2 | 1013.0 | 13.4 | 3.6 | 14.9 | 3.2 |
| Botswana | 8.8 | 11.2 | 12.0 | 0.2 | 2.4 | 2.3 | 0.0 |
| DRC | 2457.5 | 2070.6 | 1955.7 | 31.5 | -1.7 | -2.0 | 0.1 |
| Lesotho | 2.9 | 5.4 | 5.9 | 0.1 | 6.4 | 0.0 | 2.9 |
| Madagascar | 491.6 | 522.0 | 582.7 | 8.7 | 0.6 | 1.0 | 2.7 |
| Malawi | 95.8 | 358.6 | 315.2 | 4.8 | 14.1 | -18.9 | 18.2 |
| Mauritius | 1.1 | 0.7 | .6 | 0.0 | -4.4 | -1.2 | -5.2 |
| Mozambique | 959.8 | 942.2 | 1121.6 | 16.5 | -0.2 | 4.1 | 1.8 |
| Namibia | 25.0 | 30.0 | 34.5 | 0.5 | 1.8 | 4.8 | 0.0 |
| South Africa | 77.9 | 69.1 | 71.0 | 1.1 | -1.2 | -2.3 | 3.3 |
| Swaziland | 10.7 | 10.8 | 10.7 | 0.2 | 0.1 | 0.6 | -1.0 |
| Tanzania | 934.5 | 1264.0 | 1234.9 | 19.5 | 3.1 | -1.7 | 1.0 |
| Zambia | 107.8 | 169.6 | 184.6 | 2.8 | 4.6 | 0.0 | 2.8 |
| Zimbabwe | 26.6 | 43.0 | 50.0 | 0.7 | 4.9 | 2.8 | 2.3 |
| SADC | 5627.5 | 6104.4 | 6592.4 | 100.0 | 0.8 | 0.6 | 2.0 |

Data source: FAO (2008c)

**TABLE A6**. TRENDS IN AREA HARVESTED TO CEREALS IN SADC COUNTRIES (1990(2006).

| Country | Area harvested to cereals ('000 ha) | | | Country share including South Africa (%) | Average annual growth (%) | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2005 | Average (2000-06) | 1990-2000 | 2000- 2003 | 2003-2006 |
| Angola | 775.1 | 890.7 | 1,478.0 | 6.2 | 1.4 | 6.4 | 11.3 |
| Botswana | 205.1 | 189.5 | 76.0 | 0.5 | -0.8 | -45.2 | 34.5 |
| DRC | 1,863.6 | 1,998.4 | 1,941.9 | 10.2 | 0.7 | -0.4 | -0.5 |
| Lesotho | 233.5 | 213.1 | 184.0 | 1.0 | -0.9 | -7.3 | 2.8 |
| Madagascar | 1,326.9 | 1,407.4 | 1,509.1 | 7.5 | 0.6 | 0.3 | 2.0 |
| Malawi | 1,425.3 | 1,570.3 | 1,545.2 | 8.1 | 1.0 | 2.8 | -3.2 |
| Mauritius | 0.5 | .07 | 0.06 | 0.0 | -18.6 | -27.2 | 29.0 |
| Mozambique | 1,549.5 | 1,828.4 | 2,029.4 | 10.4 | 1.7 | 4.8 | -1.2 |
| Namibia | 214.2 | 323.7 | 296.9 | 1.5 | 4.2 | -2.8 | 0.0 |
| South Africa | 6,163.0 | 5,284.6 | 3,007.8 | 22.7 | -1.5 | -4.1 | -13.6 |
| Swaziland | 85.7 | 69.8 | 49.3 | 0.3 | -2.0 | -0.4 | -10.6 |
| Tanzania | 2,629.3 | 5,198.1 | 3,449.6 | 19.7 | 7.1 | -17.6 | 5.8 |
| Zambia | 895.2 | 718.1 | 583.6 | 3.3 | -2.2 | 3.4 | -9.8 |
| Zimbabwe | 1,576.1 | 1,797.5 | 1,656.2 | 8.6 | 1.3 | -2.1 | -0.6 |
| SADC | 18,943 | 21,489.67 | 17,807.06 | 100.0 | 1.3 | -4.2 | -1.9 |

Data source: FAO (2008c)

