

# Trends in Agricultural Growth and Performance in Southern Africa

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This brief provides a synthesis of recent trends in agricultural growth and performance in the Southern African Development Community (SADC) region between 1990 and 2007. Agriculture dominates livelihoods and provides employment for millions of southern Africans. Agricultural growth has a major impact on achieving key targets for growth and poverty reduction in the region. The region's progress toward key growth and development targets is therefore assessed.

## TARGETS

The United Nations' Millennium Development Goals (MDGs) have established widely accepted targets for growth and poverty reduction around the world. At issue is the extent to which SADC countries are making progress toward meeting the first MDG (MDG1) target of halving the proportion of people living on less than a dollar a day, and halving the proportion of people who suffer from hunger.

The Comprehensive Africa Agriculture Development Program (CAADP) is a framework endorsed by the African Union Assembly to rationalize and revitalize African agriculture for economic growth and poverty reduction. CAADP has set a target for African countries of an annual growth target of 6 percent per annum if they are to achieve the MDG1.

SADC's Regional Indicative Strategic Development Plan (RISDP) prioritizes sustainable and equitable economic growth and socio-economic development with the aim of

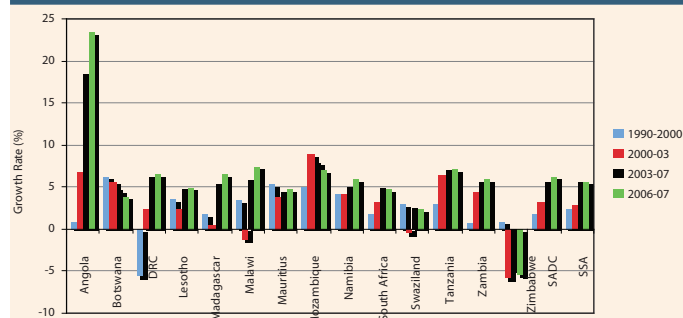
poverty eradication, identifying a number of key targets. The RISDP targets for food security, include: achieving an annual GDP growth of at least 7 percent; halving the proportion of people who suffer from hunger by 2015; increasing fertilizer consumption from 44.6 kilograms per hectare (kg/ha) of arable 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 percent annually.

To set up a consideration of progress toward these targets, recent trends in performance of agricultural sector are summarized. Total GDP, agricultural GDP (AgGDP), and several indicators of agricultural productivity are analyzed. The region's progress toward the MDG1, CAADP, and RISDP targets is then assessed.

## GDP

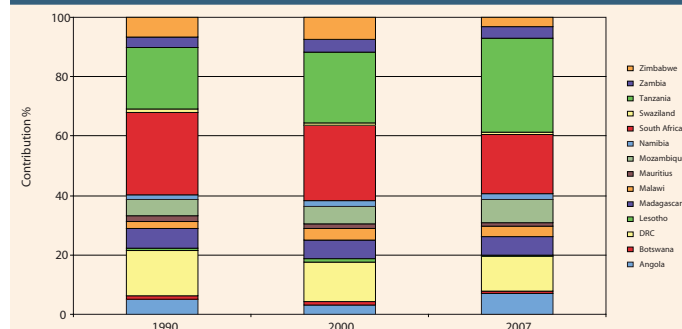
GDP growth in the SADC region as whole has been impressive since 2003, averaging well over 5 percent per year, slightly higher than the continent-wide level (Figure 1). Eight countries registered growth rates of 5 percent or higher in 2006-07, with Angola, Malawi, Mozambique and Tanzania performing especially well. Relatively poor performers by regional standards included Zimbabwe and Swaziland. Shares of regional GDP have been relatively stable since 1990, with only strife-torn Zimbabwe and DRC showing discernible reductions, and Angola registering an important increase during its crucial post-conflict phase (Figure 2).

