ReSAKSS-SA

Annual Trends Report 2010

ReSAKSS SA Southern Africa

Regional Strategic Analysis and Knowledge Support System

FACILITATED BY IFPRI & IWMI | A PROGRAM IN SUPPORT OF CAADP IMPLEMENTATION

Agricultural Growth Trends and Outlook

for Southern Africa

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

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The ReSAKSS-SA Trends Report series is a flagship publication that provides annual agriculture sector performance trends and outlook as a basis for ongoing discussions on increased investments and growth in African agriculture. The series undergoes a standard peer-review process involving one reviewer either from within the ReSAKSS-SA network of partners or from an external organization.

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Acronyms

APRM	*African Peer Review Mechanism*
AgGDP	*Agriculture GDP*
AU	*African Union*
AU/NEPAD	*African Union/ New Partnership for Africa's Development*
CAADP	*Comprehensive Africa Agriculture Development Programme*
CEC	*Commission of the European Communities*
CRS	*Creditor Reporting System (of the Organization for Economic Co-operation and Development)*
CGIAR	*Consultative Group on International Agricultural Research*
COMESA	*Common Market for Eastern and Southern Africa*
DRC	*Democratic Republic of Congo*
ECOWAS	*Economic Community of West African States*
FAO	*Food and Agriculture Organization (of the United Nations)*
FAOSTAT	*Food and Agriculture Organisation (of the United Nations) Statistical Databases*
FDI	*Foreign Direct Investment*
FTA	*Free Trade Area*
G8	*Group of Eight*
GDP	*Gross Domestic Product*
GNI	*Gross Nation Income*
GHI	*Global Hunger Index*
HIV/AIDS	*Human Immune Deficiency Virus/Acquired Immune Deficiency Syndrome*
IFAD	*International Fund for Agricultural Development*
IFPRI	*International Food Policy Research Institute*
IIED	*International Institute for Environment and Development*
IMF	*International Monetary Fund*

IWMI	*International Water Management Institute*
M&E	*Monitoring and Evaluation*
MDG	*Millennium Development Goal*
MINAG	*Ministry of Agriculture (of Mozambique)*
MZM	*Mozambique Metical*
NTBs	*Non-Tariff Barriers*
OECD	*Organization for Economic Co-operation and Development*
ODA	*Official Development Assistance*
PPP	*Purchasing Power Parity*
REC	*Regional Economic Community*
ReSAKSS	*Regional Strategic Analysis and Knowledge Support System*
RISDP	*Regional Indicative Strategic Development Plan*
SACU	*Southern African Customs Union*
SADC	*Southern African Development Community*
SAKSS	*Strategic Analysis and Knowledge Support System*
SSA	*Sub-Saharan Africa*
TNCs	*Transnational Companies*
UN	*United Nations*
UNCTAD	*United Nations Conference on Trade and Development*
USD	*United States (of America) Dollars*
WDI	*World Development Indicators*

Executive Summary

The Southern African Development Community (SADC) countries, along with other African countries, have recognized and prioritized the agriculture sector as key to overall economic growth, poverty reduction, and enhancing food security and have accordingly committed themselves to implement several regionally, continentally and internationally shared targets or goals. These include the Comprehensive African Agriculture Development Program (CAADP), the SADC Regional Indicative Strategic Development Plan (RISDP) and the Millennium Development Goals (MDGs). Under CAADP, put together by the African Union's New Economic Partnership for Africa's Development (AU/NEPAD) and signed by African states in 2003, African governments committed to achieving annual agricultural growth of at least 6%. In order to ensure that sufficient resources were made available for the CAADP implementation, countries signed the AU Maputo Declaration in 2003 in which they agreed to increase national budgetary resources to the agriculture sector to at least 10% of their respective national budgets by 2008. The principle behind CAADP is to use agriculture-led growth to achieve the first MDG of halving poverty and hunger by 2015, a goal that is also set by SADC RISDP.

This report provides an overview of national and regional performance against international, continental and regional targets. It presents recent trends in public spending in the agriculture sector, agricultural sector performance in terms of growth and trade, poverty and hunger. In addition, the report characterizes the macro-economic and social environment that prevailed in the region to assess how the environment was conducive to improved agricultural investments and performance. Furthermore, the report explores the possible future outlook of agriculture growth, poverty and hunger in the region.

ENABLING ENVIRONMENT

It is noted that the region is home to several dynamic economies, with countries such as Angola, Democratic Republic of Congo (DRC), Madagascar, Malawi, Mozambique, Namibia, Tanzania and Zambia registering average gross domestic product (GDP) growth rates of above 5% between 2003 and 2009. This dynamism creates a favorable environment for investments, both agricultural and nonagricultural, in the region. In addition, the region has, on average, been experiencing a decline in debt to GDP ratios and an increase in revenue to GDP ratios. This suggests increased resources at the disposal of governments in the region, which have positive implications on agricultural sector investments.

However, huge fluctuations are reported for inflation and GDP growth rates between 1995 and 2009 indicating relatively unstable macroeconomic environments in both middle income countries (Angola, Botswana, Lesotho, Mauritius, Namibia, Seychelles, South Africa and Swaziland) and low income countries (the DRC, Madagascar, Malawi, Mozambique, Tanzania, Zambia and Zimbabwe). These trends imply that agricultural growth in the region would greatly benefit from a more stable macroeconomic environment given the inter-linkages between agricultural and nonagricultural sectors. A declining trend was found for total official development assistance (ODA) per capita both at country and regional level between 2003 and 2009. In general, ODA trends are shown to respond to the economic (mis)fortunes of donor countries or organizations.

AGRICULTURE EXPENDITURES

A disappointing situation is revealed with respect to public expenditures in the agriculture sector. Between 2004 and 2007, 11 of the 13 countries for which agriculture expenditure data were available (excluding Seychelles and South Africa) failed to meet the 10% 'Maputo Declaration' target every year. Only Malawi, Mozambique and Zimbabwe managed to reach the 10% target for some years between 2004 and 2007. In 2004 only Zimbabwe with 11.3% of total public expenditure allocated to agriculture exceeded the target 10% of total public expenditures to agriculture. The share of agriculture expenditures in total expenditures, however, declined to 10% in 2005, further declining to 6.2 in 2006 and 6% in 2007. Malawi managed to reach the 10% target for the years 2005, 2006 and 2007. These increases could be reflecting the increased subsidies the government was giving farmers. Implemented from around 2005-06, the Agricultural Inputs Subsidy Program in Malawi, provides targeted poor rural households or smallholder farmers with coupons to buy fertilizer and seed at a rate far below the market price.

A special focus on Mozambique indicates that while the budgeted amount for the agriculture sector was at least 10% of the total government budget in 2003, 2004 and 2007, the actual amounts spent remained below 10% throughout the 2001-2009 period, ranging between 1.9% in 2001 to 8.9% in 2005 which illustrates the tendency for actual agriculture expenditure to deviate from budget allocated to the sector. In fact, an average of close to 78% of funds allocated to the agriculture sector was actually spent between 2001 and 2009. This implies that the approved budget to agriculture was not being fully executed. These shortfalls could be due to imperfect projections of government tax collections and underreporting of actual spending channeled through externally supported funds. Inability of donors to honor their pledges is also likely.

The SADC region as a whole consistently failed to meet the Maputo Declaration target between 2004 and 2007, averaging 3.6, 3.6, 3.7 and 3.3% in 2004, 2005, 2006 and 2007, respectively. Low income countries have higher shares of agriculture expenditures in total

than middle income countries which could also be driven by the fact that agriculture is, on average, more important in terms of its contribution to GDP in low income than in middle income countries.

AGRICULTURAL GROWTH PERFORMANCE

The contribution of agriculture to total GDP has been declining across all periods (that is, 1990-95, 1995-2003, 2003 and 2003-09) for the majority of SADC countries, both in the middle and low income groups and in the region as a whole. Overall, the gap between agriculture GDP (AgGDP) and GDP in the region has been widening in the last decades implying that other sectors such as industry and services are gaining increasing importance as sources of growth in the region while the potential for the agricultural sector to contribute to overall economic growth and subsequently to poverty and hunger reduction goes untapped. Also of policy relevance is the finding that the contribution of agriculture to total GDP declines with income: it is higher in low income countries compared to the middle income group. This suggests that the agriculture sector is at the center of overall economic growth and poverty reduction in low income countries and that policies to foster agricultural growth should take into consideration the financial resource constraints which these countries might face.

Labor productivity is revealed to be higher than land productivity in all SADC countries with the exception of Malawi for which land and labor productivity seems to be tracking fairly close to each other. Middle income countries have a wide gap between labor and land productivity. In general, the differences in land productivity across SADC countries could be capturing the diversity of the biophysical environment with respect to agro-ecology and climate in the region. The differences in labor productivity, on the other hand, reflect differences in human capital endowment and quality.

An analysis of cereal yields in the region indicates that majority of SADC countries have, on average been falling short on the SADC RISDP target of 2,000 kg/ha cereal yield. Madagascar, Mauritius and South Africa reached this target for some periods between 1995 and 2009. In fact, Mauritius persistently met this target across all periods. It is noted that the region lags behind other developing regions in terms of cereal yields. In fact, the gap between the SADC average cereal yields and that of the other the regions such as Central America, Eastern Asia, Southern Asia, South-Eastern Asia, Western Asia and the rest of Africa has been widening over time and that this gap widens even further when South Africa is excluded from the regional calculations. Of concern, is the fact that cereal production appears to fail to match population growth in the region over the last two decades. This indicates a widening gap between production and demand for cereals. Low cereal yields, particularly in the low income countries, could be partly attributed to relatively low inorganic fertilizer use. Comparing the observed annual agriculture GDP (AgGDP) percent growth to the 6% agricultural growth set as a target by CAADP shows that the region has been performing moderately. Although slightly increasing over time, the SADC annual percentage growth in AgGDP remained below 6% across all periods: averaging 2% between 1990 and 1995, 3% between 1995 and 2003, and 4% between 2003 and 2009.

Focusing on the post-2003 year-to-year AgGDP growth rates suggest that Angola has been experiencing AgGDP growth rates of more than 6% in the post-2003 period except in 2008 where it had a growth rate of 1.8%. Considering the latest period, 2009, reveals that seven countries—Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique and Namibia—surpassed the CAADP target of 6% AgGDP growth. In fact, Mozambique has been consistently registering AgGDP growth rates of more than 6% since 2005. A regional perspective shows that SADC as a region experienced a 5.5% AgGDP growth rate in 2009 and that excluding South Africa raises the growth rate to 9.5%. The middle income group had a 6.6% growth in AgGDP while this was 4.3% for the low income group.

AGRICULTURE TRADE PERFORMANCE

The annual average share of both agricultural exports and imports in total merchandise exports and imports, respectively, is consistently higher in the low income than in the middle income group. This reiterates the importance of agriculture in low income countries.

Trends in net agricultural trade show that the majority of SADC countries are, on average, net importers of agricultural products. In fact, the agricultural trade gap for the region has been widening over time. Cereal trade indicates that SADC as a region has been a persistent net importer of cereals in the last decade. Trends in cereal trade are illustrative of how dependent exports and imports in the SADC region are on climatic conditions principally because the bulk of agricultural production is rain-fed. The sharp decline in total cereals exports and the increase in imports correspond to incidence of droughts in the region: for example the southern African region experienced droughts in 1983-84 and 1991-92, among other years. The corresponding net cereal imports were such that they rose from 1,644,625 tonnes in 1983 to 5,732,319 tonnes in 1984 and from 2,804,492 tonnes in 1991 to 9,688,498 tonnes in 1992. The variability in the net trade balance of total cereals is reflected in the trends in food aid (mainly cereals) to the SADC region. Food aid shipments to SADC rise with a fall in exports. This means food aid does bridge the gap between food supply and demand.

Trade in key livestock products (meat in this case), varies across years possibly reflecting inter-temporal variations in economic and climatic conditions. The recent trends reveal that the region on average is a net importer of livestock products. Of particular concern, is the fact that this is likely to remain a problem in the foreseeable future if current conditions continue. This calls for policy attention –in terms of prioritization and resource allocation– specifically to the livestock subsector in order to increase the exploitation of the potential of this subsector in the region.

POVERTY AND HUNGER TRENDS

Trends in national poverty rates indicate that the region has been experiencing marginal decline in poverty since 1990. Trends in poverty rates using the international poverty line, on the other hand, present a slightly different country and regional level picture. They indicate that no country, among those for which poverty data were available, had managed to reach the MDG1 target except Swaziland with a rate of 42% in 2009 against a target of 46%. Lesotho is revealed to be close to reaching the target with an international poverty rate of 36% in 2009 while the MDG1 target is 30%. Overall, it is promising to note that the low income countries have, on average, been experiencing a downward trend in international poverty rates.

A declining trend in the prevalence of child malnutrition is observed between 1990 and 2009 in all countries with the exception of Lesotho, Madagascar, South Africa and Zimbabwe. The SADC region has been experiencing slightly declining average child malnutrition rates, from 26% in 1990 to 22% in 2009. In general, the decline of child malnourishment is less among middle than low income countries. In terms of achieving the MDG1 target of halving 1990 hunger rates; this remains a challenge for nearly all countries. Only Angola managed to reduce child malnutrition rates to half of those observed in 1990, from 45% in 1990 to 20% in 2009.

Adult undernourishment has been on the rise in the SADC region, increasing from 30% in 1990 to 38% in 2009. This is consistent with the dire hunger situation in the region which is revealed by the 2010 Global Hunger Index (GHI) which covers the period from 2003 to 2008. Half of the 14 countries for which data were available can be said to have 'alarming' hunger problems based on the 2010 GHI. This is of particular concern for low income countries in the region that have, as a group, experienced an increase in GHI between 1990 and 2010.

FUTURE OUTLOOK OF AGRICULTURAL GDP GROWTH AND MEETING MDG1

Linear trend analysis (or linear projections) into 2015 based on average annual AgGDP growth rates observed between 2003 and 2009, demonstrates that while middle income countries as a group are on track to meeting the CAADP 6% annual AgGDP growth target, low income countries are not. Given the high proportion of people who are dependent on agriculture particularly in low income countries, this means these countries are likely to continue facing challenges associated with low agricultural productivity. This underscores the need to increase and sustain investments in agriculture sectors particularly in low

income countries. Broadly speaking, agriculture and agriculture-led development should remain a national and regional policy priority particularly in low income countries in the future.

A consideration of the individual countries suggests that seven out of the fifteen SADC countries are on track to meeting the CAADP target, based on the trends observed in these countries between 2003 and 2009. This includes Angola, Botswana, Malawi, Mozambique, Namibia, Seychelles and Tanzania. Overall, the erratic AgGDP growth trends in most countries suggest a relatively unstable agriculture environment in the region. This instability could be due to the relatively high dependence of agricultural growth on rainfall and general weather patterns.

The future outlook with respect to poverty and hunger trends based on international poverty rates indicate that most SADC countries are clearly not on track to reaching the MDG1 target of halving 1990 poverty rates by 2015. However, Lesotho, Malawi, Mozambique and Swaziland have actual international poverty trend lines that are declining. In fact, Swaziland has reached and surpassed the MDG1 target to halve its 1990 poverty rate. Countries for which the actual trend line for child malnutrition prevalence is clearly declining are Angola, Malawi, Mozambique, Namibia, Tanzania and Zambia. In fact, Angola has reached and surpassed the target of halving its 1990 child malnutrition prevalence.

Actual or observed trend lines for both the international poverty rate and the prevalence of child malnutrition are clearly declining for Malawi and Mozambique. Although not a guarantee for being able to meet the MD1 target of halving both the 1990 poverty and hunger levels, this suggests that, based on past data, Malawi and Mozambique have higher chances of reaching the MDG1 target –in terms of both international poverty rates and hunger prevalence– than the rest of the SADC countries. Whether this actually happens will depend on how fast the future decline will be in poverty and child malnutrition in these countries.

1. Introduction

The 2008 World Development Report highlights the role of agriculture, particularly small-holder agriculture, in fostering overall economic growth, reducing poverty and enhancing food security in developing countries and calls for increased investment in agriculture in these countries if the goal of halving poverty by 2015 is to be realized. This is particularly the case for sub-Saharan Africa (SSA) where most countries are agriculture-based and are anticipated to remain predominantly rural until about 2030 when the size of the rural population is expected to be lower than urban population (World Bank 2007). The large share of agriculture in SSA economies and the direct and indirect dependence on agriculture for livelihoods by the majority of the population puts agriculture-led development at the center of poverty reduction and enhancing food security. Existence of significant multiplier effects from agriculture to non-agriculture sectors implies that investments in agriculture could accelerate overall economic growth even in cases where agriculture itself grows at a slower pace than non-agriculture sectors (Haggblade et al. 2007).

Furthermore, evidence indicates that agricultural growth is more pro-poor than growth led by the nonagricultural sector and that focusing on accelerating only nonagricultural growth widens the rural-urban income disparities. Agricultural growth can be seen therefore, to be important in reducing poverty and income disparities (World Bank 2007). Thus improving levels and quality of investment in agriculture is critical for development. Yet, the agriculture sector in SSA faces numerous challenges in attracting investment, increasing agricultural productivity, as well as strengthening the link between agriculture and other sectors to ensure that agricultural growth has the desired economy-wide impacts. To start with, while smallholder farmers produce much of SSA's agricultural output, they are generally much poorer than the rest of the population in the sub-continent.

In the Southern African Development Community (SADC) region, agriculture remains the region's driver of economic development although the importance of agriculture varies across the region (in terms of its contribution to total gross domestic product (GDP)). Seven out of the fifteen countries in the region are classified as low income countries (see Table 1.1 below for categorization of countries by income levels) (World

Bank 2010a). A majority of the low income countries have small economies that are predominantly rural, and a large share of their populations is dependent on agriculture. Approximately, 189 million out of a total of around 270 million people in the SADC region depend on agriculture for their livelihoods, that is, food, employment and income. On average, the agriculture sector directly employs more than 50% of the labor force and accounts for 13% of total regional export earnings, contributing about 66% to the value of intra-SADC trade (SADC 2008a). The agro-processing sector in the region relies heavily on agriculture for raw materials while the agricultural growth linkages in most SADC countries remain higher than those in other sectors in both rural and urban areas. Despite the demonstrable and well-documented importance of agriculture in the region, agriculture growth rates have been low and highly variable across the region (Chilonda et al. 2007). In addition, persistence of dual agricultural systems with huge disparities between small- and large-scale farmers in southern Africa puts agriculture at the core of reducing income inequalities in the region.

SADC countries, along with other African countries, have recognized and prioritized the agriculture sector as key to overall economic growth, poverty reduction, and enhancing food security and have accordingly committed themselves to implement the Comprehensive Africa Agriculture Development Programme (CAADP) developed by African Union's New Partnership for Africa's Development (AU/NEPAD). The programme provides a strategic framework for raising African countries' agricultural productivity by targeting at least a 6% average annual growth in the agriculture sector. The CAADP encourages the adoption of sound agriculture and rural development policies through four 'pillars' or policy frameworks which include 'sustainable land and water management'; 'market access'; 'food supply and reducing hunger'; and 'agricultural research'. In order to ensure that sufficient resources were made available for the CAADP implementation, countries signed the African Union (AU) Maputo Declaration in 2003 in which they agreed to increase budget allocation to the agriculture sector to at least 10% of their respective national budgets by 2008.

In addition to participating in continental initiatives such as CAADP, SADC countries have also responded to these challenges and placed poverty reduction at the core of national and regional development policies. SADC has put together a region-wide framework for development — the Regional Indicative Strategic Development Plan (RISDP) — which identifies poverty and food security as the main development challenge facing the region. The SADC RISDP proposes a number of key targets the achievement of which is expected to result in sustainable and equitable economic growth which in turn will facilitate eradication of poverty. These targets include, among others, achieving a GDP growth of at least 7% per annum (SADC 2006) and halving the proportion of people who live on less than USD 1 a day by 2015 in line with the United Nations (UN) Millennium Development Goals (MDGs). The goals of CAADP and SADC RISDP are consistent with other regional and international goals that have been formulated to guide policies that are meant to promote socio-economic development in Africa and beyond. For example, MDG1 has the aim of eradicating poverty and hunger by 2015. Thus raising agricultural productivity and reducing hunger in the context of CAADP and SADC RISDP is seen as vital to achieving MDG1. In light of these regionally shared goals, it is important to regularly assess or monitor the progress that individual countries as well as the SADC region as a whole have made towards achieving these targets. Specifically and particular to the CAADP targets, there is a need to monitor the type and amount of investments made in the agriculture sector. In addition, it is important to also investigate whether these investments (and related policies/practices/targets) are associated with desired impacts on key selected outcomes such as agricultural growth, poverty and hunger. This report is an annual monitoring and evaluation (M&E) report whose primarily aim is to provide an overview of national and regional performance against each of the aforementioned continental and regional targets. The report gives an overview of the agricultural growth trends and outlook in the SADC region. It attempts to provide up-to-date data and information on key policy variables and questions facing SADC member states and the SADC region as a whole. It gives a broader picture of the developments in agriculture in the region, and in the process explores the possible factors that constrain agricultural growth in the region.

The rest of the report is structured as follows: the following section extends the introduction by providing a brief discussion of the data and methodology used in the report. This is followed by a discussion of the prevailing policy and/or institutional environment within the countries in the region in chapter two. The underlying assumption is that these condition the types and levels of investments going into the agriculture sector as well as the ability to implement certain policies. Chapter three discusses the CAADP implementation processes in individual countries. This is followed by a discussion that tracks countries' commitments towards increasing agricultural investments to at least 10% of the national budget in chapter four. In chapters five and six the performances of the agriculture sector in the terms of growth and trade, respectively, in the region are evaluated. Chapter seven explores poverty and hunger trends in the region while chapter eight concludes the report.

1.1 Data and Methodology

In order to track the progress that countries have made towards achieving CAADP and SADC RISDP goals, the report makes use of data from commonly available international databases. These include, among others, the Food and Agriculture Organization of the United Nations Statistical Databases (FAOSTAT) and MDG statistics, the World Banks's World Development Indicators (WDI), the Organization for Economic Cooperation and Development (OECD), and the International Monetary Fund (IMF)'s Government Finance Statistics. These data are supplemented by data from national sources to illustrate region-wide trends.

The report gives an overview of the agricultural growth trends and outlook for individual SADC member states as well as for the region.[1] The primary unit of analyses is the country, with the regional level analyses used to give a broader view of the situation in the region. The regional level data are from some form of aggregation of country level data. The type of aggregation varies by indicator but basically involves summation in the case of variables/ indicators such as population and GDP, while for indicators whose original data were in percentages or ratios (for example, debt-GDP ratio and growth rates), a weighted sum approach was used in which the weight for each country is calculated as the share of the country's value (for example, GDP) in total regional value.[2] To compare how the SADC countries and the region as a whole are performing relative to other aggregated groups or regions such as the sub-Saharan Africa (SSA), statistics or values for these are presented.

In addition, country-level data are also categorized by income level into low and middle income groups using the World Bank classification of economies based on Gross National Income (GNI).[3] Eight of the fifteen SADC countries are classified as middle income countries (see Table 1.1).

TABLE 1.1 ECONOMIC CLASSIFICATIONS OF SADC MEMBER STATES.

Middle income	Low income
Angola	Democratic Republic of Congo
Botswana	Madagascar
Lesotho	Malawi
Mauritius	Mozambique
Namibia	Tanzania
Seychelles	Zambia
South Africa	Zimbabwe
Swaziland	

Source: World Bank (2010a).

[1]Note that in this report reference to 'region' refers to SADC unless explicitly stated otherwise.

[2]Details on the weights used for each indicator, where applicable, are presented in the annex.