**TABLE A7**. TRENDS IN LIVESTOCK (MEAT) PRODUCTION QUANTITY IN SADC COUNTRIES (1990(2006).

| Country | livestock (meat) production quantity ('000 tonnes) | | | Average annual growth (%) | |
|---|---|---|---|---|---|
| | 1990 | 2000 | 2006 | 1990-2000 | 2000-2006 |
| Angola | 99.5 | 140.7 | 141.4 | 3.5 | 0.1 |
| Botswana | 59.3 | 57.7 | 59.5 | -0.3 | 0.5 |
| DRC | 165.7 | 163.0 | 157.5 | -0.2 | -0.6 |
| Lesotho | 23.9 | 23.0 | 24.8 | -0.2 | 1.0 |
| Madagascar | 252.9 | 291.5 | 309.8 | 1.4 | 1.0 |
| Malawi | 42.2 | 59.2 | 63.9 | 3.4 | 1.3 |
| Mauritius | 16.3 | 25.2 | 39.7 | 4.5 | 7.9 |
| Mozambique | 85.7 | 94.4 | 98.8 | 1.0 | 0.8 |
| Namibia | 61.4 | 84.9 | 61.2 | 3.3 | -5.3 |
| South Africa | 1,496.0 | 1,776.5 | 2,108.7 | 1.7 | 2.9 |
| Swaziland | 15.8 | 29.4 | 20.7 | 6.4 | -5.6 |
| Tanzania | 272.9 | 334.2 | 368.6 | 2.0 | 1.6 |
| Zambia | 95.0 | 124.6 | 132.0 | 2.7 | 1.0 |
| Zimbabwe | 141.4 | 194.8 | 210.3 | 3.3 | 1.3 |
| SADC | 2,828.0 | 3,399.1 | 3,796.9 | 1.9 | 1.9 |

Data Source: FAO (2008c)

**TABLE A8**. RECENT TRENDS IN CONSUMPTION, AND DISTRIBUTION OF, FERTILIZER IN SELECTED SADC COUNTRIES.

| Country | Consumption ('000 tonnes) | | | | Average annual growth (%) |
|---|---|---|---|---|---|
| | 2002 | 2003 | 2004 | 2005 | 2002-2005 |
| Angola | 5,143.0 | 5,903.0 | 14,854.0 | 7,458.0 | 13.2 |
| Madagascar | 6,178.0 | 6,337.0 | 6,444.0 | 15,847.0 | 36.9 |
| Malawi | 48,443.0 | 51,905.0 | 36,934.0 | 91,737.0 | 23.7 |
| Mauritius | 22,058.0 | 29,580.0 | 13,696.0 | 25,747.0 | 5.3 |
| Mozambique | 26,600.0 | 35,397.0 | 24,420.0 | 7,136.0 | -35.5 |
| Namibia | 3,185.0 | 1,150.0 | 2,551.0 | 1,567.0 | -21.1 |
| South Africa | 648,655.0 | 800,572.0 | 838,234.0 | 665,965.0 | 0.9 |
| Tanzania | 30,437.0 | 43,671.0 | 53,416.0 | 95,380.0 | 46.3 |
| Zimbabwe | 130,310.0 | 111,267.0 | 84,608.0 | 109,046.0 | -5.8 |

Data source: FAO (2008c)