**Figure 1—Trends in Annual GDP Growth Rates of SADC Countries - 1990-2007**



Source: World Bank (2008a)

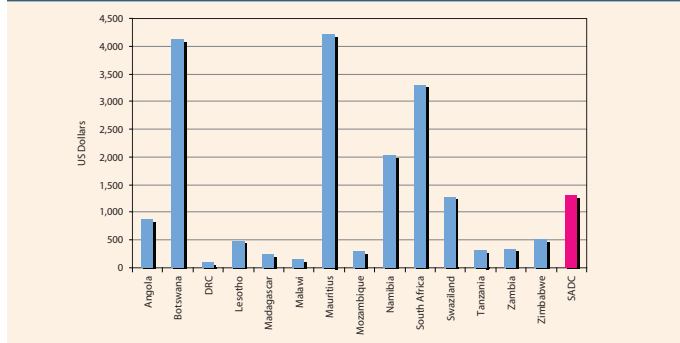
**Figure 2—Country Contributions to SADC Agricultural GDP - 1990-2007**



Source: World Bank (2008a)

Almost 63 percent of SADC's population resided in rural areas in 2006 (FAOSTAT, 2008). The region's agricultural performance was therefore decisive in the levels and trajectories of incomes of at least 150 million people. The region-wide average per capita GDP between 2000 and 2007 was approximately \$1,300 (Figure 3). However, a large majority of countries averaged \$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.

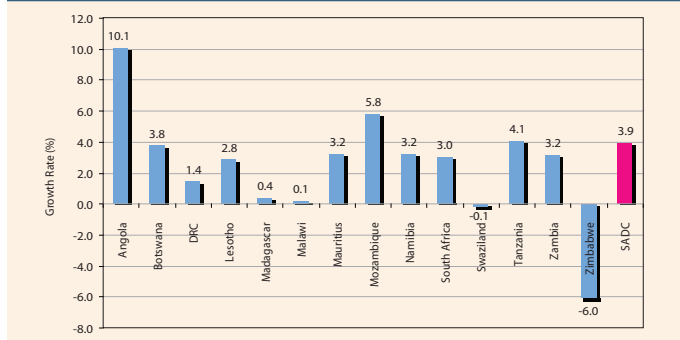
**Figure 3—Average per capita GDP in SADC Countries – 2006-07**



Source: World Bank (2008a)

The picture for recent per capita GDP growth rates is more mixed (Figure 4). As noted earlier, overall GDP growth was strong in the SADC region between 2000 and 2007, resulting in fairly robust growth of 3.9 percent in per capita GDP for the region as a whole over this period. At the country level, with the exception of Malawi, whose rural population in 2006 stood at 82 percent, strong growth in aggregate GDP translated into relatively high growth in per capita GDP. The large share of agriculture in Madagascar's economy combined with

**Figure 4—Average Annual Per Capita GDP Growth Rates in SADC Countries - 2000-07**



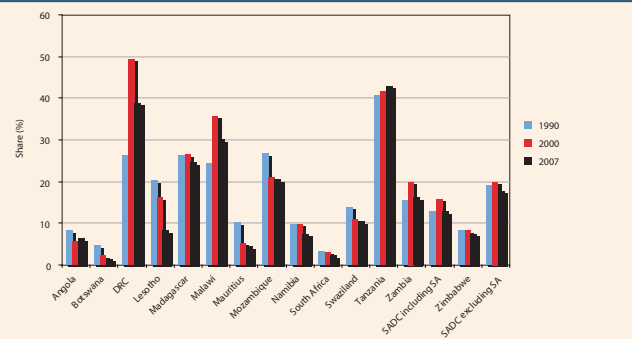
Source: World Bank (2008a)

its relatively high overall population growth rate (2.8 percent between 2000 and 2006) resulted in negative growth in per capita GDP. The high negative rate for Zimbabwe was a direct result of the political and economic crisis facing the country.