[3]The classification we use here is based specifically on the 2009 GNI per capita. The groups are: low income, USD995 or less; lower middle income, USD996 - USD3,945; upper middle income, USD3,946 - USD12,195; and high income, USD12,196 or more (World Bank 2010a). Note that countries classified here as middle-income include those classified by the World Bank as lower-middle income and upper-middle income.

In addition to the low and middle income classifications, we also consider, where instructive, a group which consists of all SADC countries except for South Africa. This follows from the realization that South Africa accounts for close to 65% of the total SADC output and hence may be seen as an outliner in the region and so this group could help give a clear picture of the average performance of the other 14 countries.

In summary, in addition to the country-level figures, figures for five other groupings which include SADC, SADC excluding South Africa, SADC middle income countries, SADC low income countries, and sub-Saharan Africa are presented. These different aggregation levels give an overview of how each individual country is performing relative to other countries, to the region, and the sub-continent.

In presenting the statistics, due importance was paid to the year 2003 as the year in which CAADP was initiated. The figures are presented so as to give a picture of the situation before and after 2003, subject to data availability. In keeping with the fact that this is an M&E report, we present, as far as possible, both annual average levels and changes in the values of the indicators in order to assess performance over time as well as progress towards achieving any stated CAADP targets. The ambition is to cover the period from 1990 to 2009. To overcome the problems of large variations associated with analysing trends based on actual year-to-year changes we focus on 5 to 8 year averages across four periods namely 1990-1995, 1995-2003, 2003, and 2003-2009. The ability to cover all four periods is subject to data availability.

2. Enabling Environment

The creation of an enabling environment is one of the key building blocks in the implementation, monitoring and subsequent achievements of regionally shared goals, in particular those of CAADP, SADC RISDP and MDGs. The prevailing environment, to a large extent, is crucial not only for increasing investment and stakeholder engagement, but also in conditioning the impact of those investments on selected outcomes such as agricultural productivity, poverty, and hunger.

While a multiplicity of factors determine/define the enabling environment for agriculture sector investments, this report focuses on the following: the socioeconomic context which includes a brief discussion of SADC membership, the human demographic profile of the region as well as a discussion of key macroeconomic indicators such as GDP per capita, GDP growth rate, inflation, government debt-GDP ratio, and government revenue-GDP ratio; and the policy and institutional environment at international, regional and national level. The report also discusses the trends in official development assistance (ODA) as an indicator of the external or international environment affecting agriculture.

2.1 Socioeconomic Environment

2.1.1 SADC Membership

SADC membership comprises 15 countries (Figure 2.1): Angola, Botswana, the Democratic Republic of Congo (DRC), Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe.[4]

2.1.2 Human Demographic Profile

The combined population of SADC stood at around 270 million in 2009. The Democratic Republic of Congo (DRC) has the largest population (66 million) followed by South Africa (49 million) and Tanzania (44 million). With a population of 88,000, Seychelles is the region's least populated country (World Bank 2010b). The combined regional population as well as population disparities among member states underscore the need for increased regional integration as this will lead to larger markets.

While the region, like the rest of the developing world, is undergoing rapid urbanization, the majority of the population lives in rural areas and are dependent on (subsistence) agriculture for their livelihoods (Chilonda et al. 2007). The region is home to one of the poorest people in the world, with close to 45% of the total SADC population living on 1 USD per day. Malnutrition remains rife, ranging from 44 to 72% across the region (SADC 2008b). Although the causes and consequences of poverty vary from country to country, in general, rural poverty is prevalent in the region and has been attributed mainly to low agricultural productivity, extreme vulnerability to natural disasters such as droughts and floods (for example, in Mozambique) and poor infrastructure. (IFAD 2007). Moreover, the high incidence of HIV/AIDS in southern African countries intensifies poverty.

FIGURE 2.1 THE SADC REGION.

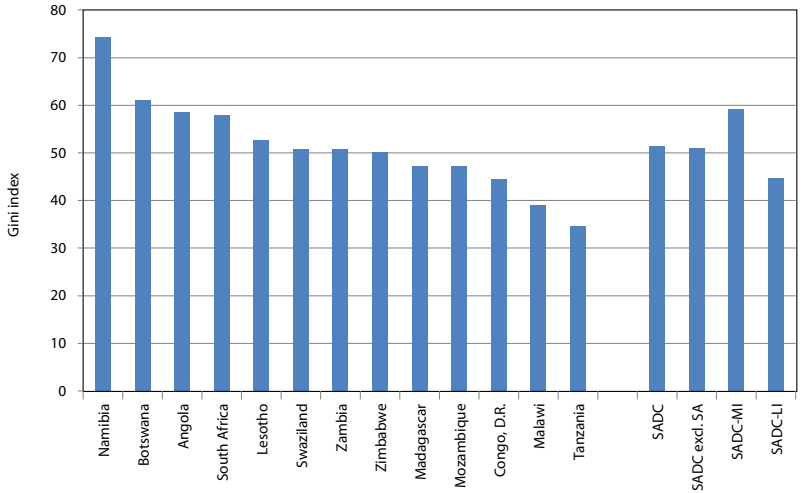


FIGURE 2.2 INCOME INEQUALITIES IN SADC MEMBER STATES.
Source: Authors' calculations based on Gini indices from the 2010 WDI (World Bank, 2010b).
Notes: The Gini index lies between 0 and 100. A value of 0 represents absolute equality and 100 absolute inequality. In the above figure and in all subsequent figures, Congo, D.R.=Democratic Republic of Congo; SADC excl. SA=SADC excluding South Africa; SADC-MI=SADC middle income countries; SADC-LI=SADC low income countries; and SSA=sub-Saharan Africa.

[4]Although Madagascar was, through an extraordinary summit of the SADC in March 2009, suspended from the bloc, it is included in the analysis.

Another concern for the majority of SADC countries is the highly uneven income distribution. Figure 2.2 presents the average Gini index for the period 1992 to 2007.[5]

Figure 2.2 reveals that Namibia was characterized by an extremely uneven distribution of income between 1992 and 2007 (Gini index of around 74), followed by Botswana (61) and Angola (59). Overall, eight countries in the region have a Gini index above 50 while the regional average is 51, indicating relatively high income inequalities in the region. Income inequalities are particularly higher, on average, among middle than low income countries: the average Gini index in the middle income group is 59 while it is 45 in the low income group.

Also of concern in the region is the declining trends in life expectancy, averaging slightly below 40 years in 2008 (SADC 2008b). Swaziland and Zimbabwe had the lowest life expectancy for females (45 years) in 2008, while Seychelles has the highest at 79 years. In terms of male life expectancy, Mauritius had the highest (69 years) while Lesotho and Zimbabwe had the lowest (44 years) (World Bank 2010b). The decline in life expectancy is partly due to high prevalence of HIV/AIDS and malaria, and the low intake of calories in the region (Chilonda et al. 2007).

Infant mortality rates remain above 50 per 1,000 births for most countries in the region (SADC 2008b). The under-five mortality rate, which is the probability per 1,000 that a newborn baby will die before reaching the age of five, if subject to current age-specific mortality rates, shows that Angola had the highest infant mortality rates (161) in 2009, followed by Mozambique (142) and Zambia (141), while Seychelles has the lowest mortality rates (12) (World Bank 2010b).

2.1.3. Macroeconomic Environment

Figure 2.3 illustrates the relative economic importance of each country in the region by showing each country's contribution to the regional GDP in 2009. In 2009 SADC had a

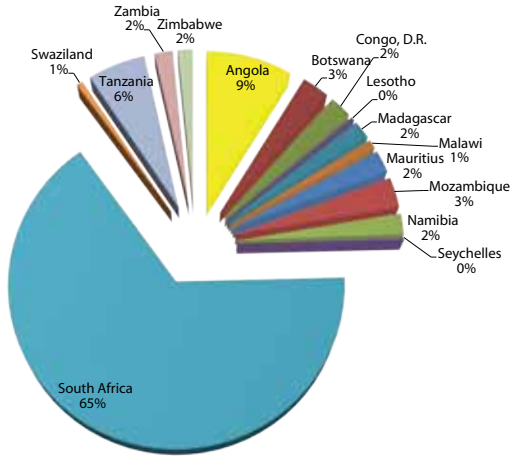


FIGURE 2.3 NATIONAL SHARES IN REGIONAL GDP (2009).
Source: Authors' calculations based on GDP figures from the 2010 WDI (World Bank, 2010b).
Notes: 2009 GDP data for Zimbabwe is imputed.

[5]The Gini index is the Gini coefficient multiplied by 100. It measures the degree of inequality in the distribution of income in a given country by capturing the extent to which the distribution of income among individuals within the country deviates from a perfectly equal distribution indicated by zero.

combined GDP of around USD273 billion (measured in constant 2000 USD). South Africa is the biggest economy in the bloc, with a GDP of nearly USD182 billion in 2009. This constitutes about 65% of the total SADC economy. The second largest is Angola, followed by Tanzania. The country with the smallest economy is Seychelles.

As Figure 2.1 shows, the SADC region is unique in the sense that it has a number of middle and low income countries adjacent or in close proximity to each other. Specifically all low income countries, except Tanzania and Malawi, share a border with at least one middle income country. This presents the region with a unique opportunity for middle income countries to influence growth in low income countries through for example regional trade, foreign direct investment (FDI), and spillover effects.

In terms of GDP per capita, Table 2.1 shows a wide variation across the four periods being considered. Seychelles had the highest annual average per capita GDP across all four periods (note that Seychelles is the least populated country in the region). The DRC had the lowest GDP per capita in the latest period, 2003-09. The regional annual average GDP per capita remained consistently above that of SSA. Table 2.1 shows that the period 1990-95 was, on average, disappointing for most countries. These economic misfortunes could be partly due to the 1991-92 droughts that were experienced by most southern African countries. This highlights the importance of the agriculture sector in driving GDP trends in the region. These economic misfortunes were, for most countries, reversed in 1995-03.

Trends in GDP growth rates are presented in Figure 2.4 and Figure 2.5 for middle and low income countries, respectively. Figure 2.4 shows that, among middle income countries, Angola experienced consistent growth across the four periods, although it started off with a negative annual average growth of -3.20% in 1990-95. South Africa also showed fairly consistent positive growth was South Africa, although at a much slower rate than that of Angola. However, both Angola and South Africa experienced negative annual average percentage point change in the periods 1995-03 and 2003-09 (see Table A.1 in the Annex). Angola's high growth rates can be attributed largely to its oil sector, owing to high oil prices and rising petroleum production. The sector contributes close to half of the country's GDP

TABLE 2.1 ANNUAL AVERAGE GDP PER CAPITA (CONSTANT 2000 USD).

Region/Country	1990-95	1995-03	2003	2003-09
Angola	628.16	632.66	730.04	1,038.75
Botswana	2,608.47	3,153.86	3,762.96	4,038.80
Congo, D.R.	152.08	95.08	83.25	90.70
Lesotho	365.53	412.65	436.53	479.93
Madagascar	260.15	244.47	233.50	253.56
Malawi	133.87	142.24	130.15	144.45
Mauritius	2,837.09	3,620.90	4,100.21	4,489.81
Mozambique	183.72	231.16	279.08	324.59
Namibia	1,945.73	2,116.18	2,291.94	2,551.26
Seychelles	6,008.77	7,002.63	6,973.28	7,477.71
South Africa	2,989.05	3,031.55	3,177.20	3,507.92
Swaziland	1,199.51	1,313.97	1,430.39	1,504.58
Tanzania	255.56	266.25	297.05	334.07
Zambia	352.64	315.72	328.42	362.84
Zimbabwe	617.08	609.45	505.89	202.60
SADC	890.54	879.61	908.07	976.58
SADC excl. SA	346.17	341.85	355.66	386.25
SADC-MI	2,349.47	2,401.16	2,535.64	2,826.11
SADC-LI	242.78	225.15	221.69	220.84
SSA	501.39	507.07	528.79	574.83

Source: Authors' calculations based on GDP and population figures from the 2010 WDI (World Bank, 2010b).

and 90% of its exports. Mauritius and Swaziland, on the other hand, appear to have been on a consistent decline in growth rates across the four periods, while although Botswana experienced growth in the first three periods, it had a sharp decline from close to 7% in 2003 to 3% in 2003-09.

In the case of low income countries, Figure 2.5 reveals consistently positive annual average growth rates for Madagascar, Malawi, Mozambique, and Tanzania. The DRC had sharp increases in annual average growth although this slowed down in 2003-09. All countries except Zimbabwe had, on average, positive annual average GDP growth rates implying that Zimbabwe is driving the trends observed in the low income group. Only Mozambique is revealed to have had consistently positive annual average growth rates as well as annual average percentage point changes across all periods (see Table A.1 in the Annex). In fact, favourable growth patterns were registered for more than half of the countries in the period 2003-09 (with positive annual average percentage point changes).

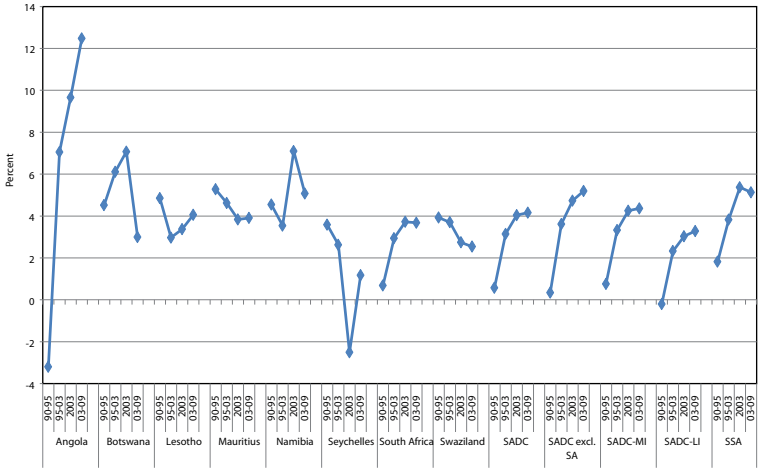


FIGURE 2.4 GDP (CONSTANT 2000 USD) GROWTH RATES, MIDDLE INCOME COUNTRIES.
Source: Authors' calculations based on GDP figures from the 2010 WDI (World Bank, 2010b)

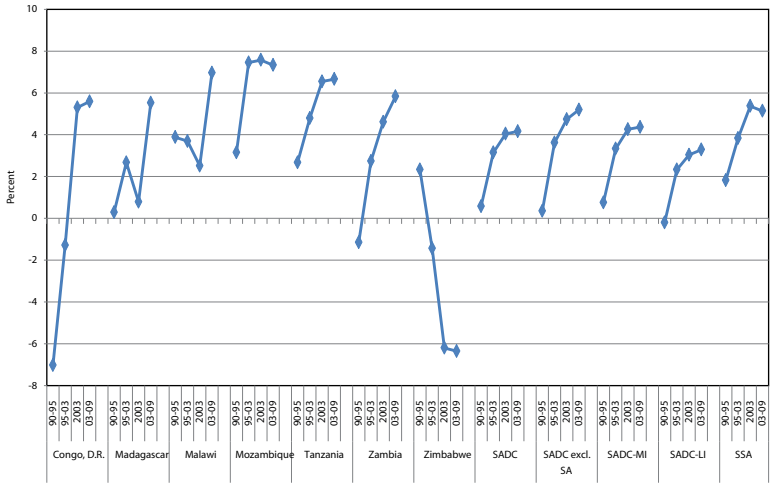


FIGURE 2.5 GDP (CONSTANT 2000 USD) GROWTH RATES, LOW INCOME COUNTRIES.
Source: Authors' calculations based on GDP figures from the 2010 WDI (World Bank, 2010b).

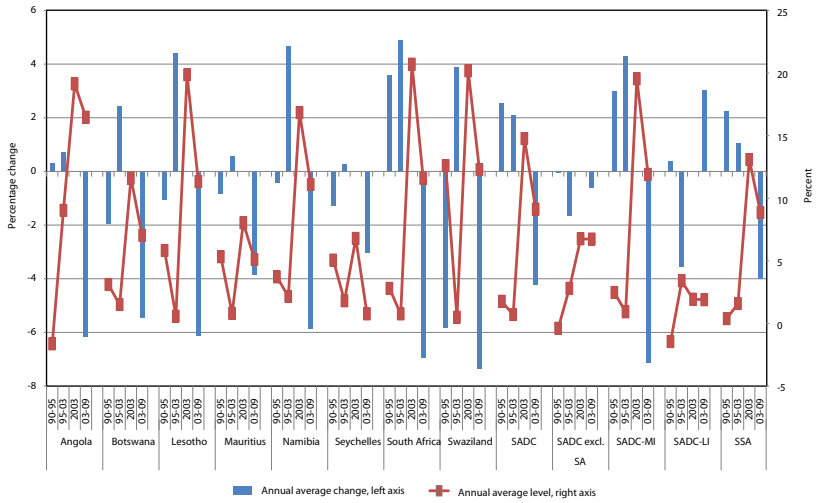


FIGURE 2.6 ANNUAL INFLATION (GDP DEFLATOR), MIDDLE INCOME COUNTRIES.
Source: Authors' calculations based on GDP figures from the 2010 WDI (World Bank, 2010b).

In general, Figure 2.4 and Figure 2.5 show that the region is home to several dynamic economies, with countries such as DRC, Madagascar, Malawi, Mozambique, Namibia, Tanzania, and Zambia registering average GDP growth rates of above 5% between 2003 and 2009. This dynamism creates a favourable environment for investments, both agricultural and non-agricultural, in the region.

Trends in inflation levels are reported in Figure 2.6 for middle income countries and Figure 2.7 for low income countries. Overall, huge fluctuations in inflation rates indicate relatively unstable macro-economic environments in both middle and low income countries.

Starting from a negative annual average growth in 1990-95, Angola is the only country to report deflation (negative inflation) among middle income countries. Huge fluctuations in average annual inflation are displayed by most countries, where a decline is reported from 1990-95 to 1995-03, increasing in 2003 and then declining in 2003-09. This pattern is confirmed by the average values for all middle income countries.

Similar patterns are revealed for some low income countries: DRC, Madagascar, and Tanzania (see Figure 2.7). Besides Zimbabwe, all low income countries experienced positive annual inflation with Malawi having the highest at 16.8% in 2003 which was followed by a decline to 2.51% in 2003-09.

Consistent with the trends at continental level, inflation in the SADC region declined between 1990-95 and 1995-03 (from 1.76 to 0.7%) but rose to 9.13% in 2003-09. In 2003-09, this increase was higher for middle income countries (11.90%) compared to low income countries (1.88%).

Other key determinants of a stable macroeconomic environment are the government gross debt to GDP ratio and revenue to GDP ratio. The regional trends in these indicators are illustrated in Figure 2.8 for the middle income countries and Figure 2.9 for the low income countries.

Countries for which the government gross debt to GDP ratio consistently declined across the three periods include Angola, Lesotho, South Africa, and Swaziland. Botswana, Mauritius, Namibia, and Seychelles experienced growth in the debt-GDP ratio in 2003. Seychelles, in particular, had relatively high debt-GDP ratios: 150% in 2000-03, 160% in

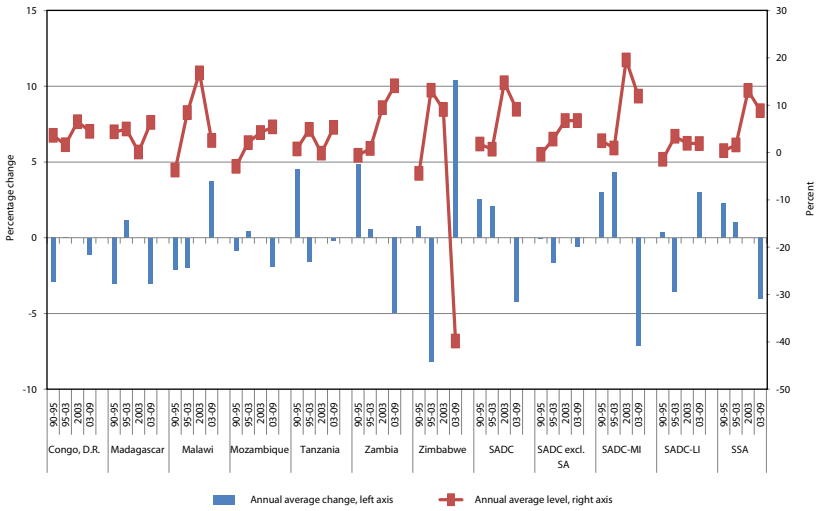


FIGURE 2.7 ANNUAL INFLATION (GDP DEFLATOR), LOW INCOME COUNTRIES.
Source: Authors' calculations based on GDP figures from the 2010 WDI (World Bank, 2010b).

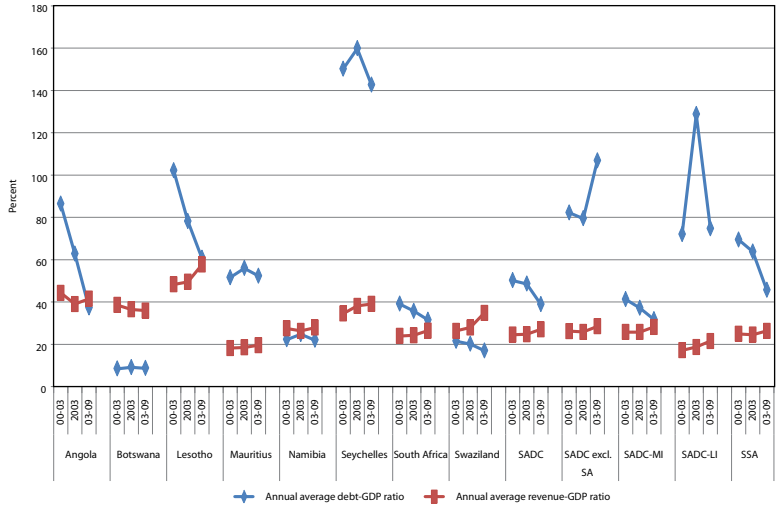


FIGURE 2.8 GOVERNMENT GROSS DEBT-GDP AND REVENUE-GDP RATIO, MIDDLE INCOME COUNTRIES.
Source: Authors' calculations based on GDP, government gross debt and revenue figures from the 2010 WDI (World Bank, 2010b).

2003 and 143% in 2003-09. The revenue to GDP ratios fluctuated less than the debt to GDP ratios across all countries and all time periods. However, they had fairly similar patterns in the case of Namibia.

Considering the low income countries, on the other hand, all of them had a persistent decline in debt-GDP ratios across the three periods. Zambia stands out with a decline of 206% in 2000-03 to 75% in 2003-2009. For all low income countries and across all three time periods, the debt-GDP ratios are consistently higher than the revenue-GDP ratios. This is of concern considering that whatever the proportion of a government's liabilities, what matters ultimately is how they compare to the resources available to service them.

Looking at the region as a whole, the region's government gross debt to GDP ratio has been consistently declining between 2000 and 2009, decreasing from 50% in 2000-03 to 39% in 2003-09. This declining trend is consistent with the trends observed for SSA.

It is noted from Figure 2.8 and Figure 2.9 that all countries, except Botswana and Mauritius, experienced a reduction in indebtedness between 2000-03 and 2003-09. All countries except Botswana experienced increased general government revenue to GDP ratios between 2003 and 2003-09. Similarly, increased revenue-GDP ratios were recorded by SADC, SSA and low income countries.

Taken together, the declining debt to GDP ratio and the increasing revenue to GDP ratio signal increased the amount of resources available for disposal by governments. This presents an opportunity for governments to increase agricultural sector investments.