**TABLE A9**. TRENDS IN GDP PER CAPITA (CONSTANT 2000 US$).

| Country | GDP per capita (constant 2000 US$) | | | GDP per capita growth (%) | | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2006 | Average 1990-2000 | Average 2000-2003 | Average 2003-2006 | Average 2005-2006 |
| Angola | 803.6 | 659.6 | 1,043.8 | -2.0 | 3.9 | 12.1 | 11.4 |
| Botswana | 2,376.2 | 3,521.8 | 4,770.0 | 4.0 | 5.3 | 5.0 | 4.6 |
| DRC | 202.8 | 86.0 | 92.8 | -8.2 | -0.4 | 2.9 | 1.9 |
| Lesotho | 377.9 | 477.2 | 564.4 | 2.4 | 2.2 | 3.5 | 3.1 |
| Madagascar | 271.1 | 239.4 | 238.5 | -1.2 | -2.3 | 2.2 | 2.2 |
| Malawi | 131.4 | 151.4 | 163.9 | 1.4 | -1.1 | 3.8 | 6.1 |
| Mauritius | 2,534.6 | 3,765.6 | 4,522.3 | 4.0 | 2.8 | 3.4 | 2.7 |
| Mozambique | 169.7 | 210.9 | 306.8 | 2.2 | 7.5 | 5.4 | 6.6 |
| Namibia | 1,618.8 | 1,801.9 | 2,172.2 | 1.1 | 2.5 | 3.8 | 3.6 |
| South Africa | 3,151.8 | 3,019.9 | 3,562.1 | -0.4 | 1.7 | 3.9 | 3.9 |
| Swaziland | 1,329.6 | 1,328.9 | 1,415.5 | 0.0 | 0.6 | 1.5 | 2.5 |
| Tanzania | 266.8 | 268.2 | 334.6 | 0.1 | 3.7 | 3.8 | 3.3 |
| Zambia | 361.4 | 302.5 | 365.5 | -1.8 | 2.6 | 3.8 | 4.3 |
| Zimbabwe | 637.4 | 587.5 | 408.7 | -0.8 | -6.6 | -5.2 | -5.4 |
| SADC Average including South Africa | 1,016.7 | 1,172.9 | 1,425.8 | 1.4 | 2.6 | 4.0 | 3.8 |
| SADC Average excluding South Africa | 852.4 | 1,030.8 | 1,261.5 | 1.9 | 2.8 | 4.0 | 3.8 |
| *SSA* | *528.4* | *510.9* | *583.4* | -0.3 | 1.3 | 3.2 | 3.2 |

Data source: World Bank (2008)

**TABLE A10**. LEVELS AND CHANGES IN POVERTY IN SELECTED SOUTHERN AFRICA COUNTRIES.

| Country | National poverty line | | | | International poverty line[W] | | | |
|---|---|---|---|---|---|---|---|---|
| | Survey year | Rural (%) | Urban (%) | National (%) | Survey year | Population living below US$1 a day (%) | Poverty gap at US$1 a day (%) | Population below US$2 a day (%) | Poverty gap at US$2 a day (%) |
| Angola[A] | 2001 | 94.3 | 57.2 | 62.2 | | | | | |
| Madagascar | 1997 | 76.0 | 63.2 | 73.3 | 1997 | - | - | - | - |
| | 1999 | 76.7 | 52.1 | 71.3 | 1999 | - | - | - | - |
| | 2001[a] | - | - | - | 2001[a] | 61.0 | 27.9 | 85.1 | 51.8 |
| Malawi[M] | 1990-92 | - | - | 54.0 | 1990-91 | - | - | - | - |
| | 1998-00 | 66.5 | 54.9 | 54.1 | 1997-98 | - | - | - | - |
| | 2004-05[a] | - | - | 52.4 | 2004-05[a] | 20.8 | 4.7 | 62.9 | 24.3 |
| Mozambique[q] | 1996-97 | 71.0 | 61.7 | 69.1 | 1996-97 | - | - | - | - |
| | 2002-03[a] | 55.2 | 51.6 | 54.1 | 2002-03[a] | 36.2 | 11.6 | 74.1 | 34.9 |
| South Africa | 1993 | | - | 50.1 | 2000[a] | 10.7 | 1.7 | 34.1 | 12.6 |
| | 1995 | - | - | 51.7 | | | | | |
| | 2000 | - | - | 50.8 | | | | | |
| | 2004 | - | - | 46.9 | | | | | |
| Swaziland | 2000-01[a] | - | - | - | 2000-01[a] | 47.7 | 19.4 | 77.8 | 42.4 |
| Tanzania | 1991 | 40.8 | 31.2 | 38.6 | 1991 | - | - | - | - |
| | 2000-01 | 38.7 | 29.5 | 35.7 | 2000-01 | - | - | - | - |
| | 2000-01[a] | - | - | - | 2000-01[a] | 57.8 | 20.7 | 89.9 | 49.3 |
| Zambia[Z] | 1991 | 88.0 | 49.0 | 70.0 | | | | | |
| | 1993 | 92.0 | 45.0 | 74.0 | | | | | |
| | 1996 | 82.0 | 46.0 | 69.0 | 1998 | - | - | - | - |
| | 1998 | 83.0 | 56.0 | 73.0 | 2004 | - | - | - | - |
| | 2004[a] | 78.0 | 53.0 | 68.0 | 2004[a] | 63.8 | 32.6 | 45.2 | 15.0 |
| *Zimbabwe* | *1990-91* | *35.8* | *3.4* | *25.8* | *1990-91* | - | - | - | - |
| | *1995-96* | *48.0* | *7.9* | *34.9* | *1995-96* | - | - | - | - |
| | 1995-96a | - | - | - | 1995-96a | 56.1 | 24.2 | 83.0 | 48.2 |