## AGRICULTURAL GDP

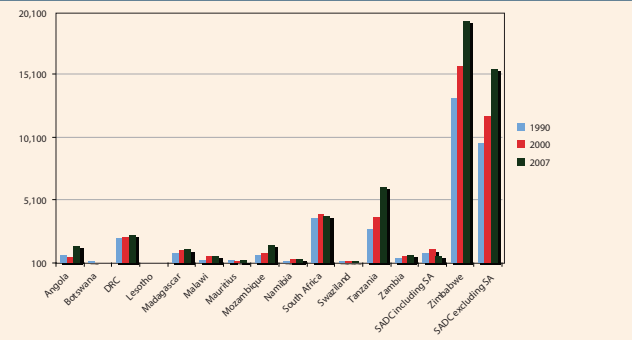
In only five SADC countries (DRC, Madagascar, Malawi, Mozambique, and Tanzania) does agriculture account for more than 20 percent of GDP (Figure 5). The average share for the region is 7.3 percent including South Africa, and 18.2 percent excluding South Africa. These levels are relatively low for Africa. The five SADC countries in which agriculture accounts for more than 20 percent of GDP together produce 58 percent of the region's agricultural value added. Tanzania has the region's largest agricultural economy, 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 large as the next two largest agricultural economies in the region (DRC and Angola).

**Figure 5—Trends in Agriculture Share of GDP in SADC Countries - 1990-2007**



Source: World Bank (2008a)

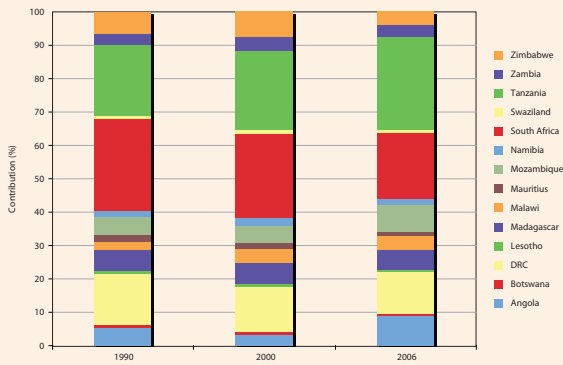
**Figure 6—Trends in Agricultural GDP in SADC Countries - 1990-2007**



Source: World Bank (2008a)

<sup>1</sup>By comparison, in Eastern Africa, the regional average share is 42 percent and all countries except Eritrea and Kenya have shares well above 30 percent (World Bank, 2008).

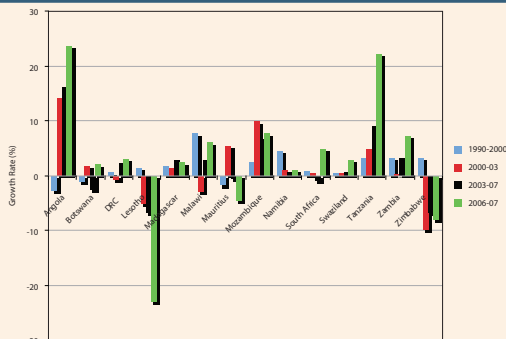
**Figure 7—Trends in Country Contributions to SADC Agricultural GDP - 1990-2007**



Source: World Bank (2008a)

With three striking exceptions that pull up the regional average (Angola, Malawi, and Mozambique), SADC's agricultural sectors have performed poorly in recent years (Figure 8). Agriculture in Lesotho, Mauritius and Zimbabwe registered negative growth between 2006 and 2007. Botswana and South Africa also registered negative growth prior to 2006 but reversed the trend in 2006-07, albeit only to relatively low levels. AgGDP growth in Namibia has been somewhat flat since 2003.

**Figure 8—Trends in Annual Agricultural Growth Rates in SADC Countries - 1990-2007**



Source: World Bank (2008a)

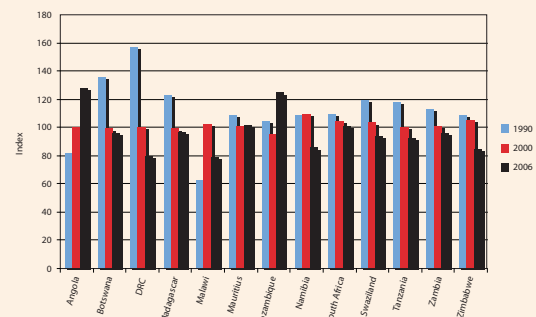
## UNDERLYING AGRICULTURAL PRODUCTIVITY

The poor aggregate performance of the region's agricultural sectors is grounded in sluggish growth in underlying agricultural productivity. In only two countries (Angola and Mozambique) did per capita food production increase between 1990 and 2006 (Figure 9). In Botswana, per capita food production fell by more than 30 percent over this period; in DRC it fell by almost 50 percent. These declines reflect slow growth or absolute declines in yields of cereals and roots and tubers, which together dominate food production in the region. Region-wide, yields of cereals have been flat for decades (FAOSTAT, 2008). Since 2000, cereal yields have averaged between 1.5 and 1.7 mt/ha, compared to the Africa average of 2 mt/ha (Figure 10). The region-wide yield of roots and tubers

has been rising steadily, reaching 10 mt/ha in the late 1990s, compared to the Africa average of 8 mt/ha. But the region-wide roots and tubers yield has been flat since 2000 (Figure 10).