2.2 *Policy and Institutional Environment*

The importance of agriculture in Africa as well as the challenges constraining the sector's role in overall economic growth, poverty reduction and food security continues to gain international, regional and national policy attention. This is reflected in several initiatives that have led to an increased commitment by countries to allocate more resources to the sector as well as in countries' policy reforms that are aimed at creating an environment

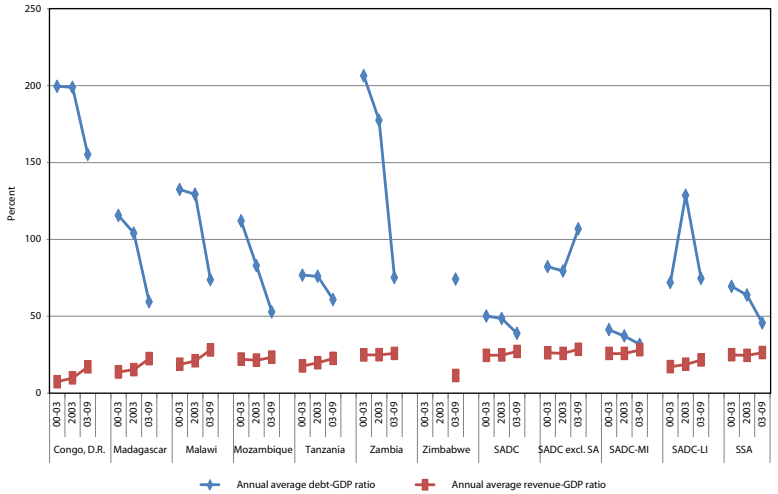


FIGURE 2.9 GOVERNMENT GROSS DEBT-GDP AND REVENUE-GDP RATIO, LOW INCOME COUNTRIES.

Source: Authors' calculations based on GDP, government gross debt and revenue figures from the 2010 WDI (World Bank, 2010b).

that is conducive to increased agriculture investments. In this section we provide a brief overview of these initiatives.

2.2.1 International and Continental Environments

Several international and continental initiatives, policies or agreements have been put in place in support of agriculture-led development. Of particular international significance was the World Bank's publication of the 'World Development Report 2008: Agriculture for Development', the first World Development Report on agriculture since 1982. This was a significant reflection of the international community's renewed interest in the sector's potential to steer economic growth and subsequently reduce poverty and hunger in developing countries. Also reflecting growing global support for agriculture-led development is the fact that in 2007 the Commission of the European Communities (CEC) committed themselves to advancing African agricultural development (CEC 2007). In 2009 Group of Eight (G8) countries, through a summit in L'Aquila, Italy, resolved to substantially increase aid to agriculture and food security through multiyear resource commitments, committing themselves to mobilizing USD20 billion over three years for medium and long-term agricultural initiatives to support smallholder farmers in Africa. Furthermore, the 2009 World Food Summit identified underinvestment in food security, agriculture, and rural development, among other factors, as causes of poverty and hunger in developing countries.

Institutional and policy support at the continental level has also been growing. CAADP is a good reflection of this, demonstrating African governments' recognition of agriculture as vital for poverty and hunger reduction and hence for reaching the MDGs. It is the most ambitious and comprehensive fully owned and African-led agricultural reform effort ever undertaken in Africa. Launched in 2003 by AU/NEPAD, CAADP seeks to eliminate poverty in Africa through agriculture. Although it is a continent-wide initiative, CAADP builds on national and regional plans for agricultural development. The program is a strategic framework to guide investments in agriculture across four thematic 'pillars' that serve as policy frameworks for national and regional programs. These include 'sustainable land and water management'; 'market access'; 'food supply and reduction of hunger'; and 'agricultural research'. CAADP targets a 6% average annual growth in the agriculture sector.[6]

The CAADP framework is supported by the 2003 Maputo Declaration in which African governments committed to allocation of at least 10% of their respective national budgetary resources to the agriculture sector. In addition, the Heads of State and Government resolved, inter alia, to revitalize the agriculture sector special policies and strategies that target smallholder and subsistence farmers in rural areas.

2.2.2 Regional Environment

In addition to supporting member countries with the implementation of CAADP (through for example assisting member countries with drafting of their respective CAADP compacts), the SADC region has also placed poverty reduction at the core of its development policies through several strategic policies/plans. Particular examples include the Regional Indicative Strategic Development Plan (RISDP) and the Dar es Salaam Declaration on agriculture and food security. Another significant regional initiative is the launching of a Free Trade Area (FTA) in 2008.

2.2.3 Regional Indicative Strategic Development Plan (RISDP)

RISDP is SADC's 15-year strategic framework for deepening regional integration and in the process eradicating poverty and achieving sustainable development. It was approved by the SADC Council and endorsed by a Summit in 2003 following extensive stakeholder consultations in all member states and taking into consideration regional and international

[6]For more details on CAADP and CAADP projects please refer to http://www.nepad-caadp.net/

parameters such as AU, NEPAD, World Trade Organization (WTO) and the MDGs. The priority policy intervention areas identified by SADC RISDP include poverty eradication; decreasing the number of people infected and affected by HIV/AIDS; ensuring gender equality and development, science and technology; environment and sustainable development; private sector development; developing and maintaining reliable statistics; trade, economic liberalization and development; infrastructure development; and human and social development. In addition and relevant to this report is RISDP's identification of sustainable food security as a priority intervention area in the region.

Furthermore, SADC RISDP reiterates the region's commitment to good political, economic and corporate governance as prerequisites for sustainable socioeconomic development, and essential to the success of the region's poverty eradication efforts and deeper levels of integration. This regional emphasis on internationally upheld principles of good governance are crucial in creating an enabling environment for increased regional and international investment, while by according priority to agriculture in the region, RISDP draws policy and investor's interest to the sector.

2.2.4 *Dar es Salaam Declaration on Agriculture and Food Security*

SADC Heads of State and Government reiterated food security as one of the major challenges in the region and accordingly adopted the Dar es Salaam Declaration on Agriculture and Food Security on 15 May 2004 (this was in the aftermath of the 2001-03 drought and subsequent food emergencies in several SADC countries). As per this 'Declaration' leaders agreed to develop and implement short term (2004-06), and medium to long term (2004-10) action plans to promote agricultural development and food security in member states. Short-term measures sought to increase agricultural production and value-addition through processing and agri-business development. Specific short term measures included provision of key agricultural inputs; crop and livestock pest and disease control; livestock, fisheries and drought tolerant crop improvement; improved water management and irrigation services; and agro-industrial development. The medium to long term measures included sustainable management of natural resources; reform of extension services; farmer training; support to farmers' organizations; removing gender discrimination; mitigation of the impact of HIV/AIDS. At the regional level, the declaration included measures on market access and disaster preparedness.

2.2.5 *The SADC Free Trade Area*

A recent major milestone in the SADC regional integration agenda was the launching of a free trade area (FTA) in August 2008 in South Africa, which opens the gates to tariff and barrier free trade among the community's 15 countries. The FTA came into effect through the signing and launching of the SADC Protocol on Trade in 2000. It is a significant step towards deeper regional economic integration, which is to be achieved on an incremental basis leading to a Customs Union by 2010, a Common Market by 2015, a SADC Monetary Union and SADC Central Bank by 2016, and launching of a regional currency by 2018 (SADC, 2008c). At the moment there are 11 countries participating in the FTA, which includes all countries except Madagascar (due to its suspension from the regional bloc in 2009), Angola, DRC and Seychelles (which have not acceded to the Protocol on Trade).

The main element of the FTA is that it mandates FTA member states to liberalize trade via removal of tariffs and other non-tariff barriers (NTBs), with tariffs reduced to zero for substantially all products. Around 85% of goods traded in the FTA are duty-free, while 15% of mainly sensitive products (good of economic importance to member states) will be subjected to a 'tariff phase down' until they have zero tariffs by 2012 (SADC 2008c). For goods to qualify for the FTA treatment, they need to meet the 'rules of origin' which are essentially a set of agreed criteria used to distinguish between goods produced within SADC member states and those that aren't.[7] In terms of NTBs, member states have agreed to eliminate all of them

[7]For more details on the SADC FTA please refer to www.sadc.int/fta

and not impose any new ones, except when necessitated by health or safety concerns. In addition to the removal of standard tariff and non-tariff barriers, the FTA aims to facilitate trade by reducing red tape and paperwork at the borders and easing the constraints facing the movement of goods throughout the region.[8] This is, especially important given that some SADC member states — Botswana, Lesotho, Malawi, Swaziland, Zambia and Zimbabwe — are landlocked and as a result have to rely on their neighbors for movement of exports and imports. The improved movement of goods resulting from the FTA is expected to reduce transaction costs and result in lower prices for consumers and bigger markets for producers.[9] Other envisaged benefits include: increased trade, increased domestic production, access to cheaper inputs, increased employment and increased foreign direct investment which is expected to also involve investment in the agriculture sector.

The launching of the FTA is a significant development in terms of creating an enabling environment for agriculture in the region, especially given that most SADC economies are largely agrarian. The countries are diverse in terms of their agricultural potential, for example, some are more prone to droughts (Botswana, Namibia, Zambia and Zimbabwe) than others, some have climatic conditions that are favorable for food production (Malawi, Zambia and Zimbabwe), while others have limited arable land (Botswana and Namibia) with a comparative advantage in livestock instead of crop production. This diversity creates an opportunity for increased trade in agriculture and food products within the region, which makes the launching of a FTA particularly commendable. Furthermore, the fact that SADC countries are at different levels of economic development suggests that improved integration presents trade and development opportunities for both low and middle income countries. While the establishment of the FTA is significant, there is a need to consider additional interventions beyond trade arrangements such as enacting and strengthening policies that seek to promote agricultural investments, productivity as well as diversification (Nin-Pratt et al. 2008). Initiatives such as CAADP and SADC RISDP are examples of such policies.

2.2.6 National Environment

At the national level, SADC member states, in addition to embracing regional, continental and international initiatives, have put in place national policies that seek to create an environment that support the implementation of these initiatives. These include, among others, signing of the CAADP Compacts, development and adoption of national strategies or policy documents to guide agriculture and efforts to enhance food security. In addition, SADC member states have also undertaken policy reforms that seek to improve governance conditions and subsequently improve the environment for investments and doing business in the country.

2.2.7 Improving the Environment for Doing Business

In order to ensure that the prescribed strategies and policies are properly implemented and are able to have an impact, SADC member states have been undertaking governance reforms that are primarily aimed at creating an environment in which investments (including agricultural investments) can thrive. Accordingly, to assess whether or not an environment is conducive to investments and the ability to reap the benefits accruing from those investments exists in SADC countries, the countries' rankings in terms of the ease of doing business are presented. An environment in which it is easy to conduct business is expected to be vital in mobilizing private and foreign direct investment in agriculture.

The 'Doing Business' indicator ranks, from 1 to 183, economies on their ease of doing business. This index averages the country's percentile rankings on nine topics which include: starting a business, dealing with construction permits, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and closing a business, made up of a variety of indicators, giving equal weight to each topic. The ranking on each topic is the simple average of the percentile rankings on its component indicators. A low overall ranking means the regulatory environment is more conducive to the starting and operation of

[8]For example a single customs administrative document (SADC-CD) has been introduced to ensure speedy customs clearance of goods at entry points.

[9]The SADC Cooperation in Standardisation, Quality Assurance, Accreditation and Metrology (SQAM) has been tasked with ensuring that the traded goods meet internationally agreed standards for the safety of consumers

a business.[10] The overall 'Doing Business' rankings for all SADC countries for 2009/2010 and 2010/2011, along with the change in ranking between these periods, are presented in Table 2.2. Table 2.2 suggests that five countries made gains between 2009/2010 and 2010/2011 in improving the environment for doing business. This includes Angola, DRC, Mozambique, Swaziland and Zambia. Among these countries are the top two fastest growing economies in the region (Angola and Mozambique) suggesting that improved business environments is important to facilitate overall economic growth. In particular, the improvement in the ease of doing business, especially in low income countries (DRC, Mozambique and Zambia) is vital to creating an enabling environment for much needed investments in these countries. It should be emphasized that improving the ease of doing business should be complemented by a regulatory framework that allows the development of national policies and ensures that the projects or businesses that are promoted have gone through a set criteria that considers the overall trajectory of the country's development agenda. This is particularly relevant given the increasing incidence of large scale land acquisitions in the region and other parts of SSA. Land grabs are defined as a situation where land traditionally used by local communities is leased or sold to mainly foreign investors. Whilst in many cases the land is used for food cultivation, there has been a growing interest in using it for biofuel production, particularly to supply the growing EU market. Examples of affected countries in the SADC bloc include Angola, Madagascar, Mozambique, and Tanzania (for the scale of land grabbing in these and other countries see for example, Burgis (2009) cited in Cotula et al. (2009), Kachika (2009), Reuters (2008) cited in Cotula et al. (2009).

The growing number of investment contracts is largely facilitated by developing countries' more favorable attitude to foreign direct investment (FDI) as reflected in national-level policy reforms to improve conditions for foreign investors such as for example easing or removal of restrictions on foreigners' acquisition of strategic assets, including land. While investments are important to the region, the concern with these 'land grabs' is that they have displaced smallholder farmers in some areas, an example being the case of a

TABLE 2.2 DOING BUSINESS RANKINGS.

	2009/2010	2010/2011	Change in rank
Angola	164	163	1
Botswana	50	52	-2
Congo, D.R.	179	175	4
Lesotho	137	138	-1
Madagascar	138	140	-2
Malawi	132	133	-1
Mauritius	20	20	0
Mozambique	130	126	4
Namibia	68	69	-1
Seychelles	92	95	-3
South Africa	32	34	-2
Swaziland	126	118	8
Tanzania	125	128	-3
Zambia	84	76	8
Zimbabwe	156	157	-1

Source: World Bank (2010c).
Notes: A low ranking means the regulatory environment is more conducive to the starting and operation of a business.

[10]More details on the methodology and rankings for Doing Business can be found on http://www.doingbusiness.org/

sugarcane plantation in Tanzania which displaced around a thousand farmers (Cotula et al. 2009). In such a situation, compensation is often poor. Yet, contracts involved between the governments and investors are often short and lacking in details, leaving the host governments with limited or no control over the contracts.

The 'land grab' phenomenon underscores the need for accompanying policies aimed at easing the process of doing business with regulatory policies that are hinged on an inclusive and transparent investment decisions making process. In particular, the fact that the host countries are usually poor and food insecure means that if not carefully monitored, 'land grab' deals can negate not only the countries' ability to meet CAADP, SADC RISDP, and MDG1 goals of poverty and hunger reduction, but will also derail their overall economic development process.

2.3 *Official Development Assistance (ODA)*

Trends in official development assistance (ODA) indicate the state of the external or international environment affecting agriculture. Table 2.3 illustrates the variations in total ODA per capita across SADC countries as well as over time. In general annual average percent changes in ODA remained negative across the four periods under consideration. The post-2003 period, i.e. 2003 to 2009 indicate negative annual average percent changes for all countries as well as the region as a whole. Seychelles recorded the biggest drop in this period, with an annual average percent change of -39.47% in the 2003-09 period. Yet, even with this drop, Seychelles recorded the second highest total ODA per capita (USD 158 million) in this period (note that Seychelles is the least populated country in the region), second to Zambia which had an annual average of around USD161 million of total ODA per capita.

Excluding South Africa from the regional aggregations does not significantly change the picture; although the realized annual average percentage change is slightly higher for 1995-03 (it is 4.43%). Comparing low and middle income countries suggests that for all periods under

TABLE 2.3 TOTAL ODA PER CAPITA, GROSS DISBURSEMENTS (2008 USD MILLIONS).

Region/Country	Annual average (1990-95)	Annual average % change (1990-95)	Annual average (1995-2003)	Annual average % change (1995-2003)	2003	Annual average (2003-09)	Annual average % change (2003-09)
Angola	46.93	6.10	42.97	-3.87	58.06	34.49	-27.71
Botswana	137.10	-12.99	66.81	-14.25	38.30	90.49	-7.23
Congo, D.R.	17.47	-32.14	24.34	38.48	72.70	45.41	-23.20
Lesotho	123.36	-6.27	67.54	-5.00	68.01	58.19	-6.87
Madagascar	54.45	-14.98	49.89	-1.62	61.95	75.36	-24.15
Malawi	77.41	-7.94	59.10	-1.06	53.53	87.88	-7.60
Mauritius	99.14	-15.53	74.62	-4.68	62.92	65.20	-21.38
Mozambique	133.92	-3.04	109.56	1.91	117.31	88.56	-7.64
Namibia	153.67	-2.22	140.43	-4.55	115.83	94.06	-8.45
Seychelles	516.30	-17.55	329.87	-8.94	173.76	157.90	-39.47
South Africa	6.25	9.90	17.30	4.01	18.45	18.03	-11.36
Swaziland	102.83	-1.90	59.74	-5.39	47.32	51.96	-6.21
Tanzania	64.88	-11.54	51.69	6.54	63.68	72.88	-7.20
Zambia	190.98	4.67	128.65	-1.53	140.35	160.81	-20.62
Zimbabwe	73.74	4.19	38.08	-12.95	22.57	28.95	-1.76
SADC	68.15	-6.40	48.23	3.29	62.11	57.58	-15.04
SADC excl. SA	68.15	-6.40	54.63	4.43	72.74	66.89	-15.49
SADC-MI	29.85	5.42	31.14	-2.06	33.39	28.35	-14.30
SADC-LI	66.74	-7.00	54.05	5.94	74.24	69.61	-15.41
SSA	58.89	-10.76	38.23	0.73	43.64	48.70	-10.34

Source: Authors' calculations based on OECD CRS (2010) and ODA and population data from the 2010 WDI (World Bank, 2010b).
Notes: ODA data not available for South Africa for 1990-92.

study, low income countries have higher annual average total ODA per capita, although they had a negative annual average percentage change (-7%) in 1990-95. In fact, it can be argued that the trend in total ODA per capita experienced by the low income countries is the one driving the overall SADC trends. These regional trends are mirrored by the trends in SSA. The decline in ODA between 2003 and 2009 could have been due to the economic recession that affected several major donor countries or organizations which include the United States of America (USA) and the European Union (EU).

The trends in agriculture share in total ODA and the emergency food aid share in total ODA are shown in Figure 2.10 and Figure 2.11 for middle and low income countries, respectively. Angola has the highest share of emergency food aid in total ODA among middle income countries and these had a downward trend between 2003 and 2003-09. Angola is driving the average shares observed in the entire middle income group.

Among low income countries, Zimbabwe is notable for its high and increasing annual average emergency food aid shares in total ODA (see Figure 2.11). The country's trends are driving the trends in the low income group. With the exception of Madagascar and Zimbabwe, the annual average agriculture share in total ODA increased for all countries between 2003 and 2003-09. These trends indicate renewed interest in the region's agriculture by external partners/donors, particularly in low income countries.

Thus, while total ODA per capita declined both at country and regional level in the period 2003-09, a mixed picture existed with respect to the share of agriculture ODA in total ODA as well as the share of emergency food aid in total ODA.

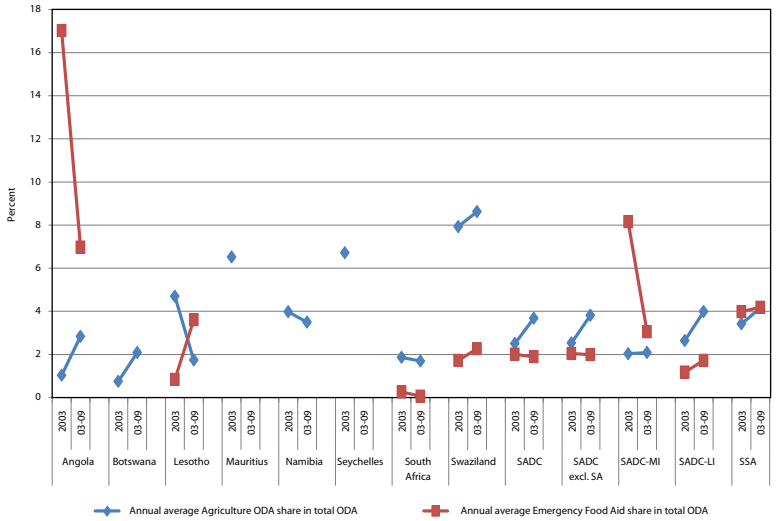


FIGURE 2.10 AGRICULTURE ODA AND EMERGENCY FOOD AID SHARE IN TOTAL ODA, MIDDLE INCOME COUNTRIES.

Source: Authors' calculations based on total ODA, agriculture ODA and emergency food aid data from OECD CRS (2010) and 2010 WDI (World Bank, 2010b).

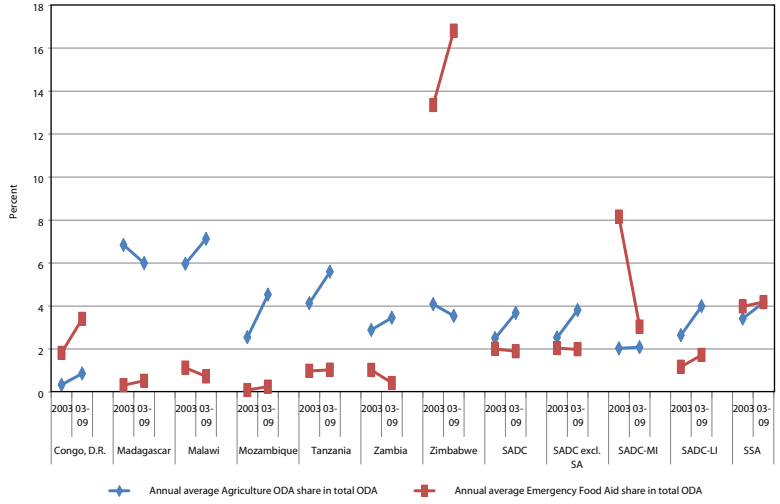


FIGURE 2.11 AGRICULTURE ODA AND EMERGENCY FOOD AID SHARE IN TOTAL ODA, LOW INCOME COUNTRIES.

Source: Authors' calculations based on total ODA, agriculture ODA and emergency food aid data from OECD CRS (2010) and 2010 WDI (World Bank, 2010b).

3. Progress in Implementation of CAADP

This chapter tracks the progress individual countries and the SADC region have made towards the implementation of CAADP.[11]

3.1 Implementing CAADP

Comprehensive Africa Agriculture Development Program (CAADP) is meant to be principally implemented at the country and regional level. By focusing on country level implementation, CAADP recognizes that there is no single road map that fits all countries. Implementation is, however, supposed to use a common set of tools and be based on mutual, peer and progress reviews at the continental, regional and national levels that are meant to guide country strategies and investment plans and ensure harmonized agricultural development efforts across the continent. The goal set for each country is a 6% average annual growth in the agriculture sector and an allocation of at least 10% of the national budgets to the sector. CAADP guides investments in agriculture across four thematic 'pillars' that serve as policy frameworks for national and regional programs.

[11]This is done for the period up to the 30th of June 2011.

Country implementation of CAADP follows a specific consultation process in a 'round table' format that leads to country and regional 'CAADP Compacts'. These Compacts outline country-specific policy reforms and guidelines for public and private investments and interventions required to achieve set targets. The Compact should reflect the individual countries' institutional and technical capacities and constraints. Prior to signing the Compacts, the country has to go through a set rigorous consultation process involving both governments and RECs. After signing the country Compact, the country then engages in elaboration of detailed investment plans which is followed by a series of review meetings that validate these plans, and comes up with a financing plan. An assessment of program execution is done which is then followed by actual execution.

3.2 Consultation Process and Compacts

The period between 2009 and early 2011 saw an accelerated country implementation of CAADP with a total of 26 countries having successfully signed their Compacts to date. With regards to Compact signing in the SADC region, the signing of the CAADP Compact by DRC on March 18, 2011 meant that it became the fifth SADC member state to do so. Zambia signed its CAADP Compact on January 18, 2011; Malawi on April 19, 2010, Tanzania on July 8, 2010 and Swaziland on March 4, 2010 (CAADP 2011). Figure 3.1 summarizes the steps that constitute CAADP implementation and also indicates where different SADC countries that have initiated the process are at the moment.