Sources: [Z]Central Statistical Office Zambia (2008); [M]Chirwa et al. (2008); [q]Tvedten et al. (2006); [A]Government of Angola (2006); [W]World Bank (2008)
Notes: [a]income base

**TABLE A11**. AGRICULTURE EXPENDITURE AS A PERCENTAGE OF THE NATIONAL BUDGET IN SELECTED SADC COUNTRIES (2002(2007).

| Country | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|
| Angola | N/A | 2.24 | 6.47 | 5.29 | 3.55 | na |
| Botswana | 5 | 2.8 | 2.7 | 3.2 | 3.3 | 3 |
| DRC | 1 | 0.8 | 0.7 | 1.5 | 1.8 | 1 |
| Lesotho | 6 | 4.8 | 5.0 | 4.0 | 3.5 | 3 |
| Madagascar | N/A | 8.0 | 7.9 | 8.0 | 4.2 | N/A |
| Malawi | N/A | 6.6 | 12.71 | 11 | 13.2 | N/A |
| Mauritius | 2.71 | 3.96 | 2.91 | 2.56 | N/A | N/A |
| Mozambique | 3.15 | 6.2 | 4.4 | 3.4 | 3.9 | |
| Namibia | 4 | 7.3 | 6.9 | 8.2 | 8.0 | 4 |
| South Africa | N/A | N/A | N/A | N/A | N/A | N/A |
| Swaziland | 5.49 | 4.97 | 6 | 4.7 | 3.71 | N/A |
| Tanzania | 3.32 | 5.7 | 4.71 | 5.78 | 5.78 | N/A |
| Zambia | N/A | 7.0 | 4.0 | 5.0 | 4.0 | N/A |
| Zimbabwe | 9.4 | 11.9 | 6.2 | N/A | N/A | N/A |

Sources: SADC (2008) - data in black; Mpyisi (2007) - data in green; Mwape (2008) - data in blue; UNECA (2007) - data in red
Note: N/A - not available

**TABLE A12**. CATEGORIZATION OF SUBPROGRAMMES INTO PROGRAMMES IN MALAWI.

| Administration and support services | Agricultural extension services | Nutrition and food security services | Land and water management services | Research and technology services |
|---|---|---|---|---|
| Minister's office | Enforcement services | Safety nets | Land resource survey | Pesticide management |
| Management and support | Crop management | Food and nutrition | Land resource management | Soil survey research station |
| Human resource management | Livestock management | Food Security | Soil and water conservation | Adaptive research |
| Financial management and internal audit | Extension management | Food nutrition | Irrigation development | Technology generation |
| Internal audit | Extension methodology | | Irrigation management | Technology management |
| Planning and evaluation | Agriculture communication branch | | Irrigation technologies development | Research regulatory services |
| HIV/AIDS intervention | Agri-business development | | | Agro-Processing |
| Technical coordination and investment | Agriculture gender roles and support | | | Research management |
| Pro-poor expenditure | Animal health regulatory | | | Land research conservation |
| Planning and policy review | Field crops | | | |
| Staff development | Horticultural crops | | | |
| Agriculture headquarters | Diagnostic and investigation services | | | |
| Natural resources college | One Village One Product (OVOP) | | | |
| Planning management | Research extension and farmer linkage | | | |
| Programme Development | Crop production | | | |
| Monitoring and evaluation | Crop development | | | |
| Agriculture, trade and marketing | Animal production | | | |
| Information technology | Farm mechanization | | | |
| Statistical services | Veterinary services | | | |
| Auditing services | Animal production | | | |
| Personnel division | Extension services | | | |
| Planning division | Smallholder coffee authority | | | |
| Finance division | Grain, legumes, fibers and oilseed | | | |
| Planning services | Plant protection | | | |
| Technical services | Cereals | | | |
| Nature programme | Livestock and pastures | | | |

Data source: Prepared from various budget documents of Government of Malawi (GoM 1998a, 1998b, 1998c, 1998d, 2000, 2001, 2002, 2003, 2004a, 2004b, 2007a, 2007b, 2007c).