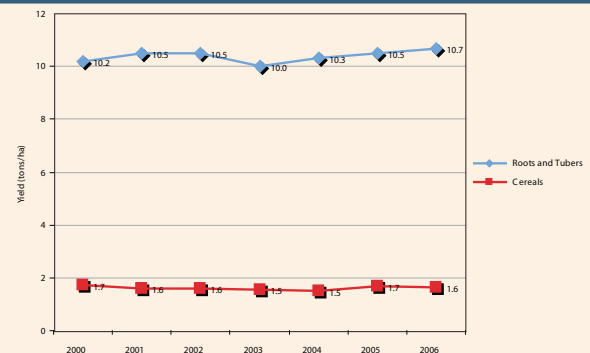
Flat region-wide yields of cereals and roots and tubers stem from slow growth in yields in most SADC countries (Figures 11 and 12). For cereals, only Mauritius and South Africa registered yield increases of 50 percent or more between 1999 and 2006; those in Malawi fell by almost that amount over the period. For roots and tubers, only Mozambique recorded a significant increase in yields, from 7,000 kg/ha in 2004 to over 10,000 kg/ha in 2006. Root and tuber yields doubled in Malawi between 1999 and 2001 but then fell thereafter. Mauritius also registered a major decline in root and tuber yields between 1999 and 2004 but recovered sharply in 2005 and 2006.

**Figure 9—Trends in Index of Per Capita Food Production in SADC Countries - 1990-2006**



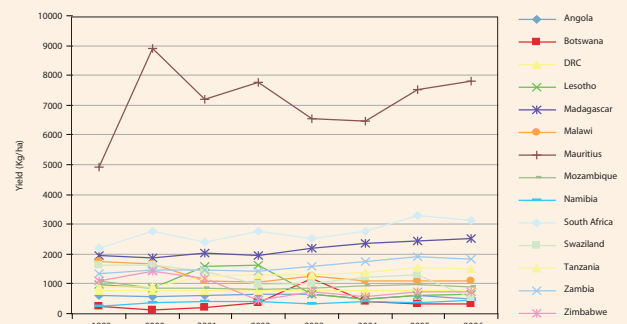
Source: FAOSTAT (2008)

**Figure 10—Trends in Yields (tons/ha) of Cereals and Roots and Tubers in the SADC Region - 2000-2006**



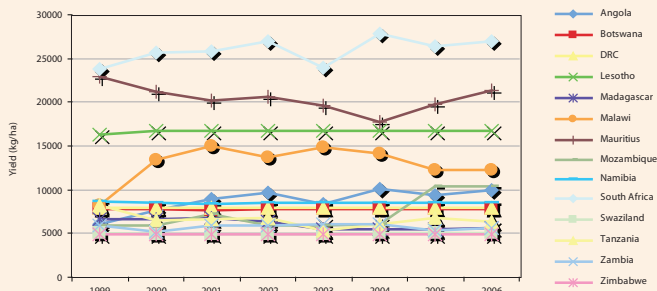
Source: FAOSTAT (2008)

**Figure 11—Trends in Cereal Yields in SADC countries - 1999-2006**



Source: FAOSTAT (2008)