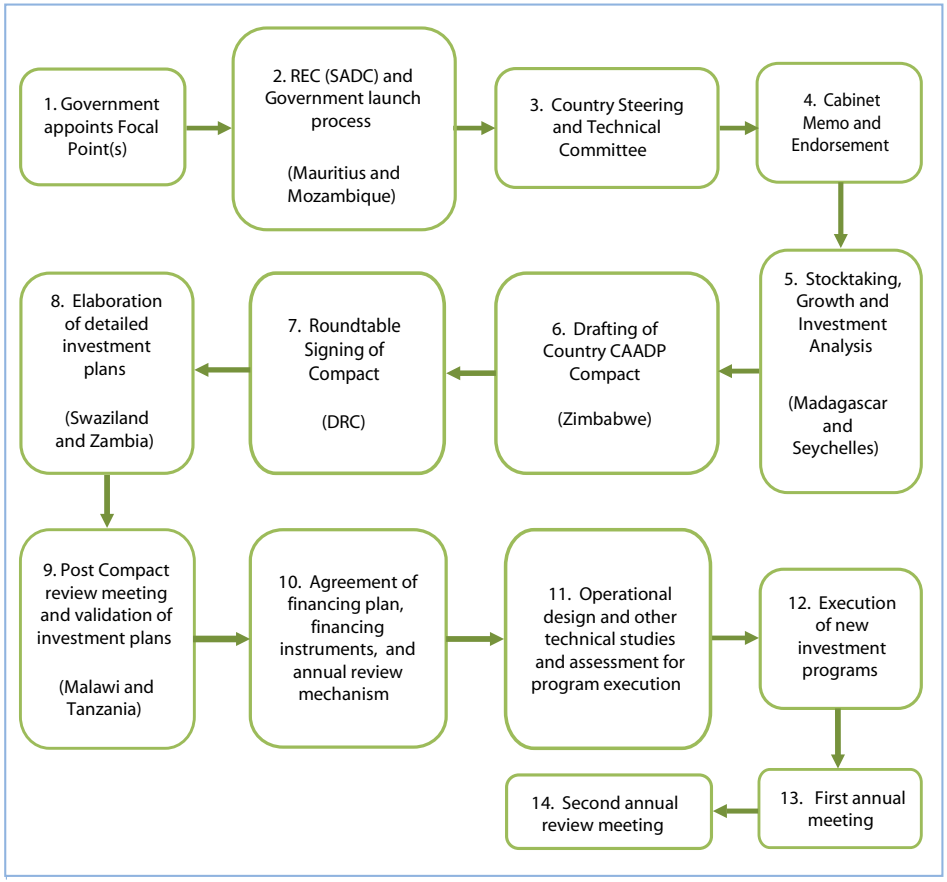


FIGURE 3.1 THE NATIONAL CAADP IMPLEMENTATION STEPS AND COUNTRY STATUS IN SADC.

Of the five countries that have signed their Compacts, four are low income countries (DRC, Malawi, Tanzania and Zambia) which suggests that the process of implementing has been particularly faster among low income countries where agriculture constitutes a big share of the economy and is vital for poverty and hunger reduction. Non-agriculture sectors remain more strategic than agriculture sectors to middle income governments (for example, oil in Angola and diamonds in Botswana).

Regarding the five countries that are not in Figure 3.1 (Angola, Botswana, Lesotho, Namibia and South Africa), the CAADP process had not officially started at the time of writing this report (as of June 30, 2011) and it was not clear when it will begin.

4. Agriculture Expenditures

This section tracks the progress individual countries have made towards meeting the Maputo Declaration of 2003 of allocating at least 10% of national budgets to the agricultural sector. Increasing investments in agriculture has been shown to be vital to enhancing the sector's contribution to socioeconomic development (World Bank 2007). Monitoring the level and type of agriculture investments is crucial not only for assessing how countries are achieving their regionally shared goals and targets, but also for informing policy makers on possible ways of allocating agricultural budgets among different competing sub-sectors in agriculture.

This section starts by giving a region-wide overview of trends in agriculture expenditures as a share of total expenditures over the period 2004-2007 for 12 countries for which data were available. It then proceeds to focus on Mozambique that had relatively comprehensive agriculture budget allocation and expenditure data. An overview of the trends in domestic private and foreign direct investment in the region is also provided.

4.1 *Maputo Declaration 10% Agriculture Expenditure Target*

The annual average share of agriculture expenditures in total expenditures are presented in Figure 4.1. The values for the region and economic groups are based on weighted sums in which the country's share of AgGDP in total regional AgGDP is used as weights. Figure 4.1 shows relatively variable expenditures in agriculture among SADC countries between 2004 and 2007, with the share of agriculture expenditures in total increasing, on average, for some countries (for example, Malawi) and clearly decreasing for others (for example, Zimbabwe).

The SADC region as a whole consistently failed to meet the Maputo Declaration target, averaging 3.6, 3.6, 3.7 and 3.3% in the years 2004, 2005, 2006 and 2007, respectively. These shares were consistently below the average recorded for SSA as a whole. Low income countries have higher shares of agriculture expenditures in total than middle income countries which could also be driven by the fact that agriculture is, on average, more important in terms of its contribution to GDP in low income than in middle income countries.

On average, only Zimbabwe, with 11.3% of total expenditures spent on the agriculture sector, had agriculture expenditures constituting more than 10% of total public expenditures. The high share of agriculture expenditures in total expenditures could be partly due to the implementation of the Fast Track Land Reform Program which was launched in 2000 and was funded primarily by the government. The share of agriculture expenditures in total expenditures, however, declined to 10% in 2005, further declining to 6.2 in 2006 and 6% in 2007. This decline could be reflecting the economic decline the country experienced, particularly following the launch of the accelerated Land Reform Program, in 2000. This increased competition for resources at the disposal of the government and to be spent not only on agriculture but on other sectors as well.

Malawi managed to reach the 10% target for the years 2005, 2006 and 2007. These increases could be capturing the increased subsidies the government had been giving farmers.

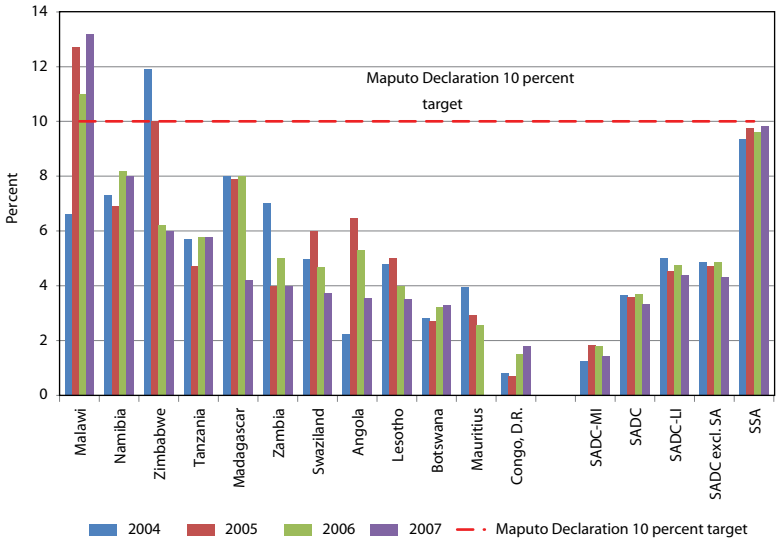


FIGURE 4.1 AGRICULTURE EXPENDITURES AS A PERCENTAGE OF TOTAL EXPENDITURES (2004-07).
Source: SADC (2008d).

Implemented from around 2005-06, the Government of Malawi's Agricultural Inputs Subsidy Program provides targeted poor rural households or small-holder farmers with coupons to buy fertilizer and seed at a rate far below the market price. The program also involved increased government investment in agriculture training programs. The aim of the program was to boost its agricultural production and to enhance food security in the country.

None of the other countries managed to meet the 10% Maputo Declaration target in any of the years. In fact, considering the annual average share of agriculture expenditures in total expenditures indicates that only Malawi had an annual average share of agriculture expenditures in total expenditures that reached the 10% target (10.9 %) between 2004 and 2007.

4.2 Agriculture Expenditure Trends in Mozambique

Trends in the Government of Mozambique's budget allocation to and expenditure in the agriculture sectors, in metical (MZM) between 2001 and 2009 are indicated in Table 4.1. The values are in constant 2003 prices.

In general, although the total national budget has been increasing over time, the absolute budget accruing to the agriculture sector has been rather variable, experiencing a decrease between 2004 and 2005 as well between 2007 and 2008. According to Zavale et al. 2011, the reduction in budget allocation between 2004 and 2005 could be capturing policy changes associated with the coming into office of a new government. The decline in budget allocation to agriculture experienced between 2007 and 2008 could be explained by the winding up of irrigation projects between this period, for example, the rehabilitation of Massingir Dam and Chokwe Irrigation Scheme. The actual spending on agriculture, on the other hand, experienced a decline between 2005 and 2008 which is associated with reduced budget allocation.

TABLE 4.1 AGRICULTURE REAL BUDGET ALLOCATION AND EXPENDITURE IN MOZAMBIQUE (MILLION MZN).

Year	Budget allocation		Expenditure	
	Total budget	Agriculture allocation	Total expenditure	Agriculture expenditure
2001	27,076	1,192	27,076	516
2002	29,822	1,610	29,821	1,779
2003	29,213	3,106	29,213	1,635
2004	28,607	3,287	28,607	2,333
2005	34,204	2,528	34,204	3,061
2006	36,931	2,851	36,939	2,806
2007	43,338	4,860	43,337	2,799
2008	59,852	2,163	46,868	1,525
2009	62,626	2,597	54,161	1,871
Annual average (2001-03)	28,704	1,969	28,703	1,310
Annual average (2003-09)	42,110	3,056	39,047	2,290

Source: Authors' calculations based on Mozambique's National Accounts from the Ministry of Finance (2001-2007) and Ministry of Agriculture (MINAG) (2008-2009).

In Figure 4.2, the shares of agriculture budget in total budget as well as the share of agriculture expenditure in total expenditure are presented. The figure, in line with the budget and expenditure levels reported in Table 4.1, between 2001 and 2009, the highest share of agriculture budget in total budget was recorded in 2004 (11.5%), although this was close to the share recorded in 2007 (11.2%). In terms of achieving the Maputo Declaration target of allocating 10% of total national budget to agriculture, Figure 4.2 shows that Mozambique was able to reach this target in 2003, 2004 and 2007. The annual average share for the period 2003-09, however, fell short of the target, on average, by 2%. As a percentage of total expenditure, agriculture expenditures remained below 10% throughout the 2001-09 period, ranging between 1.9% in 2001 to 8.9% in 2005.

Based on Table 4.1, Figure 4.3 illustrates the deviation between actual agriculture expenditure and budget allocated to the sector. The figure highlights the tendency for actual expenditures to fall short of budget allocations. For instance, in 2001 only 43% of the total budget allocated to agriculture was actually spent in the sector while in 2007 the allocation was 58%. In 2002 and 2005, however, more was spent on agriculture than had been allocated to the sector. This could imply additional funds were injected into the agriculture sector by the government and/or development partners and not registered in the agricultural budget allocation. In 2002 in particular, the government introduced subsidies or more funds to the sector as part of humanitarian relief efforts following severe floods in 2000 and 2001.

The average execution rate in the entire agriculture sector was around 78% between 2003 and 2009. Zavale et al. 2011 argues that these shortfalls could be due to the inability of donors to keep their promises, imperfect projections on government tax collections, underreporting of actual spending channeled through externally supported funds and capacity to spend released funds.

Table 4.2 illustrates the composition (possible investment options) of agriculture investment expenditure in Mozambique. For each core government function, the table reports the level of investment expenditure by the Ministry of Agriculture (MINAG) between 2001

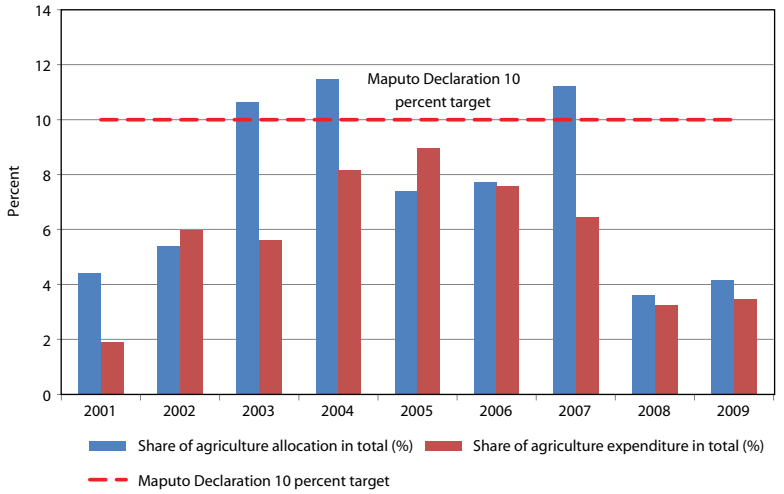


FIGURE 4.2 MOZAMBIQUE AGRICULTURE BUDGET AND EXPENDITURE SHARES IN TOTAL (2001-09).

Source: Authors' calculations based on Mozambique's National Accounts from the Ministry of Finance (2001-2007) and Ministry of Agriculture (MINAG) (2008-2009).

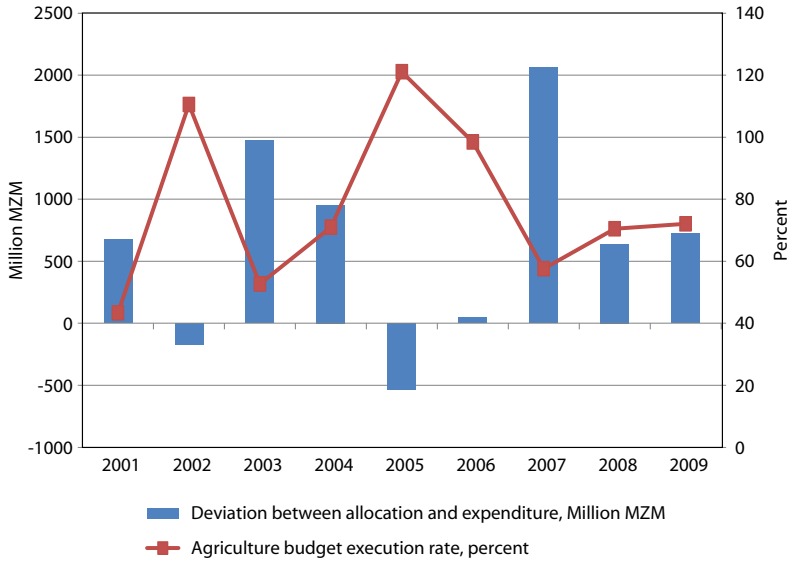


FIGURE 4.3 AGRICULTURE BUDGET EXECUTION RATES IN MOZAMBIQUE (2001-09).

Source: Authors' calculations based on Mozambique's National Accounts from the Ministry of Finance (2001-2007) and Ministry of Agriculture (MINAG) (2008-2009).

and 2009. Table 4.3, on the other hand, shows the average levels of investment in each function for the 2001-09 period as well as the average annual growth rate in the level of investments. In addition, Table 4.3 presents the coefficient of variation associated with investment levels for each core function for the 2001-09 period. The coefficient of variation is a normalized measure of variability or dispersion of investment levels and is computed as the ratio of standard deviation (the square root of variance of investment levels) and average investment level. The coefficient of variation is a dimensionless number, which increases with the extent to which investment levels are further from the average level observed between 2001 and 2009.

On average, besides common expenses, the highest investment spending between 2001 and 2009 was in production support (MZN 168 million per year) followed by institutional support at (MZN 160 million per year). The least investment spending, on average, was in irrigation. The measure of variability demonstrates high variability in investment spending by MINAG between 2001 and 2009. The function for which investment spending was the most variable is livestock services (142%) followed by production support (120%), irrigation (108%) and forestry (102%). Spending on institutional support was the least variable with a coefficient of variation of 44%. Such variability in investment expenditure is of concern since it implies the country is not consistently accumulating capital to be able to raise and sustain growth in agricultural output. This revealed variability could be a source of variability in agricultural productivity and production.

Average annual growth rates presented in Table 4.3 indicate that investment expenditure on irrigation experienced the biggest decline of 1.4% per annum between 2001 and 2009. Investment expenditures in production support grew the fastest, at an average of around 20% per annum. Also experiencing double digit growth rates was investment expenditure in livestock services (19%) and Forestry (13%).

In terms of investments that support growth in agricultural output, investments in agricultural research and extension have been shown in empirical literature to give the highest returns of any form of agricultural spending particularly in SSA (World Bank 2007).

TABLE 4.2 AGRICULTURE INVESTMENT EXPENDITURE BY CORE GOVERNMENT FUNCTION IN MOZAMBIQUE (MILLION MZN) (2001-09).

Core function	2001	2002	2003	2004	2005	2006	2007	2008	2009
Extension	10.60	17.93	20.26	17.36	41.53	71.04	87.85	30.74	38.27
Research	33.22	45.92	30.69	71.84	121.01	113.94	97.04	105.52	177.79
Production support	14.18	35.01	31.38	30.01	71.34	135.21	169.09	502.63	523.53
Land rights and management	18.75	30.23	27.36	16.15	16.21	43.85	17.09	0.00	0.00
Irrigation	10.01	11.76	13.74	6.73	5.57	34.80	4.82	0.00	0.00
Livestock services	4.44	8.09	5.68	6.02	10.09	79.20	47.50	34.41	191.34
Forestry	13.72	7.21	7.66	8.87	9.31	19.96	28.75	73.65	76.16
Institutional support	72.48	180.95	320.65	183.36	115.43	165.17	147.88	146.70	104.99
Common expenses (and non-planned activities)	147.46	312.86	396.43	354.07	336.87	323.09	354.35	591.81	827.82
Total investment expenditure	324.85	649.96	853.86	694.39	727.36	986.26	954.38	1,485.45	1,939.90

Source: MINAG/Directorate of Administration and Finance, Mozambique (2001-09).

For example, Alene and Coulibaly (2009) find an aggregate rate of return of agricultural research in sub-Saharan Africa to be 55% while it was found to be 54% for Mozambique. Alston et al. (2000) conducted a meta-analysis of rate of return studies on agricultural research and extension studies and found an average rate of 35% for SSA. They argue that returns from investing in agricultural returns, like any type of investment, depend on the country's farming systems and dependence on rain-fed production. This evidence, thus, suggest that positive annual growth in extension and research in Mozambique between 2001 and 2009 should be upheld.

Of concern is the negative annual growth in irrigation investment expenditure given that some parts of Mozambique are prone to droughts and thus irrigation would significantly contribute to improve agricultural productivity. Heavy reliance on rain-fed agriculture under such conditions results in erratic agricultural output and threatens efforts to improve food security.

4.3 Domestic Private Sector Investment in Agriculture

Historical data on domestic private and foreign direct investments in SSA countries are very limited, particularly data that are disaggregated by sector. Lack of data on domestic private investments is partly due to underdeveloped information and data management systems, the scale of operations of agribusiness operations with a significant proportion of businesses being small- to medium-scale producers and enterprises. In addition, a big proportion of businesses tends to be informal and as a result is often not captured in national statistics.

Data on commercial bank lending to the agricultural sector in four SADC countries — Botswana, Malawi, Mozambique and Tanzania— are used to give an overview of the extent of domestic private sector investments in the agriculture sector. Though an imperfect measure given that it does not capture the informal agribusiness sector, commercial bank lending to agriculture is generally used to proxy domestic private agribusiness investment. Data are taken from Mhlanga (2010) and are based on annual statistical bulletins data from central banks in these countries. Figure 4.4 demonstrates how the share of lending

TABLE 4.3 AVERAGE, VARIATION AND GROWTH OF AGRICULTURE INVESTMENT EXPENDITURE BY CORE GOVERNMENT FUNCTION IN MOZAMBIQUE (MILLION MZN) (2001-09).

	Average, Million MZM (2001-09)	Coefficient of variation (%) (2001-09)	Average annual growth (%/yr) (2001-09)
Extension	37.29	70.53	8.03
Research	88.55	54.35	8.66
Production support	168.04	120.47	19.76
Land rights and management	18.85	73.97	-0.09
Irrigation	9.71	108.49	-1.43
Livestock services	42.97	142.40	18.98
Forestry	27.25	102.38	12.51
Institutional support	159.73	44.17	-0.58
Common expenses (and non-planned activities)	404.97	48.22	6.15
Total investment expenditure	957.38	50.53	7.38

Source: Authors' calculations based on MINAG/Directorate of Administration and Finance, Mozambique (2001-09).

to agriculture relative to total credit from commercial banks in these countries has been varying between 1995 and 2008.

The revealed trend indicates that private sector agribusiness investment in these countries, though fluctuating across the years, constitutes a low proportion of total lending by commercial banks to agribusinesses. For in instance, only 0.68% of total commercial bank lending in Botswana went to the agriculture sector in 2008 and this was 14.6% in Malawi, 8.05% in Mozambique and 12.35% in Tanzania. Computation of the annual average between 2003 and 2008 suggests that on average commercial banks in Botswana lent 1.1% of their total lending portfolio to agriculture, and this was 13.1% in Malawi, 9.3% in Mozambique and 12.6% in Tanzania. The relative rise in credit to agriculture in Malawi could be attributed to the fertilizer and seed subsidy programs. The low average private sector investment in agriculture in Botswana is consistent with the fact that credit to the agriculture sector in Botswana has never gone beyond 2% of total credit (Mhlanga 2010).

Figure 4.5 shows how commercial lending to the agriculture sector (comprehensively defined to include crops, livestock, forestry and fisheries) compared to lending to other sectors in 2008. It indicates that commercial banks in Botswana spent the least share of their total portfolio on the agriculture sector while in Malawi, the least share went to 'mining and quarrying' (0.11%), in Mozambique it went to 'building and construction' (4.25%) and in Tanzania it went to 'mining and quarrying' (0.86%).

In illustrating trends in private sector agribusiness investment in SSA, Mhlanga (2010) finds that private investments in the agriculture sector are mainly concentrated in high-value crops and non-traditional products such as cut flowers destined for markets in industrialized countries.

4.4 Foreign Direct Investment in Agriculture

The 2009 World Investment Report (UNCTAD, 2009) highlights the importance of foreign direct investment (FDI) in fostering agricultural production and development particularly

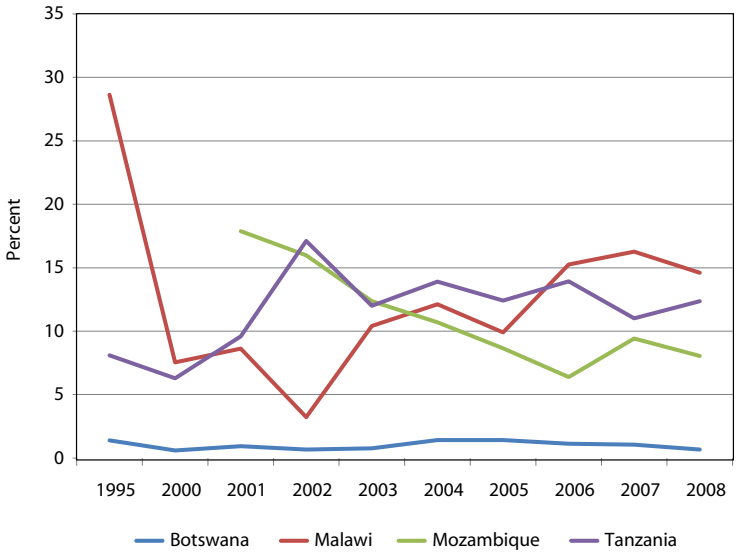


FIGURE 4.4 COMMERCIAL BANK LENDING TO AGRICULTURE IN SELECTED COUNTRIES (PERCENTAGE OF TOTAL LENDING) (1995-2008).
Source: Mhlanga (2010).