**TABLE A13**. DISTRIBUTION AND TRENDS IN RECURRENT AND DEVELOPMENT EXPENDITURE IN AGRICULTURE BY FUNCTION IN MALAWI (1999/00(2006/07).

| | Malawian Kwacha (millions) | | | Growth rates (%) | |
|---|---|---|---|---|---|
| | 1999/00 | 2003/04 | 2006/07 | 1999/00 – 2003/04 | 2003/04 – 2006/07 |
| Livestock/crops | 1,056.0 | 2,070.6 | 21,044.5 | 18.3 | 218.8 |
| - Recurrent | 481.9 | 1,481.9 | 15,229.6 | 32.4 | 87.2 |
| - Development | 574.1 | 588.7 | 5,814.7 | 0.6 | 218.9 |
| Fisheries | 87.3 | 216.1 | 415.6 | 25.4 | 38.7 |
| - Recurrent | 32.9 | 61.9 | 142.2 | 17.2 | 19.2 |
| - Development | 54.4 | 154.1 | 273.4 | 29.7 | 14.0 |
| Forestry | 223.7 | 522.5 | 562.6 | 23.6 | 3.8 |
| - Recurrent | 182.7 | 380.6 | 525.6 | 20.1 | 9.2 |
| - Development | 41.0 | 141.9 | 37.0 | 7.2 | -79.0 |
| Total | 1,367.0 | 2,809.2 | 22,022.7 | 19.7 | 180.0 |
| - Recurrent | 697.5 | 1,924.5 | 15,897.4 | 28.9 | 80.4 |
| - Development | 669.5 | 884.7 | 6,125.3 | 7.2 | 94.2 |

Data source: Computed from various budget documents of Government of Malawi (GoM 1998a, 1998b, 1998c, 1998d, 2000, 2001, 2002, 2003, 2004a, 2004b; 2007a, 2007b, 2007c).

**TABLE A14**. RECURRENT AND DEVELOPMENT EXPENDITURE FOR AGRICULTURE BY SOURCE IN MALAWI (MALAWI KWACHA MILLIONS).

| | 99/00 | 00/01 | 01/02 | 02/03 | 03/04 | 04/05 | 05/06 | 06/07 |
|---|---|---|---|---|---|---|---|---|
| Development budget (government) | | | | | | | | |
| Agriculture | 95 | | 17 | 87 | 42 | 328 | 266 | 1,010 |
| Forestry | 3 | 1 | 3 | | 41 | 40 | 50 | 37 |
| Fisheries | 9 | 2 | 2 | 49 | 20 | 35 | 4 | 16 |
| **Subtotal** | 107 | 3 | 22 | 136 | 103 | 403 | 320 | 1,063 |
| Development budget (donor) | | | | | | | | |
| Agriculture | 479 | 360 | 159 | 687 | 547 | 244 | 2,089 | 4,805 |
| Forestry | 38 | 100 | 50 | 1 | 101 | 802 | | |
| Fisheries | 46 | 69 | 114 | 84 | 134 | 175 | 178 | 257 |
| **Subtotal** | 563 | 529 | 323 | 772 | 782 | 1,221 | 2,267 | 5,062 |
| **Total development budget** | 670 | 532 | 345 | 908 | 885 | 1,624 | 2,587 | 6,125 |
| Recurrent expenditure | | | | | | | | |
| Agriculture | 482 | 568 | 937 | 1,679 | 1,482 | 4,345 | 15,247 | 15,230 |
| Forestry | 183 | 227 | 273 | 336 | 381 | 441 | 557 | 526 |
| Fisheries | 33 | 45 | 50 | 106 | 62 | 100 | 119 | 142 |
| **Total** | 698 | 840 | 1,260 | 2,121 | 1,925 | 4,886 | 15,923 | 15,898 |
| Total development budget (real) | 1,278 | 778 | 403 | 908 | 810 | 1,322 | 1,824 | 3,782 |
| Total recurrent expenditure (real) | 1,331 | 1,228 | 1,469 | 2,121 | 1,762 | 3,976 | 11,230 | 9,815 |
| Deflators | 544.8 | 711.2 | 891.7 | 1,039.80 | 1,135.9 | 1,277.9 | 1,474.4 | 1,684.1 |

Data source: Computed from various budget documents of Government of Malawi (GoM 1998a, 1998b, 1998c, 1998d, 2000, 2001, 2002, 2003, 2004a, 2004b, 2007a, 2007b, 2007c).