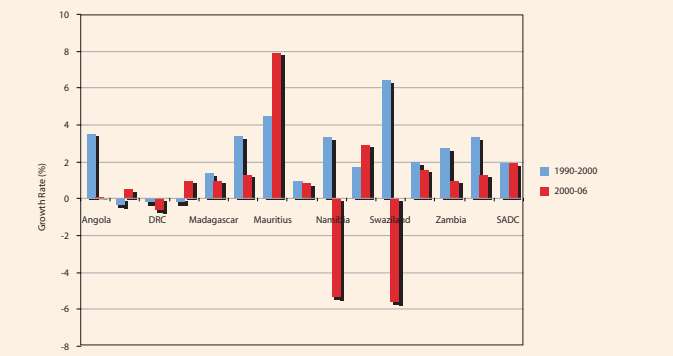
**Figure 12—Trends in Root and Tuber Yields in SADC Countries - 1999-2006**



Source: FAOSTAT (2008)

With the exception of Mauritius and South Africa, the region's livestock sectors have also grown slowly or contracted in recent years (Figure 13). Namibia and Swaziland in particular suffered large declines between 2000 and 2006. Livestock production in SADC as whole grew by barely 2 percent over this period, well below the population growth rate of 2.4 percent.

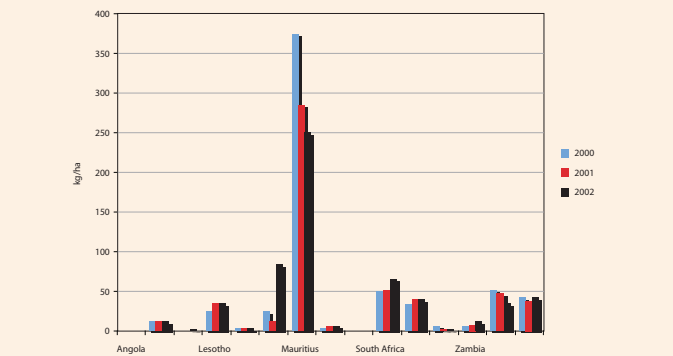
**Figure 13—Trends in Annual Growth Rate in Livestock Production in SADC Countries - 1990-2006**



Source: FAOSTAT (2008)

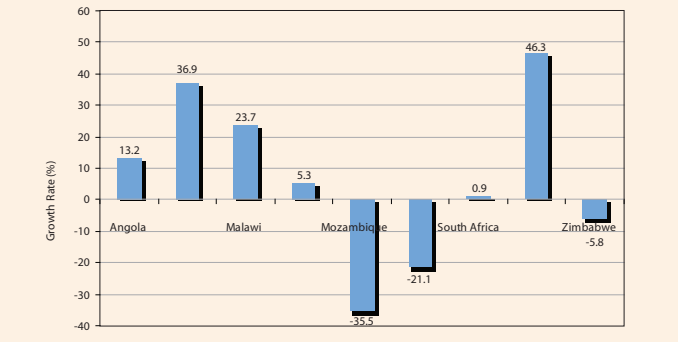
Fertilizer use is a strong driver of agricultural productivity growth, and also a powerful indicator of production incentives. Despite the poor overall performance of their agricultural sectors, several SADC countries displayed strong growth in fertilizer use between 2002 and 2005, albeit typically from small bases (Figures 14 and 15).

**Figure 14—Trends in Fertilizer Consumption in SADC Countries - 2000-2002**



Source: FAOSTAT (2008)

**Figure 15—Average Annual Growth Rate of Fertilizer Consumption in Selected SADC Countries - 2002-05**



Source: FAOSTAT (2008)

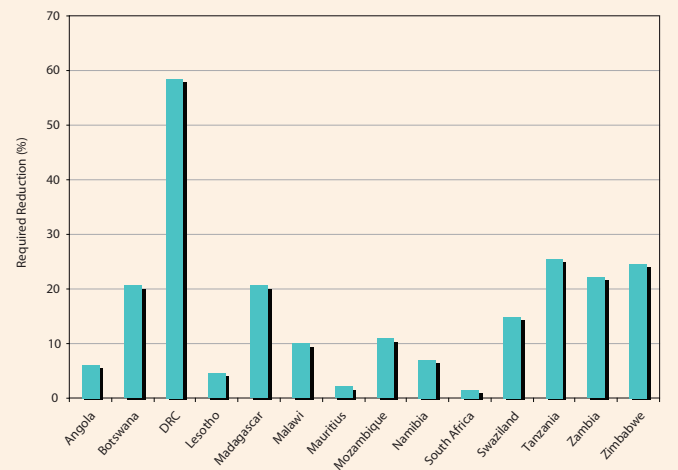
## PROGRESS TOWARD TARGETS

The preceding analysis opens scope for assessing SADC's success in achieving key targets set out in MDG1, in the CAADP, and in the RISDP. The approach is to quantify gaps between recent levels of relevant variables and corresponding targets. Major divergences are evident across the region.