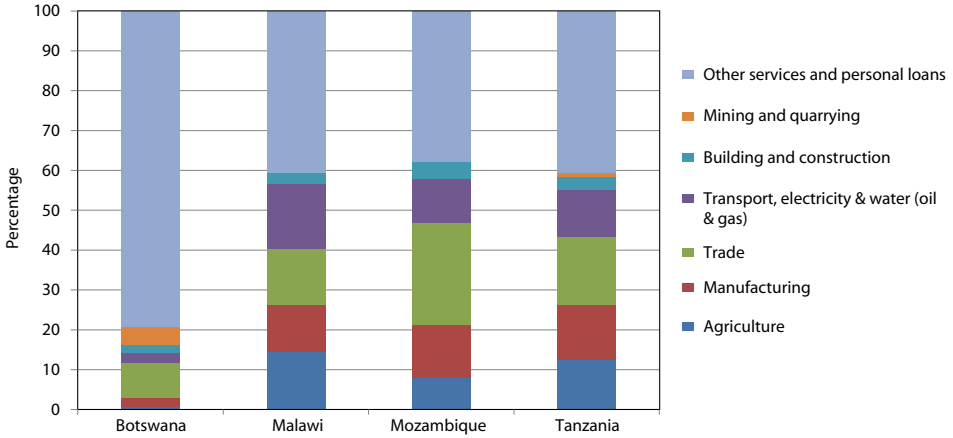


FIGURE 4.5 COMMERCIAL BANK LENDING BY SECTOR IN SELECTED COUNTRIES (2008).
Source: Mhlanga (2010).

in SSA economies. FDI can be defined broadly as investment that is made to serve the business interests of the investor in an enterprise which is in a country that is different from the investor's country of origin. The report argues that the policy reforms adopted by several African countries have managed to create an environment that is more conducive to FDI, resulting in an increase in FDI inflows in 2008. The record rise in FDI inflows to the region in 2008 was partly due to good returns on investment following high commodity prices. FDI flows to the agriculture sector are, however, revealed to be limited with world inward FDI stock in agriculture constituting only 0.2% of total inward FDI stock in 2007 (UNCTAD, 2009). FDI flows to agriculture sector could partly be constrained by the regulatory environment affecting the sector which often places restrictions on ownership of agricultural land by foreigners.

Table 4.4 reports the respective shares in agricultural FDI flows and stocks in total FDI flows and stocks for selected SADC countries. Inward FDI flow is the flow of capital into the host country in a given year while inward FDI stock is the value of the capital and reserves (including retained profits) in the host country attributable to an investor resident in a different country. The table suggests that the significance of FDI in agriculture varies across countries. South Africa recorded a decline in the share of agriculture FDI stocks in total FDI stocks in from 0.3% in 2002 to 0.1% in 2007. Also experiencing a decline in the share of agriculture FDI stock in total FDI stocks between 2002 and 2007 was Madagascar (it declined from 4.5 to 0.8%), and Malawi (it decline slightly from 13.3 to 13.1%). Swaziland, Tanzania and Zambia however, experienced increases.

Also of interest in terms of FDI is the growth in agricultural land investments by rich land- and water- constrained countries in SSA and the SADC region in particular. Under this phenomenon, which has sometimes been termed 'land grabbing' (Cotula et al. 2009) rich countries buy or announce the intention to buy or lease huge strips of land in the region driven primarily by the investor countries' need to ensure their long-term food and bio-fuel supply and agro-climatic conditions in host countries. While traditionally, agricultural land investment in SSA has been dominated by Western countries and transnational

TABLE 4.4 INWARD FDI IN AGRICULTURE, FORESTRY AND FISHING IN SELECTED COUNTRIES (PERCENTAGE SHARE IN TOTAL).

	Flows		Stock	
	2002-04	2005-07	2002	2007
Madagascar		1.7	4.5	0.8
Malawi			13.3	13.1
Mauritius	10.5	0.3		
Mozambique	6.7	9.4		
Namibia			3.2	3.2
South Africa			0.3	0.1
Swaziland			15.4	16.2
Tanzania	9.4	9.4	6.2	6.7
Zambia			6.8	11.7

Source: UNCTAD (2009).

companies (TNCs), the current or 'new' investors (in addition to Western countries and companies who are still investing mainly for bio-fuel production or investment purposes) are predominantly oil-rich but food-insecure Gulf States like Saudi Arabia, Qatar and the United Arab Emirates and populous but capital strong Asian countries such as China, South Korea and India (von Braun and Meinzen-Dick 2009). Also involved in agricultural land investments are private domestic investors. A collaborative study between the International Institute for Environment and Development (IIED), FAO and the International Fund for Agricultural Development (IFAD) found that private domestic investors accounted for most agricultural projects. The agricultural projects by private domestic investors covered a total of 362,000 ha for a value of USD54 million, compared with 240,000 ha for a value of USD24 million for FDI (Cotula et al. 2009).

The growing number of agricultural land purchases can be attributed to the policy reforms in host countries which have made it attractive for FDI in agricultural land. Availability of under-utilized land (and low-cost labor to work on this land) in land-rich SSA countries makes it attractive for FDI in agricultural land. Moreover, by drawing attention to the vulnerability of the global food supply, the recent food crisis enhanced the growing interest in agricultural land investments (Cotula et al. 2009). In addition, high oil prices in 2007 and 2008 strengthened the case for diversification of the energy sector for energy security reasons, making the cultivation of biofuels a direct competitor to food production on existing cropland and consequently another driver of the international land deals. Thus the increasing food demand and scarcity of arable land and water in most parts of the world creates the expectation that arable land values will rise and this contributed to speculative agricultural land deals (von Braun and Meinzen-Dick 2009).[12]

Arguments in favor of land deals often hinge on the increased infrastructural developments that these deals are supposed to accompany in the host countries. Given that host countries are often poor, these developments are seen as vital for overall socioeconomic development and thus an incentive for host countries to sign these land deals. In addition, land investments with proper design could contribute to the host country's revenue generation, job creation, development of rural infrastructure, increased food security and spillover effects in terms of transfer of agricultural technologies and practices.

Agricultural land investments have, however, been surrounded with controversy. The main criticism is that many of them focus on cultivation of biofuels, and give investors the full export rights to the production. This raises the question of whether it is appropriate to allow foreign nations to buy large hectares of land to secure their own food security while the host countries themselves remain food insecure. As a result, land deals are perceived as a threat to local food security.

Also of concern are the possible environmental impacts of the investments. The clearing of land to make way for (biofuel) farming can cause deforestation and lead to reduction of biodiversity. The social cost could also be great, especially if local communities are evicted to make way for foreign investors, or if agricultural land is used for biofuel production at the expense of food production.

[12]For discussions on the motivation for and the scale of land grabbing in the SADC region see for example, Burgis ((2009) cited in Cotula, et al., 2009), Kachika (2009), Reuters ((2008) cited in Cotula, et al., 2009).

5. Agricultural Growth Performance

This chapter seeks to track the region's progress in terms of agricultural productivity growth. It also considers possible sources of growth, with particular attention to the productivity of land and labor and the use of chemical fertilizers.

5.1 Contribution of Agriculture to Total GDP

In order to highlight the significance of the agricultural sector in the region, the section begins by presenting each country's contribution to regional agriculture value added (which is agriculture GDP, AgGDP) based on its annual average AgGDP between 1990 and 1995 and between 2003 and 2009 as seen in Figure 5.1 (the actual AgGDP figures are presented in Table C.1 in the Annex). This is followed by a presentation of the country and regional statistics on the share of agriculture value added as a percentage of GDP which is indicative of the size of the sector.

Comparing the 2003-09 statistics to those for 1990-95 reveals changing dynamics with regards to the size of countries' agricultural economies relative to the whole region. For instance, South Africa moved from being the largest agricultural economy in 1990-95 to being the second largest in 2003-09. It accounted for 26% of the regional agricultural economy in 1990-95 and this dropped to 24% in 2003-09. With an annual average AgGDP of close to USD 5 billion between 2003 and 2009, Tanzania is shown to have been the largest agricultural economy in the region in 2003-09, contributing around 26% to total

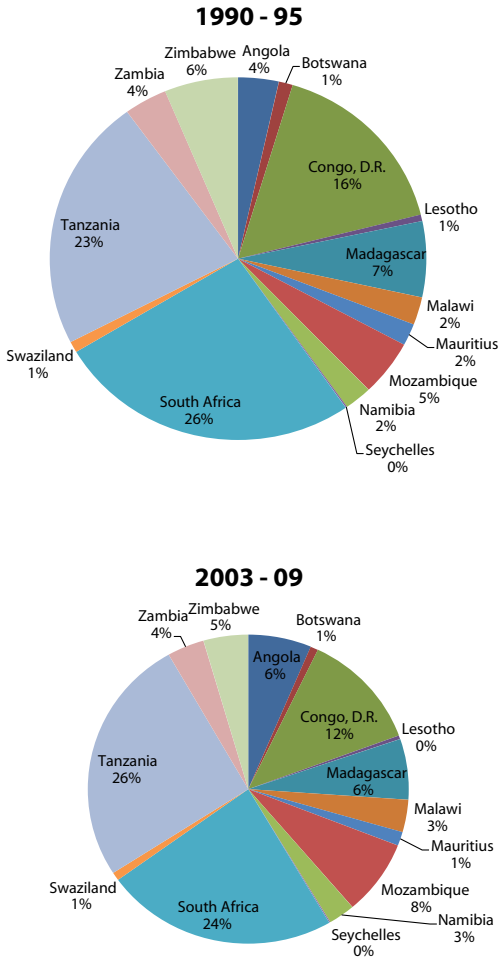


FIGURE 5.1 NATIONAL SHARES IN TOTAL AgGDP IN THE SADC REGION (1990-95 AND 2003-09).
Source: Authors' calculations based on AgGDP data from the 2010 WDI (World Bank, 2010b).

regional AgGDP. This indicates growth in the size of the agriculture economy in Tanzania given that it contributed 23% to the regional total in 1990-95. The DRC maintained its position as the third largest agricultural economy in the region, contributing 12% to the total SADC AgGDP in 2003-09. The country with the least growth in agricultural economy in the region is Seychelles, contributing less than one percent in both periods.

In fact, as shown in Figure 5.2 the gap between AgGDP and GDP in the region has been widening in the last decades implying that other sectors such as industry and services are gaining increasing importance as sources of growth in the region while the potential for the agricultural sector to contribute to overall economic growth and subsequently to poverty and hunger reduction goes untapped.

The contribution of agriculture to total GDP is presented in Figure 5.3. The importance of agriculture to the overall economy is seen to decline with income: it is higher in the economies of low income countries compared to the middle income group. Specifically, based on the AgGDP shares in 2003-09, Figure 5.3 shows that the top seven countries in terms of shares were all low income countries. Tanzania not only has the largest agricultural economy in the region (see Figure 5.1), but also the contribution made by the agriculture sector to the country's GDP is the largest in the region (around 45% in 2003-09). Similarly, for the rest of the low income countries, agriculture contributes at least 15% to their respective GDPs. Botswana had the lowest contribution of 2.1%, while Seychelles had the second lowest with agriculture contributing close to 2.4% of the GDP.

These trends, which reveal a decline in the share of AgGDP in total GDP as the income status of the country improves, are in line with theoretical and empirical literature that has demonstrated that the importance of agriculture in total GDP is closely related to the country's stage of development, with economic development being inversely related to the share of agriculture in total GDP. These trends are also confirmed at regional level (see Figure 5.4) where the share of agriculture in total GDP has been consistently higher (at least six times higher) across all periods in the low income group than in the middle income group. Between 2003 and 2009, for instance, while agriculture accounted for close to 4% of the GDP of middle

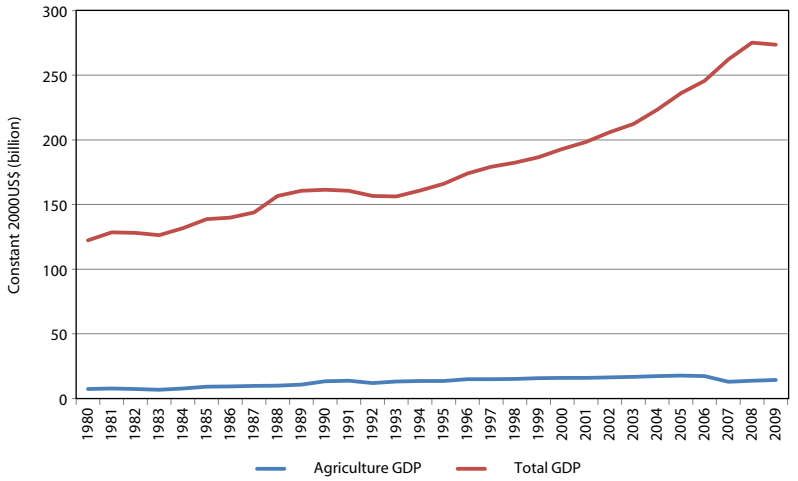


FIGURE 5.2 THE GAP BETWEEn AgGDP AND TOTAL GDP IN THE SADC REGION.
Source: Authors' calculations based on GDP and AgGDP data from the 2010 WDI (World Bank, 2010b).

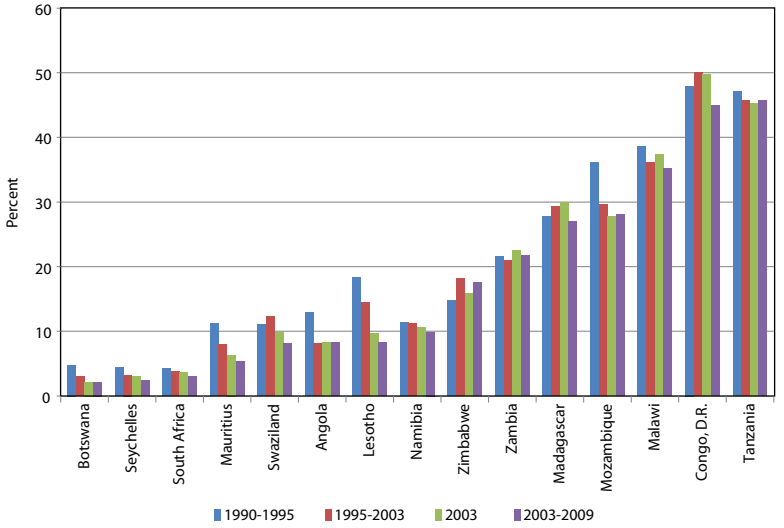


FIGURE 5.3 AGRICULTURE VALUE ADDED AS A PERCENTAGE OF GDP, COUNTRY LEVEL.
Source: Authors' calculations based on GDP and AgGDP data from the 2010 WDI (World Bank, 2010b).

income countries, the contribution to GDP was 28% for low income countries. Figure 5.4 also indicates that excluding South Africa from the SADC group raises the annual average share of AgGDP in total GDP. It also reveals that SADC has lower agriculture share in total GDP than SSA while, however, excluding South Africa reverses the picture: SADC (without South Africa) has higher shares of agriculture in total GDP than the average for the whole of SSA. Given that South Africa is the region's biggest economy, these trends also support the view that AgGDP shares in total GDP decline with income levels.

The revealed importance of agricultural GDP in total GDP particularly among low income countries is of significant policy considerations. First, it suggests that the mere size of the agriculture sector in these countries places the sector at the center of overall economic growth and poverty reduction in these countries. Second, the fact that these are low income countries indicates that policies to foster agricultural growth should take into consideration the resource constraints that these countries might face.

It is noted that there is a declining trend in the share of agriculture in total GDP across all periods for the majority of countries; both in the middle and low income groups and in the region as a whole (see Figure 5.4).

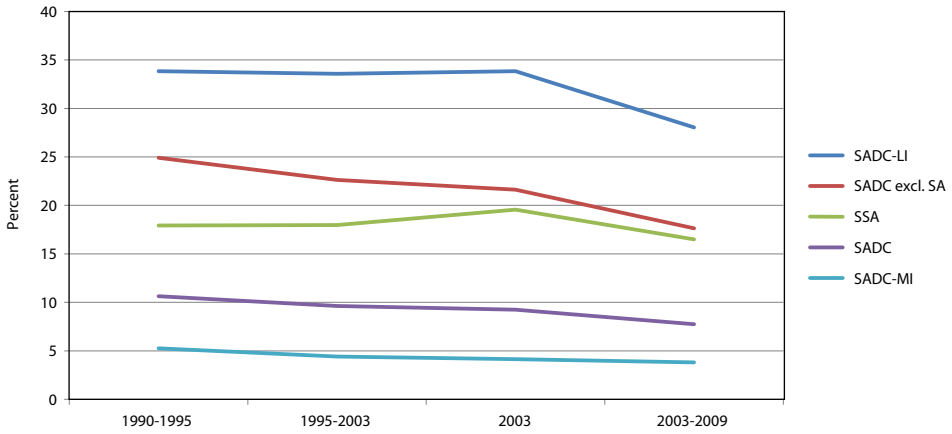


FIGURE 5.4 AGRICULTURE VALUE ADDED AS A PERCENTAGE OF GDP, REGIONAL LEVEL.
Source: Authors' calculations based on GDP and AgGDP data from the 2010 WDI (World Bank, 2010b).

5.2 *Agricultural Productivity and Production*

This report uses trends in land and labor productivity measures as proxies for the level of agricultural productivity and modernity of agriculture in the region. These are partial productivity measures that indicate the amount of agricultural output per unit of input where land productivity will be an indicator of agricultural output per unit of land (per hectare to be precise) and labor productivity is the output per economically active persons in the country. Statistics on land and labor productivity are reported in Figure 5.5 for middle income countries and Figure 5.6 for low income countries.

Among middle income countries and in the region as a whole, Mauritius and Seychelles have relatively high land productivity across all four periods. Between 2003 and 2009 in

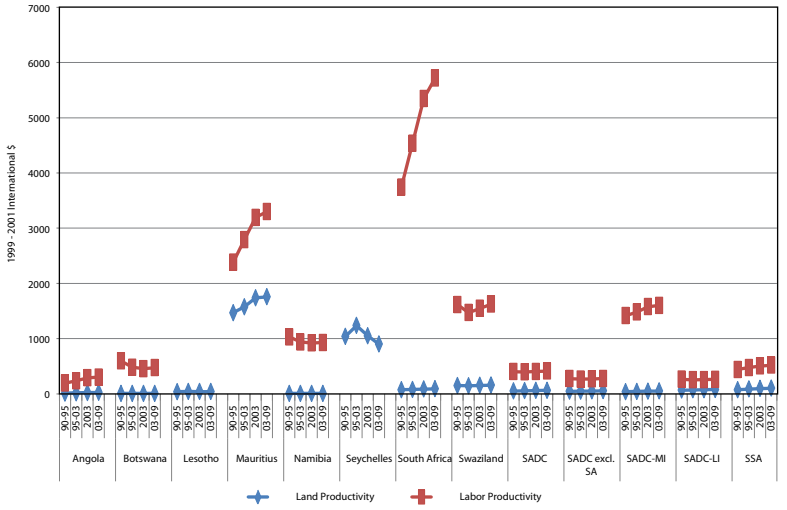


FIGURE 5.5 LAND AND LABOR PRODUCTIVITY, MIDDLE INCOME COUNTRIES.
Source: Authors' calculations based on 2010 FAOSTAT (FAO, 2010)
Notes: Data for land productivity is available up to 2008 while for labor productivity it is available up to 2006. Labor productivity data were not available for Lesotho and Seychelles.

Mauritius, each hectare harvested yielded I$1,756 worth of agricultural production while Seychelles had the second highest land productivity of I$900.[13] These two countries also happen to be the smallest countries in the region (Seychelles is the smallest while Mauritius is the second smallest), in terms of land area and population, and are two of only three islands in the region. A combination of these factors could be driving land productivity levels in these countries. Botswana, on the other hand, consistently registered the least land productivity in the middle income group (and in the whole region).

With regards to labor productivity, South Africa had high annual average labor productivity relative to the rest of the countries, rising from I$3,741 between 1990 and 1995 to I$5,716 between 2003 and 2009. Labor productivity is seen in Figure 5.5 to have been increasing for the middle income group as a whole across all periods.

For the low income group, Malawi consistently recorded the highest land productivity while Mozambique, on the other hand, consistently had the lowest across all periods. As a group, low income countries have, like the middle income group, been experiencing increasing land productivity across the four periods. In terms of labor productivity, Zimbabwe consistently recorded the highest productivity among the low income countries across all periods. Again Mozambique registered the lowest labor productivity across the four periods. As a group and compared to middle income countries, low income countries exhibit relatively variable labor productivity levels.

In all countries –middle and low income– labor productivity is revealed to be higher than land productivity (the exception is Malawi for which land and labor productivity seems to be tracking fairly close to each other). This is the case for all time periods and also holds for the region as well as SSA. Middle income countries in particular, have a wide gap between labor and land productivity, even higher than that revealed for SSA. Taking a regional perspective indicates that SADC had consistently lower land and labor productivity than SSA. The differences in productivity in general and land productivity in particular across

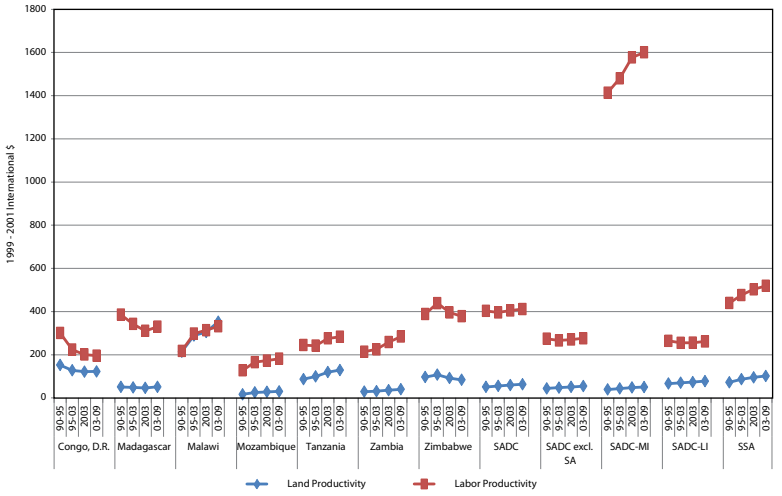


FIGURE 5.6 LAND AND LABOR PRODUCTIVITY, LOW INCOME COUNTRIES.
Source: Authors' calculations based on 2010 FAOSTAT (FAO, 2010).
Notes: In Malawi land and labor productivity seems to be tracking fairly close to each other.

[13] I$ refers to International dollars. An international dollar has the same purchasing power as the US$ dollar has in the United States. Purchasing power parity (PPP) exchange rates are used to convert costs in local currency units to international dollars. A PPP exchange rate is the number of units of a country's currency required to buy the same amounts of commodities in the domestic market as U.S. dollar would buy in the United States.

SADC countries could be capturing the diversity of the biophysical environment with respect to agro-ecology and climate in the region. These factors determine the agronomic potential of crop production and subsequently the prevailing farming systems in the region (see Figure 5.7). These differences in agro-ecological factors and subsequently in farming systems, coupled with differences in resources endowments which determine the ability to adopt productivity-enhancing technologies, could partly explain the differences in land productivity across the region.

5.2.1 Crop Production

Different countries arguably have different potentials in the production of different crops or animals. To account for differences in agricultural potential Figure 5.8 presents countries' annual average shares in total production of key crops in the region between 2003 and 2009 (the actual production levels are presented in Table C.5 in the Annex). South Africa is revealed to dominate the regional production of total cereals, maize and wheat, accounting for 40, 45 and 81% of the regional total, respectively. Tanzania tops banana, millet and sweet potato production in the region, accounting for 60, 40 and 30% of total regional production, respectively. With respect to potato production, Malawi produces 40% of the regional total while South Africa produces 32%. Madagascar dominates rice production, contributing 64% to total rice production. The DRC tops cassava, groundnuts and roots and tubers production with shares of 36, 28 and 29%, respectively, in total regional production. Zimbabwe dominates sorghum production, contributing 50% to the regional total followed by Swaziland at 27%.