**TABLE A15**. AGRICULTURAL GROWTH LINKAGES AND MARKET OPPORTUNITIES IN SOUTHERN AFRICA.

| Group/scenario | Real GDP | Real Agricultural GDP | Agricultural trade | | Food price index | Food consumption |
|---|---|---|---|---|---|---|
| | | | Exports | Imports | | |
| | Additional yearly growth rate (%) | | | | | |
| Scenario 1 | | | | | | |
| Region | 3.30 | 1.03 | –0.02 | 1.11 | 0.45 | 1.88 |
| Malawi | 0.65 | 0.88 | 0.45 | 0.33 | 0.34 | 1.00 |
| Mozambique | 0.70 | 0.67 | –0.48 | 0.70 | 0.41 | 0.87 |
| Zambia | 0.90 | 1.23 | 1.19 | 0.64 | 0.28 | 1.21 |
| Scenario 2 | | | | | | |
| Region | 0.02 | 0.29 | 0.00 | –0.05 | –0.04 | 0.29 |
| Malawi | 0.48 | 2.44 | –0.19 | –2.71 | –1.33 | 2.59 |
| Mozambique | 0.34 | 1.80 | 1.09 | –0.79 | –0.76 | 1.58 |
| Zambia | 0.24 | 1.68 | 0.98 | –1.90 | –0.91 | 2.03 |
| Scenario 3 | | | | | | |
| Region | 0.01 | 0.09 | 0.05 | 0.01 | 0.00 | 0.04 |
| Malawi | 0.19 | 0.78 | 0.09 | –0.36 | –0.09 | 0.28 |
| Mozambique | 0.17 | 0.54 | 2.67 | 0.15 | 0.02 | 0.25 |
| Zambia | 0.18 | 0.65 | 2.29 | –0.67 | –0.07 | 0.28 |
| Scenario 4 | | | | | | |
| Region | 4.58 | 2.50 | 0.10 | 2.02 | 0.57 | 3.27 |
| Malawi | 1.16 | 3.42 | 0.21 | –2.85 | –0.99 | 3.63 |
| Mozambique | 1.06 | 2.51 | 0.51 | –0.23 | –0.34 | 2.46 |
| Zambia | 1.20 | 2.96 | 1.90 | –1.43 | –0.62 | 3.32 |
| Scenario 5 | | | | | | |
| Region | 4.57 | 2.30 | 0.14 | 2.07 | 0.60 | 3.02 |
| Malawi | 0.88 | 1.78 | 0.48 | –0.54 | 0.26 | 1.31 |
| Mozambique | 0.89 | 1.26 | 2.10 | 0.70 | 0.45 | 1.12 |
| Zambia | 1.14 | 1.93 | 3.24 | –0.21 | 0.23 | 1.56 |

Source: Nin-Pratt et al. (2007). Note: [a]Scenario 1: 4.5% non-agriculture Total Factor Productivity (TFP) growth in South Africa; Scenario 2: 4.5% cereal and livestock TFP growth in Malawi, Mozambique and Zambia; Scenario 3: 4.5% non-traditional crops TFP growth in Malawi, Mozambique and Zambia; Scenario 4: non-agriculture TFP growth of 4.5% in South Africa, 7% in Botswana, 6% in the rest of Southern Africa Customs Union (SACU), 7% in the rest of SADC (Angola); 4.5% cereal and livestock TFP growth in Malawi, Mozambique and Zambia; Scenario 5: Non-agriculture TFP growth of 4.5% in South Africa, 7% in Botswana, 6% in the rest of SACU, 7% in the rest of the SADC (Angola); 4.5% non-traditional crops TFP growth in Malawi, Mozambique and Zambia.

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