### MDG1 Hunger Target

Available data does not permit a sensible assessment of success in reducing the proportion of people living on less than one dollar a day, but it does allow an examination of progress toward reducing the proportion of people who suffer from hunger. Taking 2005 as a base, the data shows that only Angola, Lesotho, Mauritius, Namibia, and South Africa are within 10 percent of achieving the MDG1 hunger target (Figure 16). However, Botswana, DRC, Madagascar, Tanzania, Zambia, and Zimbabwe must still reduce undernourishment by more than 20 percent if they are to achieve this target.

**Figure 16—Percentage Reduction in Prevalence of Undernourishment Required to Reach MDG1 Target in SADC Countries (Base = 2005)**

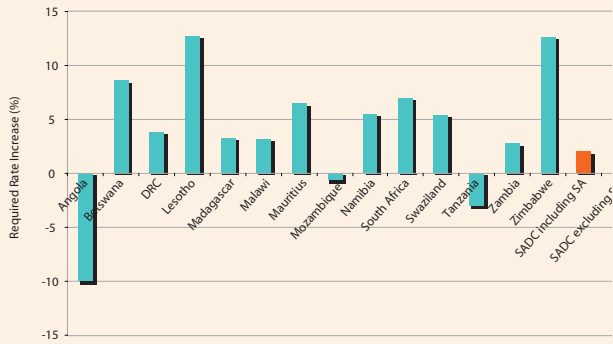


Source: Author's computations

## CAADP AGRICULTURAL GDP GROWTH TARGET

Considering average annual growth between 2000 and 2007, CAADP’s target of a 6 percent growth rate in agricultural GDP has been achieved by only Angola, Tanzania and Mozambique (Figure 17). To reach the target, SADC as a whole, and a majority of countries, must raise growth rates by 2 percent or more. DR Congo, Lesotho, Swaziland, and Zimbabwe must register increases in excess of 3 percent.

**Figure 17—Percentage Increase in Annual Growth Rate Required to Achieve CAADP’s 6 Percent GDP Growth Target (Base = 2000-07)**

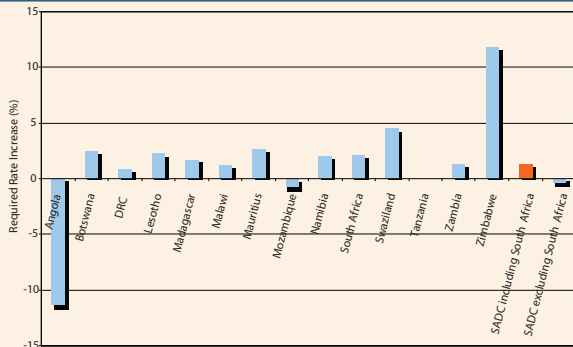


Source: Author’s computations

## RISDP TARGETS

At 7 percent, the RISDP target for annual total GDP has yet to be achieved by most SADC countries. Taking average annual growth between 2000 and 2007, only Angola has achieved this target thus far (Figure 18).

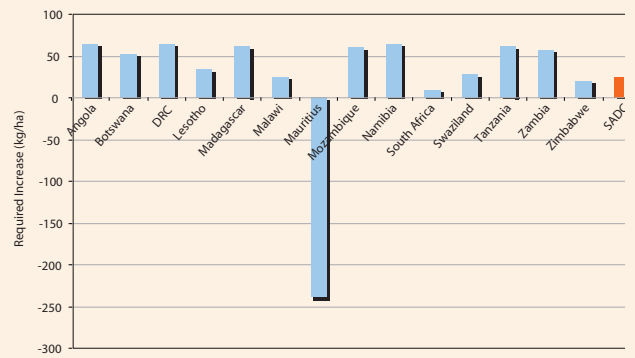
**Figure 18—Percentage Increase in Annual Growth Rate Required to Achieve RISDP’s 7 Percent total GDP Growth Target**



Source: Author’s computations

The RISDP target to increase fertilizer consumption from 44.6 kilograms per hectare (kg/ha) of arable land to 65 kg/ha of arable land by 2015 has been achieved by only Mauritius (Figure 19). The SADC-wide average must increase by 24 kg/ha, with only Lesotho, Malawi, Southern Africa, Swaziland, and Zimbabwe needing lower or comparable increases. All other countries must increase consumption by over 50 kg/ha.