5.2.2 Livestock Production

Figure 5.9 presents each country's annual average contribution to the regional production of major livestock (taken to be cattle, goats, pigs and sheep) between 2003 and 2009. The actual production levels are presented in Table C.6 in the Annex. While South Africa is shown to dominate cattle meat production, accounting for 48% of the regional total, it is

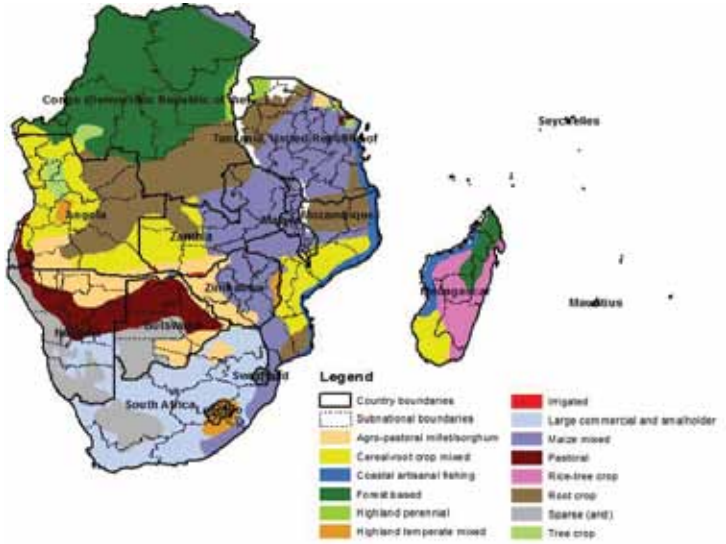


FIGURE 5.7 DOMINANT FARMING SYSTEMS IN THE SADC REGION.
Source: Based on Dixon et al. (2001).

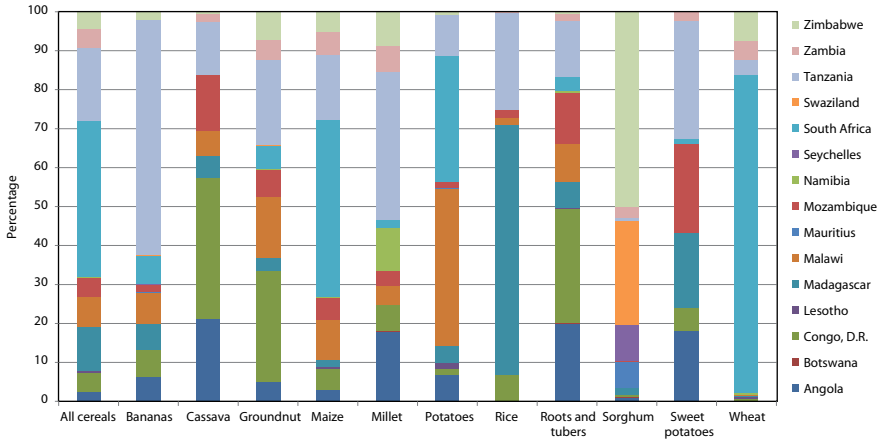


FIGURE 5.8 NATIONAL SHARES IN TOTAL CROP PRODUCTION IN THE SADC REGION (2003-09).
Source: Authors' calculations based on 2010 FAOSTAT (FAO, 2010).

Tanzania that is shown to have the highest share of cattle head in the region with a share of 29% compared to South Africa's 22%. A similar pattern is observed for goat production: South Africa accounts for the largest share of goat meat production (21%) while Tanzania has the largest goat stocks in the region. With respect to pig and sheep production, however, South Africa dominates both meat production and stocks. It accounts for 41 and 75% of pig and sheep meat production, respectively, and accounts for 20 and 70% of pig and sheep stocks, respectively.

5.2.3 Cereal Yields

Cereals are the most important food crops in SADC; dominating crop production with maize being the most important crop in terms of land utilization (Chilonda et al. 2007). Cereal production trends are, thus, indicative of the ability of the region to meet its food needs. As indicated in Figure 5.8, between 2003 and 2009 South Africa accounted for the bulk of cereal production, followed by Tanzania and Madagascar.

Cereal yield trends are presented in Figure 5.10. Mauritius clearly had the highest cereal yields across all periods in the region, with an annual average of 4,029 kg/ha between 1990 and 1995, 6,280 kg/ha between 1995 and 2003, 6,931 kg/ha in 2003, and 7,618 kg/ha between 2003 and 2009. Botswana had the lowest cereal yield of 340 kg/ha between 1990 and 1995. Namibia had the lowest recorded cereal yields across the rest of the three periods, recording an annual average of 400 kg/ha between 2003 and 2009. The middle income group, on average, experienced increasing annual average levels of cereal yields across all periods.

Figure 5.10 shows that among low income countries, Madagascar consistently had the highest cereal yields with 1,937 kg/ha between 1990 and 1995, 1,988 kg/ha between 1995 and 2003 and 2,351 kg/ha between 2003 and 2009. Mozambique had the lowest yield in the low income group between 1990 and 1995 (454 kg/ha), the DRC had the lowest between 1995 and 2003 (784 kg/ha), while Zimbabwe had the lowest between 2003 and 2009 (713 kg/ha). These trends are consistent with the land productivity trends presented in Figure 5.5 and Figure 5.6.

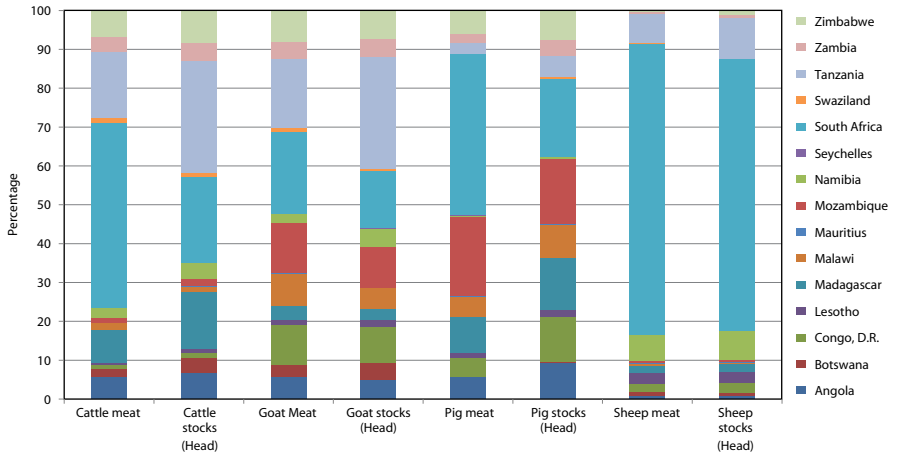


FIGURE 5.9 NATIONAL SHARES IN TOTAL LIVESTOCK PRODUCTION IN THE SADC REGION (2003-09).
Source: Authors' calculations based on 2010 FAOSTAT (FAO, 2010).

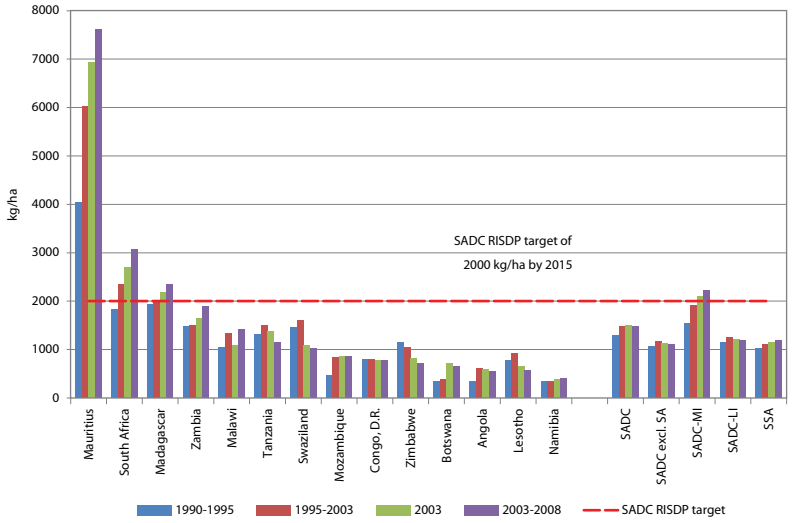


FIGURE 5.10 CEREAL YIELDS IN THE SADC REGION.
Source: Authors' calculations based on 2010 FAOSTAT (FAO, 2010).
Notes: Yield data for Seychelles not available.

Comparing the observed annual average cereal yields to the SADC RISDP target of 2,000 kg/ha shows that only Mauritius has been persistently meeting this target across all periods. Madagascar achieved this target for only two periods, 2003 and 2003-209, while South Africa managed to reach the target for the 1990-1995, 2003 and 2003-09 periods. The rest of the countries have, on average been falling short on the SADC RISDP target of 2,000 kg/ha cereal yield across all periods. The regional averages, like that of the low income group, are also below this target, even when South Africa is removed from the group. The middle income groups, however, had average yields higher than 2,000 kg/ha in 2003 and 2003-09 which is largely driven by Mauritius and South Africa.

Comparing the regional statistics with other major developing countries, Figure 5.11 shows that the SADC region lags behind other regions in terms of cereal yields. The figure also suggests the gap between the SADC average yields and that of the rest of the regions has been widening over time and that this gap widens even further when South Africa is excluded from the regional calculations.

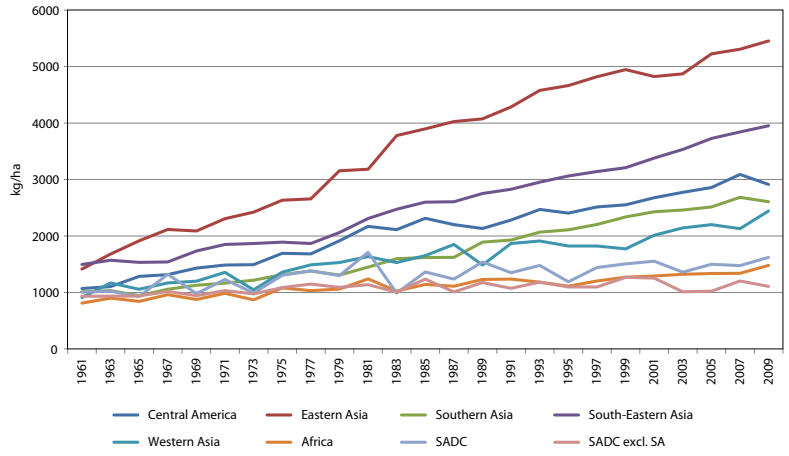


FIGURE 5.11 CEREAL YIELDS BY MAJOR DEVELOPING REGION.
Source: 2010 FAOSTAT (FAO, 2010).
Notes: Cereal yield data for Seychelles not available.

5.2.4 Per Capita Cereal Production

To be able to have an idea of how the region has been fairing in terms of meeting the food needs of its population, Figure 5.12 presents the cereal production per capita.

Despite having been revealed as having the highest cereal yields across all periods, Mauritius has the lowest per capita cereal output across all periods. It is less than a kilogram per capita across all periods except between 1990 and 1995 where it was 1.5 kg/capita. Although the cereal per capita production has been declining over time, South Africa has the highest per capita cereal production across all periods: averaging 289 kg/capita between 1990 and 1995, 272 kg/capita between 1995 and 2003, and 260 kg/capita between 2003 and 2009.

Overall, the region experienced declining cereal production per capita trends across all periods. In fact, as indicated in Figure 5.13 cereal production has been failing to match population growth in the region over the last 4 to 5 decades. Figure 5.13 shows that this

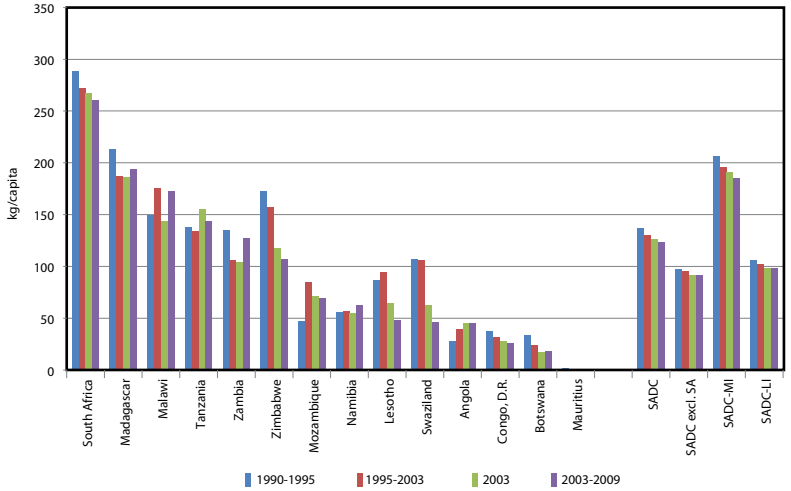


FIGURE 5.12 PER CAPITA CEREAL PRODUCTION IN THE SADC REGION.
Source: Calculations based on 2010 FAOSTAT (FAO, 2010).
Notes: Cereal production data for Seychelles not available.

became particularly a problem from around 1979 when per capita production started lagging behind actual total cereal production, with the gap between the two widening over time. This indicates a widening gap between production and demand for cereals.

5.3 *Total Fertilizer Use*

A look at the trends in fertilizer use, presented in Figure 5.14, suggests a persistent decline in total per hectare fertilizer use in the middle income group, declining from 44 kg/ha between 1990 and 1995 to 34 kg/ha between 2003 and 2009. These levels are below the 50kg per hectare target for 2015 set by the 2006 Abuja Declaration *Fertilizer for an African Green Revolution*.[14] Mauritius has, again, the highest total fertilizer use per hectare across all periods and is one of two middle income countries with fertilizer use rates of more than 50 kg per hectare across all the four periods: a per hectare fertilization rate of 282 kg in 1990-95, 328 kg in 1995-03, 289 kg in 2003 and 275 kg between 2003 and 2009. The other is South Africa with an average fertilization rate of 54 kg per hectare in 1990-95, 51 kg in 1995-03, 52 kg in 2003 and 50 kg per hectare in 2003-2009. This suggests that the realized high cereal yields in Mauritius and South Africa are partly due to high total fertilizer use per hectare. Swaziland managed to reach the 50 kg per hectare target only in 1990-95 in which it recorded fertilization rate of 55 kg per hectare.

Among low income countries, Zimbabwe had the highest fertilizer use rates between 1990 and 1995 (51 kg/ha), 1995 and 2003 (50 kg/ha) and 2003 (37 kg/ha). It is the only country in the low income group to have reached fertilization rates far above the 50 kg per hectare target for 2015 set by the 2006 Abuja Declaration *Fertilizer for an African Green Revolution* but only in the first two periods, 1990-95 and 1995-03. In 2003-09 Malawi overtook Zimbabwe as the country with the highest fertilizer use in the low income group (38 kg/ha), which

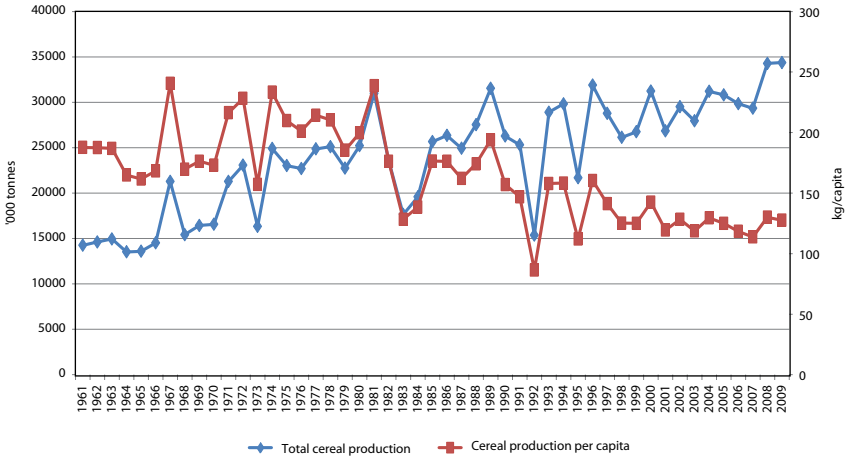


FIGURE 5.13 TRENDS IN TOTAL CEREAL AND PER CAPITA PRODUCTION IN THE SADC REGION.
Source: Calculations based on 2010 FAOSTAT (FAO, 2010) and 2010 WDI (World Bank, 2010).
Notes: Cereal production data for Seychelles not available.

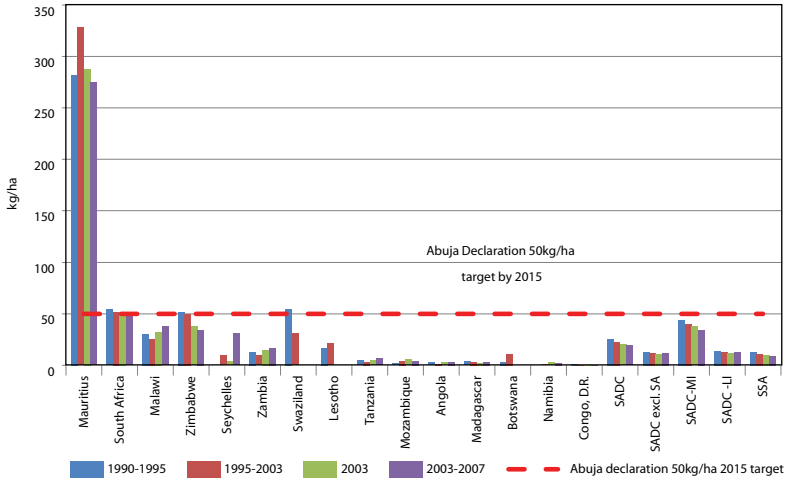


FIGURE 5.14 TOTAL FERTILIZER USE.
Source: Authors' calculations based on FAOSTAT (2010).

[14]In June 2006 and in response soil nutrient mining in the region, the AU Special Summit of the Heads of State and Government adopted the 12-Resolution Abuja Declaration on Fertilizer for the African Green Revolution in which member states resolved, under Resolution 1, to reach fertiliser use rates of 50 kilograms of nutrients per hectare by 2015.

could partly be due to the introduction of farm subsidies, particularly for fertilizers and improved seeds. Arguably, the sustainability of these subsidies is yet to be established and could be a source of vulnerability to food insecurity in the country should the government be no longer in a position to sustain them. Overall, the low income group not only had yield and fertilizer use levels that were consistently below the levels registered by the middle income group but these were also more variable than that of the middle income group.

Comparing the fertilization rates in Figure 5.14 to the target of fertilizer consumption rate of 65 kg/ha set by SADC RISDP, however, means that only Mauritius has managed to reach this target.[15] At the regional level, SADC uses more fertilizer per hectare than SSA. This remains the case even when South Africa is excluded from the group.

Overall, the low fertilizer use coupled with the low cereal yields in low income countries suggest that low fertilizer use could be constraining cereal yields in these countries. This is line with World Bank (2007) which shows that use of chemical fertilizer has been expanding in most developing regions except for SSA. This is attributed to, among other factors, relatively underdeveloped input markets, particularly fertilizer markets. In addition, unfavorable and unpredictable weather conditions threaten agriculture production. For example, excessive rainfall and flooding reported in 2009 in northern Namibia, southern Angola, northern Botswana, western Zambia, and some parts of Malawi and Madagascar resulted in crop losses in these areas. Lesotho, southern Madagascar, and Tanzania, on the other hand, had less than average rainfall, which also affected crop production. This underscores the importance of good early warning systems in the region to allow for mitigation of risk at an early stage.

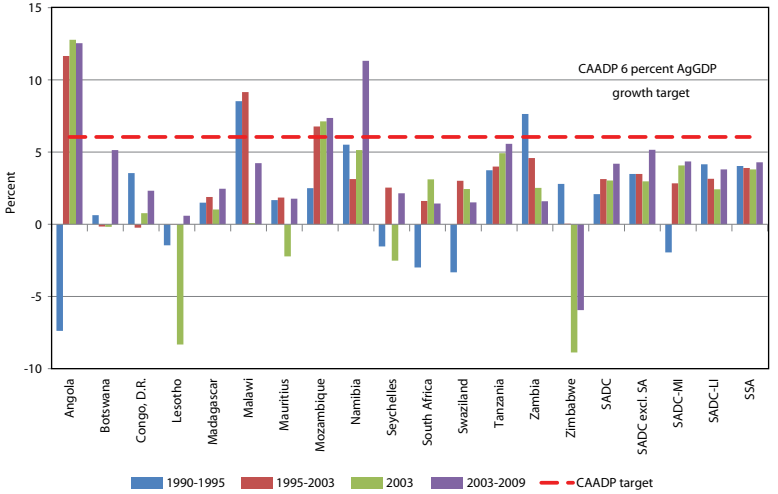


FIGURE 5.15 AGRICULTURE VALUE ADDED (ANNUAL PERCENTAGE GROWTH).
Source: Authors' calculations based on AgGDP data from the 2010 WDI (World Bank, 2010b).

[15]SADC RISDP, within the priority intervention area of sustainable food security, acknowledged the importance of increasing fertilizer consumption in the region if lasting food security was to be achieved in the region. One of the specific targets within this priority intervention area was to achieve a fertilizer consumption rate of 65 kg/ha of arable land by 2015.

5.4 *Agricultural GDP Growth and CAADP Targets*

In order to assess the extent to which countries and the region have been performing in terms of agricultural growth and the progress they have made towards achieving the CAADP targets, the country and regional agriculture value added (AgGDP) growth trends between 1990 and 2008 are presented in Figure 5.15.

Figure 5.15 shows that, although it slightly increased over time, the SADC annual percent growth in AgGDP remained below 6% across all periods: averaging 2% between 1990 and 1995, 3% in the 1995-03 and 2003 periods, and 4% between 2003 and 2009. The picture remains the same even when South Africa is excluded from the group: the growth increases to 5% between 2003 and 2009 but it is still below the 6% target. Moreover, the agricultural growth registered by the region as a whole is consistently lower than that of SSA.

Focusing on individual countries reveals success stories for Angola which rose from a negative AgGDP annual average growth between 1990 and 1995 to consistently having the fastest growing agriculture sector in the region, registering an annual average growth of more than 6% for the rest of the three periods, with 11.6% in 1995-03, 12.8% in 2003, and 12.5% between 2003 and 2009. Malawi on the other hand, started off with annual average growth rates of 8.5% between 1990 and 1995 and 9.2% between 1990 and 2003 but this decreased to 4.2% between 2003 and 2009. Another success story is Mozambique which had AgGDP growth rates of more than 6% since 1995-03. For Namibia, although its AgGDP growth rates were below 6% in the first three periods, it had a relatively high annual% growth of 11.3% in 2003-09 (second to Angola in the region). However, a strict consideration of the 6% target and considering only the post-2003 period (i.e., 2003-09) indicates that, on average, only three countries in the region (Angola, Mozambique, and Namibia) reached the CAADP target at some point during this period.

The negative annual percentage growth in AgGDP observed in half of the middle income group —Angola, Lesotho, Seychelles and South Africa— could be partly attributed to the 1991-92 droughts which affected several southern African countries and were considered

one of the most severe meteorological droughts of the twentieth century (UNECA 2007). A look at the annual AgGDP growth rates in 2003-09 shows that the low 2003-09 annual average experienced by Lesotho is driven by the drastic decline in AgGDP between 2006 and 2007. As argued in Obioha (2010), Lesotho has, in the recent times, been experiencing continuous climatic change characterized by drastic reduction in rainfall, and an increase in the rate of dryness and heat. Furthermore, in 2006-07 Lesotho faced the worst drought in 30 years (Obioha 2010).

The post-2003 year-to-year AgGDP growth rates are presented in Figure 5.16 for middle income countries and in Figure 5.17 for low income countries. Angola has been experiencing AgGDP growth rates of more than 6% in the post-2003 period except in 2008 where it had a growth rate of 1.8%. Considering the latest period, 2009, Figure 5.16 and Figure 5.17 show that seven countries (Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique and Namibia) surpassed the CAADP target of 6% AgGDP growth at some point during this period. In fact Mozambique has been consistently registering AgGDP growth rates of more than 6% since 2005.

In addition, Figure 5.16 and Figure 5.17 suggest that AgGDP growth has been very erratic and variable in the region. For example the AgGDP growth rates for Botswana ranged from -8.9% in 2004 to 26% in 2009; the range for Lesotho was from -12.4 in 2005 to 14.9% in 2006, while Namibia had a range of -1.4 in 2007 to 55.3% in 2009. These wide ranges are indicative of an erratic and highly variable agriculture sector in the region, within and across the years. Computation of the coefficient of variation (CV), a measure used to describe the dispersion of a variable, confirms the existence of wide variation in AgGDP among SADC countries, with the highest within year variation recorded for 2005 which had a CV of 19. Lesotho is shown to suffer from highly variable AgGDP, with the highest within country and across years CV of 15.5.

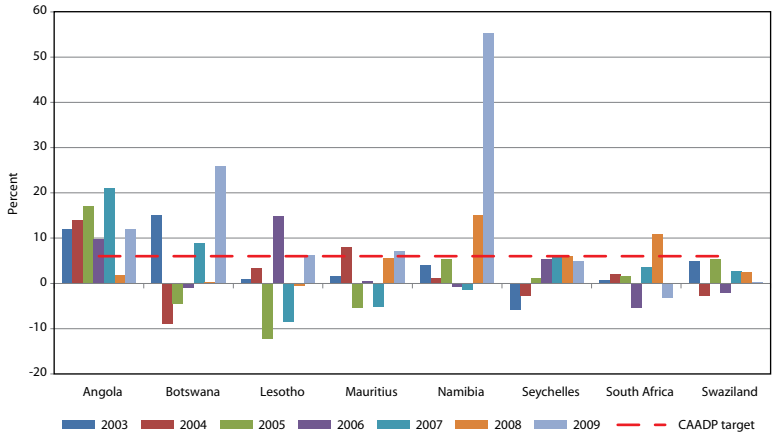


FIGURE 5.16 POST-2003 YEAR-TO-YEAR AGRICULTURE VALUE ADDED (ANNUAL PERCENTAGE GROWTH), MIDDLE INCOME COUNTRIES.
Source: Authors' calculations based on AgGDP data from the 2010 WDI (World Bank, 2010b).

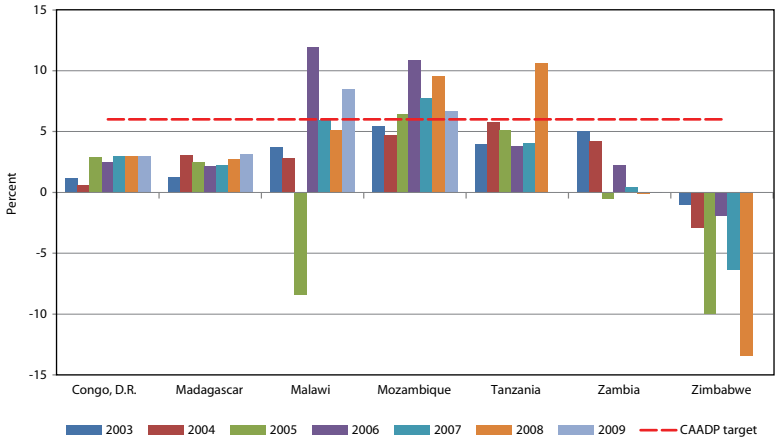


FIGURE 5.17 POST-2003 YEAR-TO-YEAR AGRICULTURE VALUE ADDED (ANNUAL PERCENTAGE GROWTH), LOW INCOME COUNTRIES.
Source: Authors' calculations based on AgGDP data from the 2010 WDI (World Bank, 2010b).

5.4.1 *Linking Agricultural Investment Spending to AgGDP*

Using Mozambique as a case study, the link or association between the levels of investment spending by core government functions to AgGDP is investigated through computation of pair-wise correlations between 2001 and 2009. Model (a) correlates AgGDP in a particular year to the expenditure levels for the same year. Model (b), on the other hand, correlates AgGDP in a particular year to the expenditure levels in the previous year to allow for the possibility that the impact of investments on AgGDP might take time to be realized. The results of this analysis are reported in Table 5.1. It is important to note that the results in Table 5.1 do not imply a cause-and-effect relationship between public investment spending and AgGDP particularly given that it may take several years before the impact of investments on AgGDP are realized. Moreover, there could be other factors besides investments (for example, rainfall patterns) that influence the prevailing AgGDP levels (see for example, Zepeda 2001 and Roy and Pal 2002).

Without implying any causal relationship, Table 5.1 suggests that between 2001 and 2009, investments in the following functions were correlated with high levels of AgGDP: extension, research, production support, livestock services, forestry and common or non-planned expenses. These correlations were found to have statistical significance. Moreover, a consideration of total investment expenditure also indicates a positive and statistically significant association between AgGDP and total expenditure. In general, the correlation coefficients in Table 5.1 tell us how much of the variation in AgGDP is related to investment spending in different core functions. Correlation coefficients range from -1 (inverse or negative relationship) to 1 (direct or positive relationship) and thus indicate the direction and strength of the relationship between two variables under study. Particular to Table 5.1 and focusing on coefficients that were found to be statistically significant as seen in Table 5.1 shows that the strongest relationship is that of AgGDP and production support (correlation coefficient of 0.914 in model (a) and 0.840 in model (b)).

TABLE 5.1 CORRELATION BETWEEN AgGDP AND INVESTMENT SPENDING BY CORE FUNCTION IN MOZAMBIQUE (2001-09).

	(a)		(b)	
	Correlation with AgGDP	*p-value*	Correlation with AgGDP	p-value
Extension	0.535	0.138	0.697*	0.055
Research	0.860*	0.003	0.810*	0.015
Production support	0.914*	0.0006	0.840*	0.009
Land rights and management	-0.556	0.121	-0.367	0.371
Irrigation	-0.317	0.406	-0.145	0.732
Livestock services	0.766*	0.016	0.690*	0.058
Forestry	0.882*	0.002	0.793*	0.019
Institutional support	-0.230	0.552	-0.157	0.710
Common expenses (and non-planned activities)	0.844*	0.004	0.705*	0.051
Total investment expenditure	0.929*	0.0003	0.869*	0.005

Source: Authors' calculations based on MINAG/Directorate of Administration and Finance, Mozambique (2001-09).
Note: * indicates significance level at 1%.

5.4.2 *Reaching the CAADP 6% AgGDP Annual Growth Targets*

It is important to project a future outlook of SADC's agriculture growth rates and the estimated progress towards reaching the CAADP target of at least 6% annual growth in AgGDP. This is illustrated in Figure 5.18. The figure presents the AgGDP growth trend that prevailed between 2003 and 2009 as well as a trendline that projects the possible outlook into the next six periods (6 years in this case i.e., is the period from 2010 to 2015). A logarithmic trendline is used given the non-linear observed AgGDP growth trend between 2003 and 2009.

The Figure 5.18 also suggests that, based on the AgGDP trends observed between 2003 and 2009, the region is on track to meet the CAADP 6% AgGDP annual growth target. Excluding South Africa suggests an even more improved outlook in terms of achieving the 6% AgGDP growth target set by CAADP.

Separating middle and low income countries, Figure 5.19 suggests that while middle income countries are, on average and based on trends observed between 2003 and 2008, on track to meeting the CAADP target, low income countries are not. In fact as shown in Figure 5.19, low income countries did not, as a group, manage to reach the 6% AgGDP growth target between 2003 and 2009.

The foregoing illustration of the future outlook for AgGDP growth in the region suggests that middle income countries are driving the trends observed at the regional level and also raise concerns for the slow AgGDP growth prevailing in low income countries. Given the high proportion of people dependent on agriculture particularly in low income countries, the foregoing analysis indicates that, based on trends prevailing between 2003 and 2009, these countries are likely to continue facing challenges associated with low agricultural productivity. This underscores the need to increase and sustain investments in agriculture sectors, particularly in low income countries. Data on Table 5.1 which uses Mozambique as a case study suggests that such investments could target extension, research and production support ((i.e., funds spent on agricultural production processes and includes, for example, subsidies, emergency distribution of inputs and farm implements, etc.). This is consistent with findings which show that investments in agricultural research and extension generate the highest returns of any form of agricultural spending. For example, returns to agricultural research average around 50% in Africa (Alston et al. 2000), although returns vary from country to country owing to the diversity of farming systems and dependence on rain-fed production.

A consideration of the individual countries suggests that seven out of fifteen SADC countries are on track to meeting the CAADP target, based on the trends observed in these countries between 2003 and 2009. This includes Angola, Botswana, Malawi, Mozambique, Namibia, Seychelles and Tanzania. An illustration of the future outlook for AgGDP is provided in Figure 5.20 for middle income countries and in Figure 5.21 for low income countries.

Overall, the erratic AgGDP growth trends in most countries –both middle and low income– suggest a relatively unstable agriculture environment in the region. This instability could be due to the relatively high dependence of agricultural production on rainfall and general weather patterns.

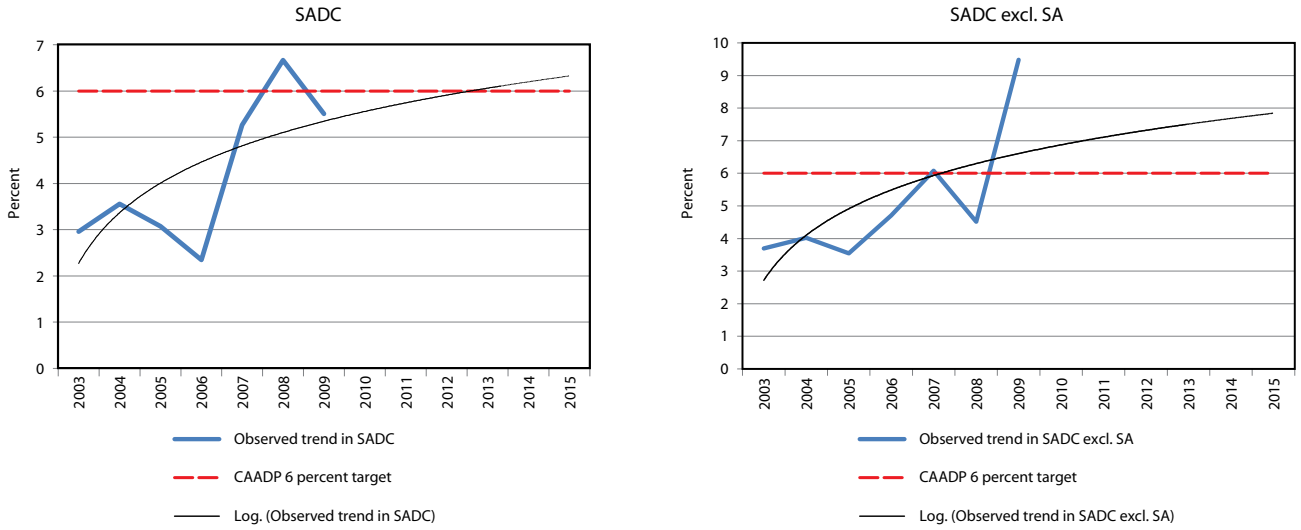


FIGURE 5.18 FUTURE SADC OUTLOOK FOR PROGRESS TOWARDS THE CAADP AgGDP GROWTH TARGET.
Source: Authors' calculations based on AgGDP data from the 2010 WDI (World Bank, 2010b).

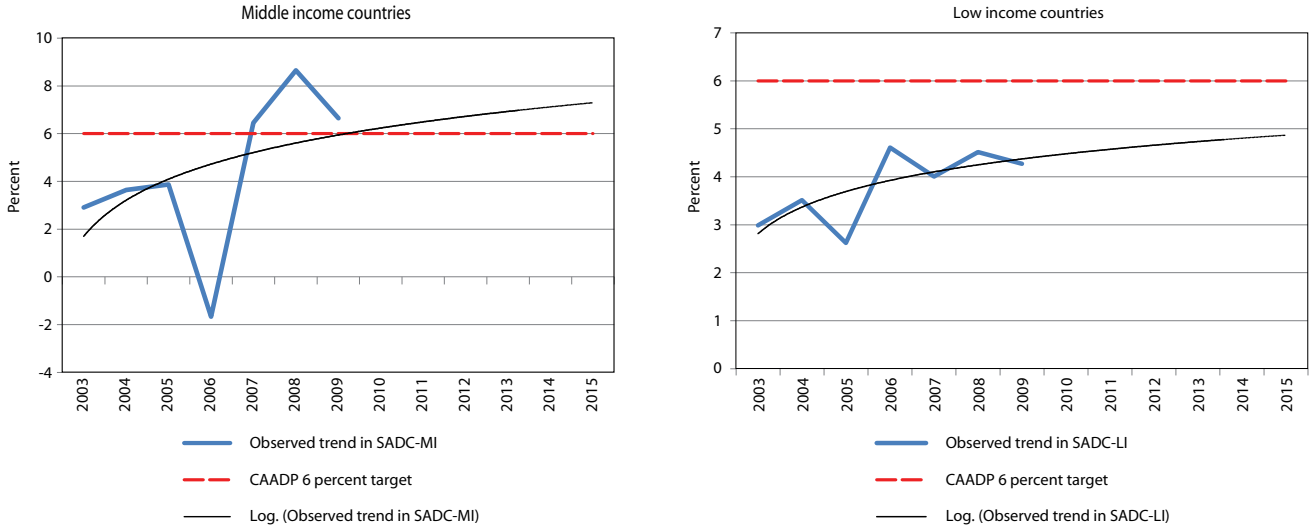
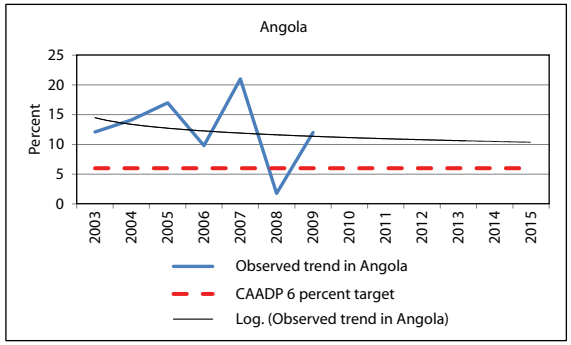
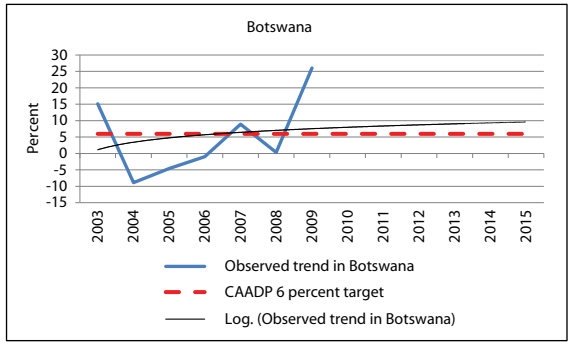
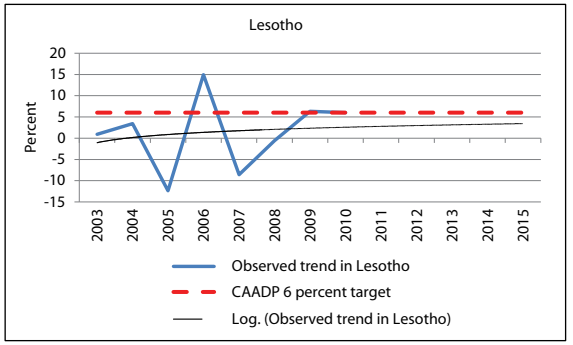
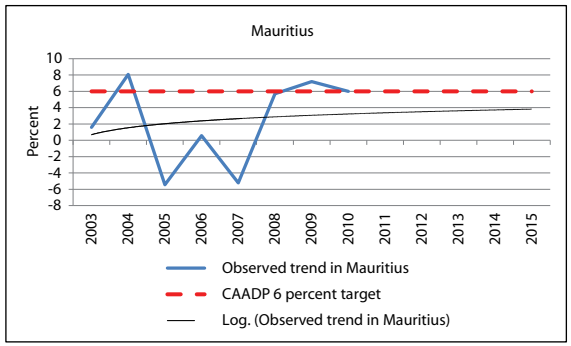


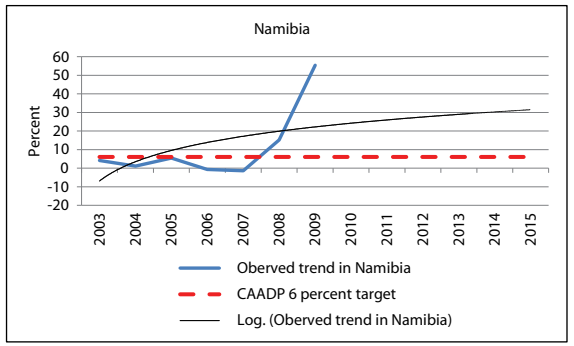
FIGURE 5.19 FUTURE OUTLOOK FOR PROGRESS TOWARDS THE CAADP AgGDP GROWTH TARGET, MIDDLE AND LOW INCOME COUNTRIES.
Source: Authors' calculations based on AgGDP data from the 2010 WDI (World Bank, 2010b).

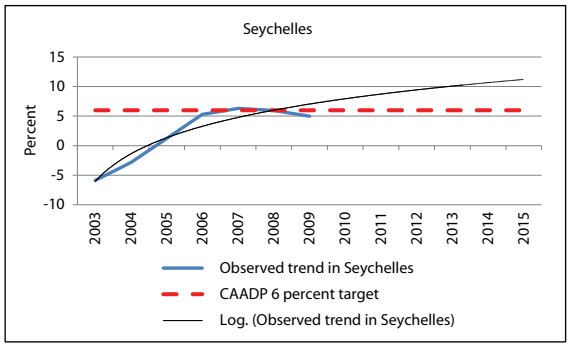












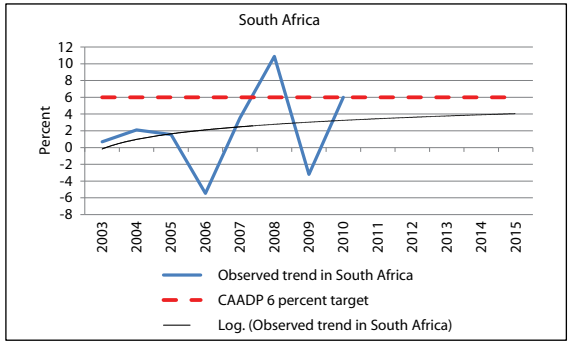


FIGURE 5.20 FUTURE OUTLOOK FOR PROGRESS TOWARDS THE CAADP AgGDP GROWTH TARGET, MIDDLE INCOME COUNTRIES.
Source: Authors' calculations based on AgGDP data from 2010 WDI (World Bank, 2010b).

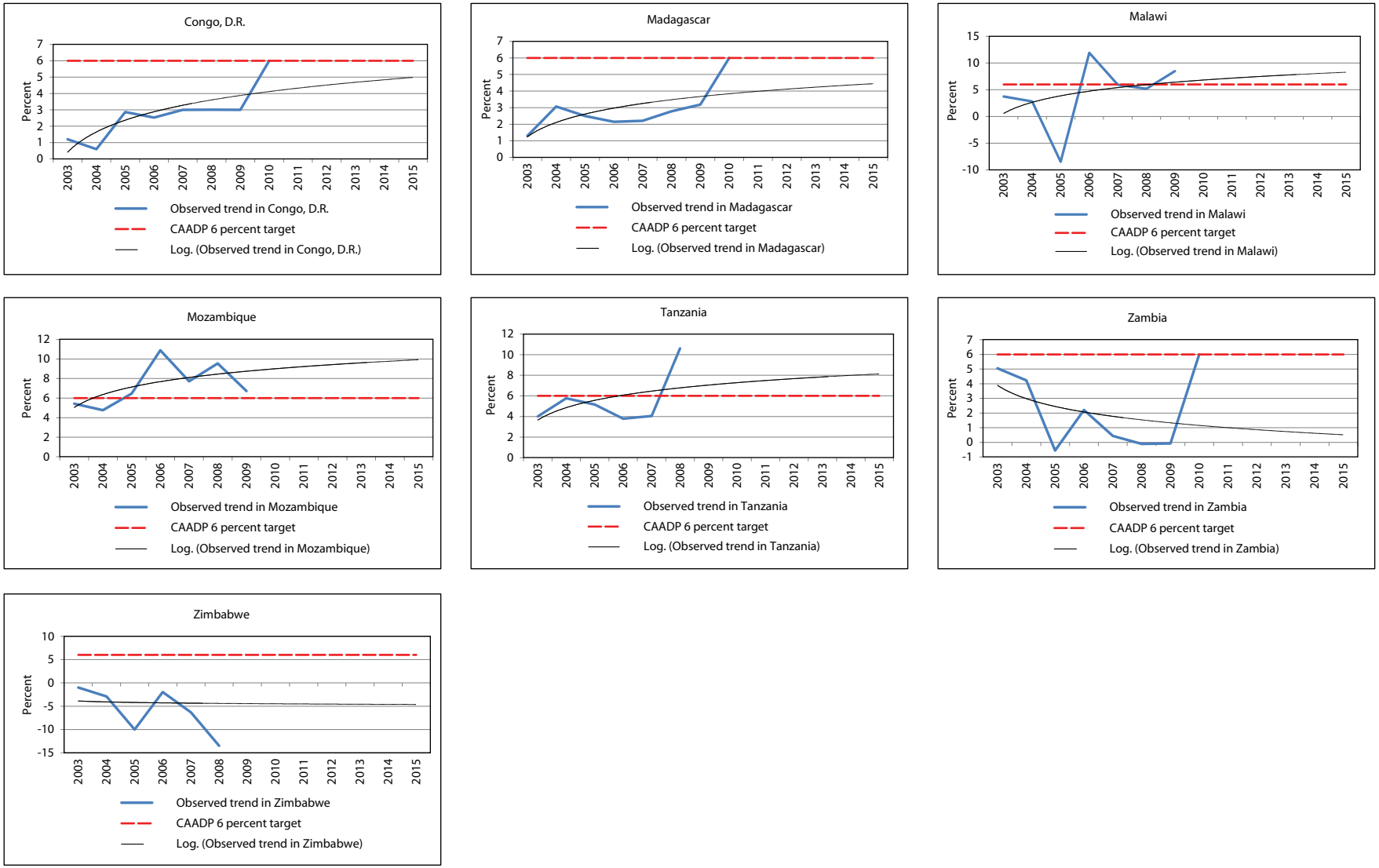


FIGURE 5.21 FUTURE OUTLOOK FOR PROGRESS TOWARDS THE CAADP AgGDP GROWTH TARGET, LOW INCOME COUNTRIES.
Source: Authors' calculations based on AgGDP data from 2010 WDI (World Bank, 2010b).

6. Agricultural Trade Performance

The diversity of agro-ecology and subsequent farming systems in the region imply different countries have comparative advantages in different agricultural products, which necessitates trade in order to supplement and complement domestic production. Thus, intra- and inter-regional trade is vital for promoting food security in as far as it uses existing marketing channels from surplus to deficit regions, and help reduce price volatility in the region and beyond. Furthermore, agricultural trade helps not only to promote intra-regional trade but also to foster economic development through, for example, facilitating economies of scale, improving competitiveness and stimulating investments and pooling public resources. Moreover, trade is vital to facilitating the integration of countries into the global economy through, for example, increasing bargaining power in international negotiations and improving market access for agricultural products to international markets.