**Figure 19—Increase in Fertilizer Consumption (kg/ha) Required to Achieve RISDP Target of 65 kg/ha**

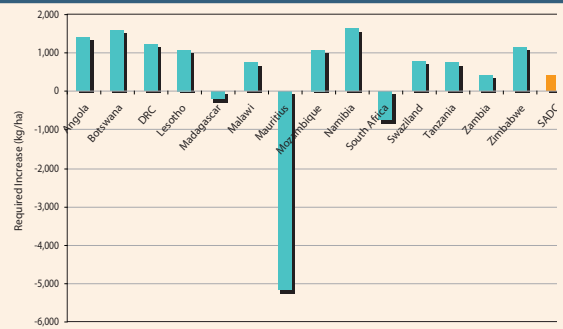


Source: Author’s computations

The RISDP target to increase cereal yield from an average of 1,392 kg/ha to 2,000 kg/ha by 2015 has been attained by only Madagascar, Mauritius, and South Africa (Figure 20). Seven countries must increase average yields by over 1000 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.

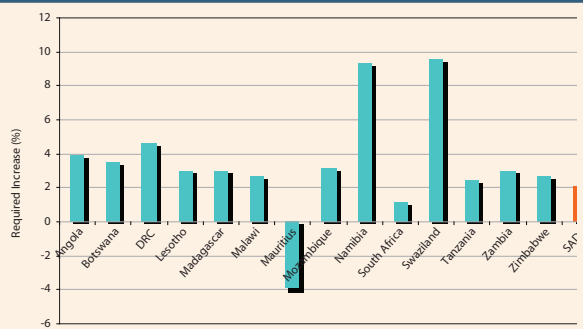
The RISDP target to increase livestock production by at least 4 percent annually has been achieved by only Mauritius (Figure 21). The region as whole must increase production by over 2 percent. Livestock production in all SADC countries except South Africa must increase by at least 2 percent per year, with DRC requiring an increase of over 4 percent, and Namibia and Swaziland each requiring increases of over 9 percent.

**Figure 20—Required Increase in Cereal Yield (kg/ha) to Achieve RISDP Target of 2,000 kg/ha (base = 1999-2006)**



Source: Author’s computations

**Figure 21—Divergences from RISDP Livestock Production Target**



Source: Author’s computations

## CONCLUSIONS AND POLICY RECOMMENDATIONS

Recent performance in the agriculture sector in southern Africa suggests that the development targets will be met by few countries. However, if poverty and hunger are to be reduced significantly before 2015, faster growth is required. If post-2003 increases in the GDP growth rate were projected forward, the region would surpass both CAADP and RISDP targets by 2008. The challenge is to find a way to sustain such growth throughout the region.

Recent research under ReSAKSS suggests that growth in South Africa's GDP of 4.5 percent a year (equal to its recent performance) coupled with reductions in intra-regional barriers to trade could generate additional annual growth in real GDP in the SADC region of 3.3 percent. Similar levels of growth in SADC's other five middle-income countries would add 4.58 percent to the regional GDP growth rate. Corresponding increases in AgGDP would be 1.03 percent and 2.5 percent.

Such growth in South Africa and reductions in trade barriers could have important implications for regional food security, as captured by overall food consumption. Specifically, it could generate additional annual growth in food consumption in the SADC region of 1.88 percent. Similar levels of growth in SADC's other five middle-income countries could add 3.27 percent to the regional food consumption growth rate.

In addition, 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 2015 (World Bank, 2008b). 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 raise rural incomes over the long run. Responses to the first challenge must not be allowed to undermine those to the second.

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