To highlight the contribution of individual countries to total regional agricultural trade, each country's annual average contribution to total agricultural exports and imports in the regional total in 2003-07 is shown in Figure 6.1. [16]

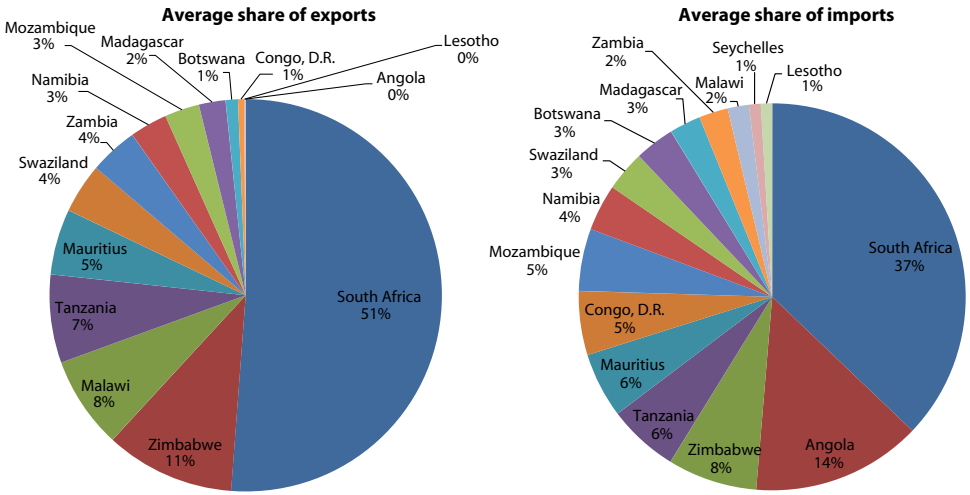


FIGURE 6.1 NATIONAL SHARES IN TOTAL SADC AGRICULTURAL EXPORTS AND IMPORTS (2003-07).
Source: Authors' calculations based on agricultural trade data from 2010 WDI (World Bank, 2010b).

[16] Although informal or unrecorded cross border agricultural trade is prevalent in the region and of importance particularly at micro-level, data limitations as well as the scope of this report do not allow for such an analysis.

South Africa dominated both exports and imports in the region between 2003 and 2007, accounting for 51 and 37% of total regional agricultural exports and imports, respectively. With a share of 11%, Zimbabwe had the second highest share of agricultural exports in the region. Angola, Lesotho and Seychelles had shares less than one percent. Angola was second to South Africa in terms of contribution to regional imports, contributing 14% to the regional total. Again Lesotho and Seychelles contributed less than one percent to regional total imports.

In order to have an overview of the importance of agricultural exports and imports in each country, Figure 6.2 and Figure 6.3 report each country's share of agricultural exports and imports in total merchandize exports and imports for the middle and low income group, respectively. Among middle income countries, Swaziland had the highest share of agricultural exports in total merchandize exports in 2003-08, with a share of 14%. Mauritius, with a share of 14%, had the highest proportion of agricultural imports in total merchandize imports in 2003-08. Across all periods, Angola, Botswana, Lesotho and Seychelles had higher agricultural imports shares in total merchandize imports than agricultural exports shares in total merchandize exports. South Africa on the other hand, consistently had higher agricultural export shares in total merchandize exports than agricultural import shares in total merchandize imports.

Focusing on low income countries indicates that the share of exports in total exports is consistently higher than the share of imports in total imports for Malawi, Tanzania and Zimbabwe. In the case of DRC and Mozambique, on the other hand, Figure 6.3 shows that the share of exports in total exports is consistently lower than the share of imports in total imports across all periods.

In general, both figures confirm the importance of agriculture in low income countries by showing that the annual average share of both agricultural exports and imports in total merchandize exports and imports, respectively, is consistently higher in the low income than in the middle income group. Specifically, as a group, the low income countries had an annual average share of agricultural exports in total merchandize exports equal to 16% in

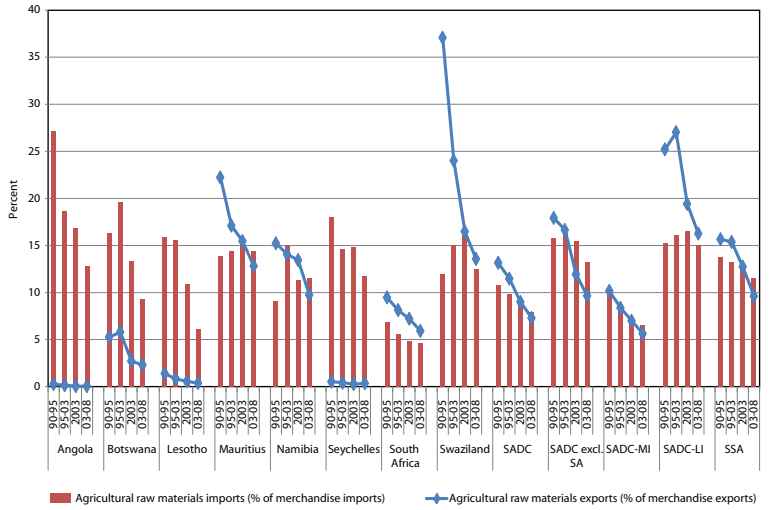


FIGURE 6.2 SHARE OF AGRICULTURAL EXPORTS AND IMPORTS IN TOTAL EXPORTS AND IMPORTS, MIDDLE INCOME COUNTRIES.

Source: Authors' calculations based on agricultural trade data from 2010 WDI (World Bank, 2010b).

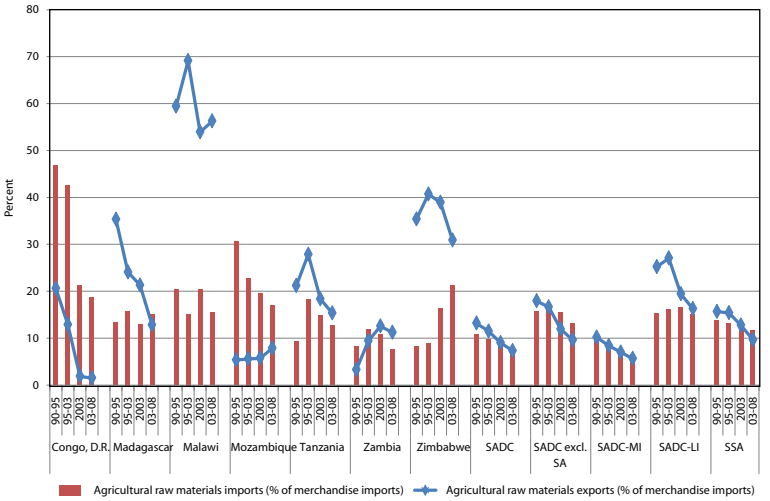


FIGURE 6.3 SHARE OF AGRICULTURAL EXPORTS AND IMPORTS IN TOTAL EXPORTS AND IMPORTS, LOW INCOME COUNTRIES.

Source: Authors' calculations based on agricultural trade data from 2010 WDI (World Bank, 2010b).

2003-08 while the middle income group had 6%. The annual average share of agricultural imports in total merchandize exports, on the other hand, was 15 and 7% for low and middle income countries in 2003-08, respectively.

An interesting question is whether increased integration of agricultural international markets jeopardizes or enhances food security in SADC countries. A computation of the correlation between agricultural trade (exports plus imports) as a percentage of AgGDP and the prevalence of child malnutrition as an indicator of the depth of hunger in the region gave a correlation coefficient of -0.6. The coefficient was found to be statistically significant at 1% level of significance. The corresponding correlation coefficient between the total value of agricultural exports and child malnutrition was found to be -0.75 while it was -0.79 for agricultural imports and child malnutrition. Both were statistically significant at 1% level of significance. Without implying any causal relationship, the negative and statistically significant coefficient suggests that involvement in agricultural trade is associated with reduced levels of child malnutrition, consistent with findings by FAO (2005). FAO (2005) argues that the extent of correlation between agricultural trade and hunger is, however, influenced by other factors which include, among others, markets, infrastructure and institutions. In general, increased agricultural trade could be accompanied by improved food security and reduced poverty if trade reforms are designed and implemented in an explicitly pro-poor manner. This includes, for example, putting in place safety nets to protect poor and vulnerable groups during the transition to freer trade.

Overall, for agricultural trade to enhance food security and help reduce poverty, it is important for low income countries in the region to ensure that their trade regimes are conducive to stimulating growth in the agriculture sector.

6.1 Net Agricultural Trade

An overview of SADC countries' agricultural net trade measured as the difference between the total value of agricultural exports and imports is presented in Figure 6.4. Net trade

is found to be negative for the majority of countries in the majority of time periods, implying that the majority of SADC countries are net importers of agricultural products. Considering the latest period, 2003-07, nine of the fifteen countries were net importers of agricultural products. Of these Angola had the largest trade gap with exports falling short of imports by USD1,122 million followed by the DRC at USD389 million. In fact, the net trade was persistently deteriorating for both Angola and DRC across all periods. It is important to note that although Angola has been previously revealed to have had favorable AgGDP growth rates in the region between 2003 and 2009, the actual AgGDP levels are still relatively low and as a result domestic demand for agricultural commodities exceeds supply. Thus, the trade gap for Angola suggests that the realized AgGDP growth has not resulted in increased agricultural exports or reduced imports. Of the six countries (Malawi, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe) that had a positive net trade in 2003-07, South Africa had the highest net exports worth USD682 million followed by Malawi at USD398 million. Madagascar, Mauritius and Namibia moved from having positive annual average net trade in 1990-03 to having negative net trade in 2003-07.

Taking a regional perspective indicates that although as a region SADC was a net exporter in 1990-95, 1995-03 and 2003, the magnitude of the value of net trade was declining over time until the region was reversed to being a net importer of agricultural products in 2003-07. The middle income countries (principally Angola) are driving the negative net trade recorded in 2003-07: middle income countries were net importers of agricultural products in 1995-03, 2003, and 2003-07 while low income countries were net exporters across all periods. At the same time, these trends could be suggesting that the majority of SADC countries, particularly low income countries, continue to lag behind the rest of the world in terms of technological advancements (for example in manufacturing), relying mostly on exports of raw materials instead of manufactures.

Sub-Saharan Africa, like SADC as a whole, went from being a net exporter in 1990-95 to being a net importer of agricultural products in 2003-07.

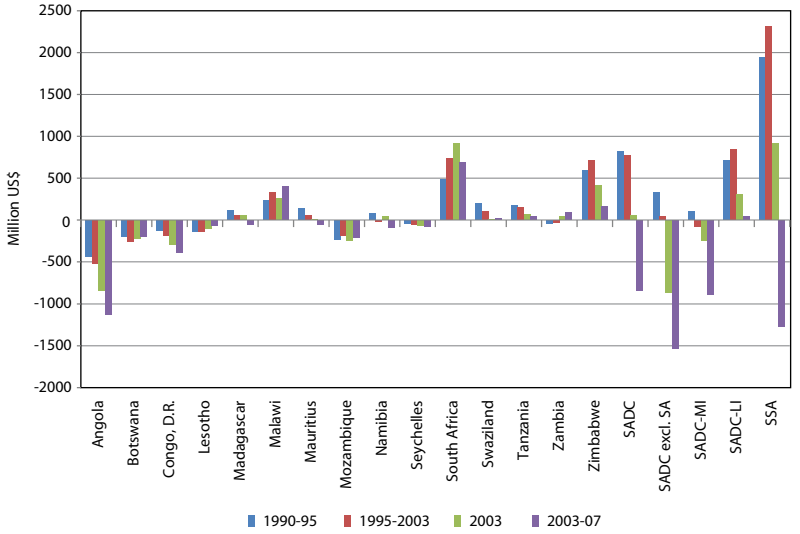


FIGURE 6.4 TRENDS IN NET AGRICULTURAL TRADE IN THE SADC REGION.
Source: Authors' calculations based on agricultural trade data from 2010 WDI (World Bank, 2010).

Overall, Figure 6.4 indicates that the agricultural trade gap for the region has been widening over time and that the period 2003-07 was particularly disappointing. It should be noted that since the data used here goes only up to 2007, it is likely that the gap has been widening further given the fuel and food crises of 2008 and the global financial crisis which led to a contraction in economic activity around the globe. These crises affected most African (including SADC) economies primarily through a reduction in export earnings (especially for minerals/raw materials). These crises were accompanied by an increase in import commodity prices which is expected to have an impact on export-import ratios.

6.2 *Trade in Cereals and Oil Crops*

6.2.1 *Trade in Cereals*

A focus on total cereals and specifically maize trade indicates that the majority of countries and the region as a whole were net importers of both total cereals and maize across all periods (see Table D.5 in the Annex). In 2003-08, all countries and economic groups were net importers of total cereals while in the case of maize, only Malawi, South Africa and Zambia were net exporters with a trade surplus of 25,000, 264,000 and 46,000 tonnes respectively.

As illustrated in Figure 6.5, SADC as a region has been a persistent net importer of cereals in the last decade. However, as indicated in Figure 6.6, in the last decade maize generated a trade surplus in 2005 owing to the increased harvest in several SADC countries.

Both Figure 6.5 and Figure 6.6 are indicative of how dependent exports and imports in the SADC region are on climatic conditions principally because the majority of agricultural production is rain-fed. The sharp decline in total cereals and maize exports and the increase in imports correspond to incidences of drought in the region: for example, the southern African region experienced droughts in 1983-84, 1986-87, and 1991-92, among other years (UNECA 2007). In these periods the region experienced a significant drop in both total cereals and maize exports while imports of these crops shot up.

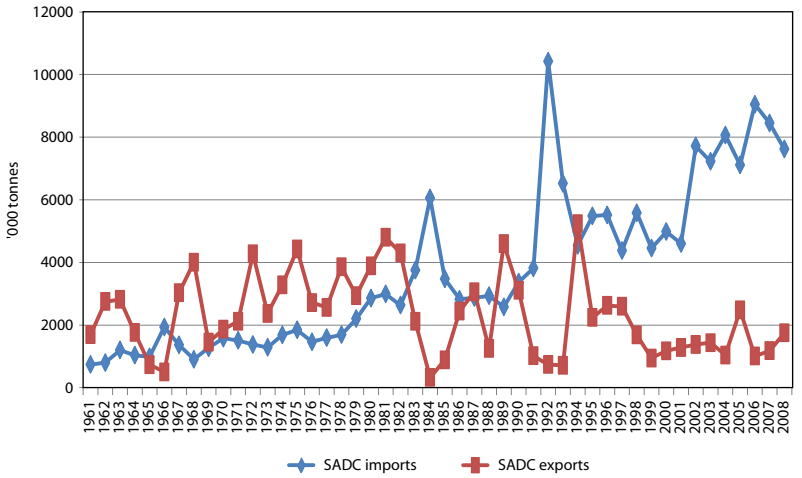


FIGURE 6.5 CEREAL TRADE IN THE SADC REGION (IN 1,000 TONNES).
Source: 2010 FAOSTAT (FAO, 2010).

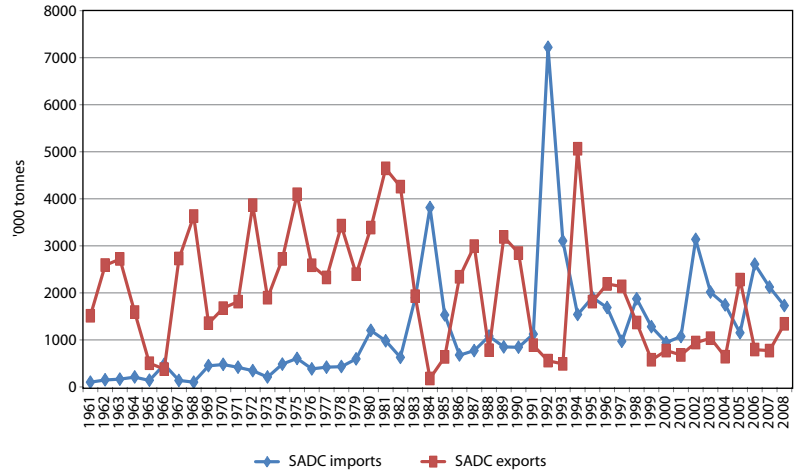


FIGURE 6.6 MAIZE TRADE IN THE SADC REGION (IN 1,000 TONNES).
Source: 2010 FAOSTAT (FAO, 2010).

Figure 6.5 and Figure 6.6 reveal high variability of total cereal and maize exports and imports in the region. Computing the coefficient of variation for these indicators suggest that imports are actually more variable than exports. Maize imports have a high coefficient of variation of 103% while total cereal imports had 68%. In terms of exports, maize and total cereal exports have a coefficient of variation of 63 and 55%, respectively.

The variability in the net trade balance of both total cereals and maize is reflected in the trends in food aid (mainly cereals) to the SADC region as shown in Figure 6.7. Food aid shipments to SADC rise with a fall in exports. This means food aid bridges the gap between food supply and demand. However, as argued by Barrett (2006), although food aid serves the purpose of increasing food availability, among other benefits, it might have other unintended adverse impacts such as, for example, decreasing government support to agriculture and distortion of local prices of agricultural products.

6.2.2 Trade in Oil Crops

To illustrate the trend in the region's trade in oil crops, Figure 6.8, Figure 6.9, Figure 6.10 and Figure 6.11 show SADC's trade gap with respect to trade in cottonseed, (shelled) groundnuts, soybeans and sunflower seed, respectively.

The region is shown to have been a net importer of soybeans since 1992. However, with respect to cottonseed, groundnuts and sunflower seed, the net trade of the region fluctuated between being net importer and being net exporter. With the exception of sunflower seed, computation of the coefficient of variation indicates that imports of these crops were generally more variable than exports. This high import and export variability reiterates the dependence of regional agricultural trade on climatic conditions.

Consideration of the level of the trade gap (that is the difference between the quantity of exports and the quantity of imports) indicates that between 1961 and 2008, the region was on average, a net exporter of all the four oil crops with the exception of soybeans. Specifically the level of net exports was 15,264 tonnes in the case of cotton seed, 39,692 tonnes for

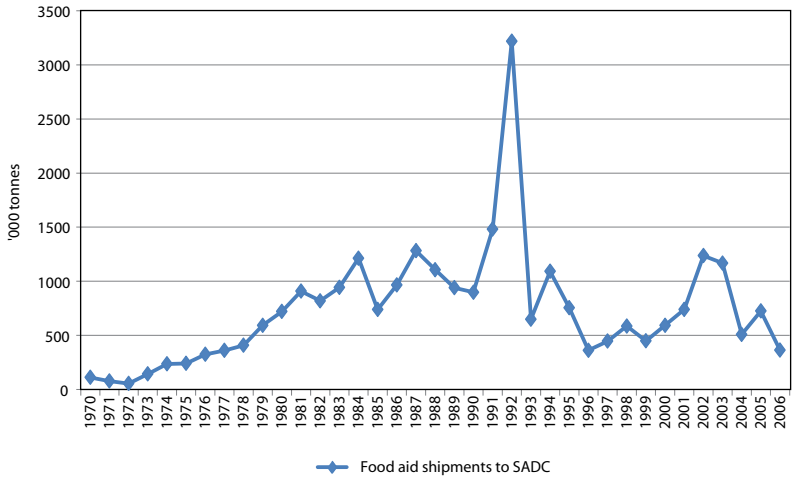


FIGURE 6.7 FOOD AID SHIPMENTS TO SADC.
Source: 2010 FAOSTAT (FAO, 2010).

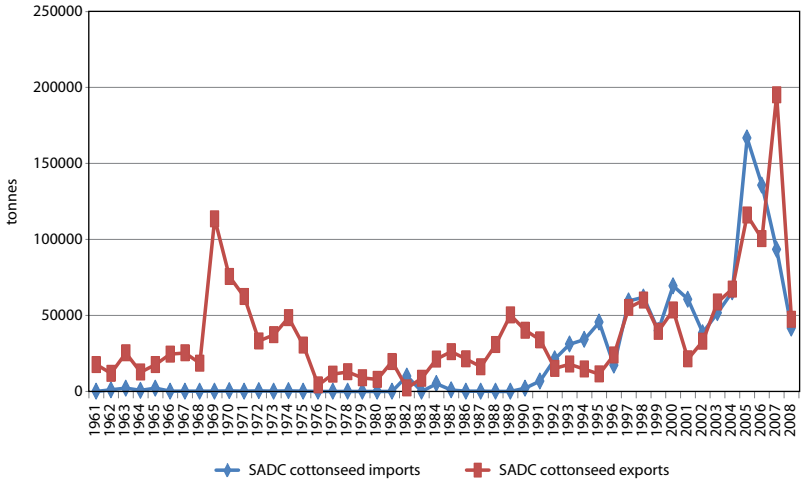


FIGURE 6.8 SADC TRADE IN COTTON SEED.
Source: 2010 FAOSTAT (FAO, 2010).

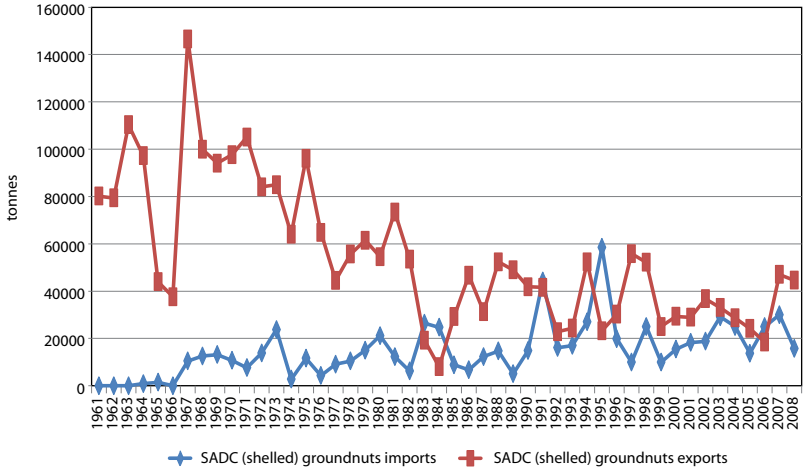


FIGURE 6.9 SADC TRADE IN (SHELLED) GROUNDNUTS.
Source: 2010 FAOSTAT (FAO,2010).

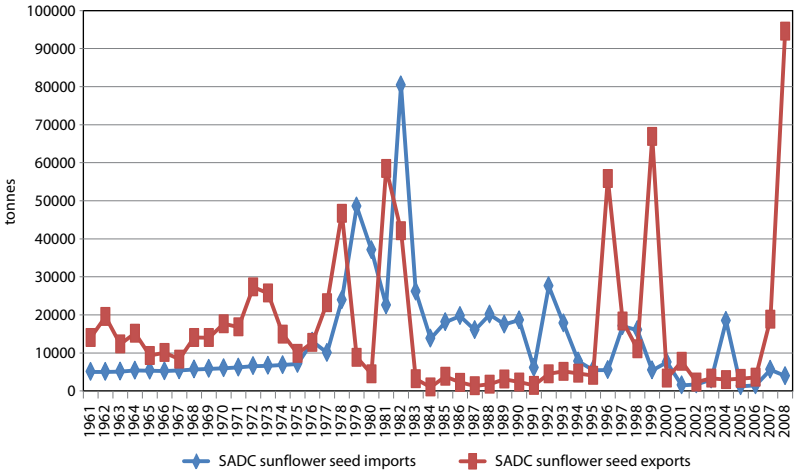


FIGURE 6.11 SADC TRADE IN SUNFLOWER SEED.
Source: 2010 FAOSTAT (FAO, 2010).

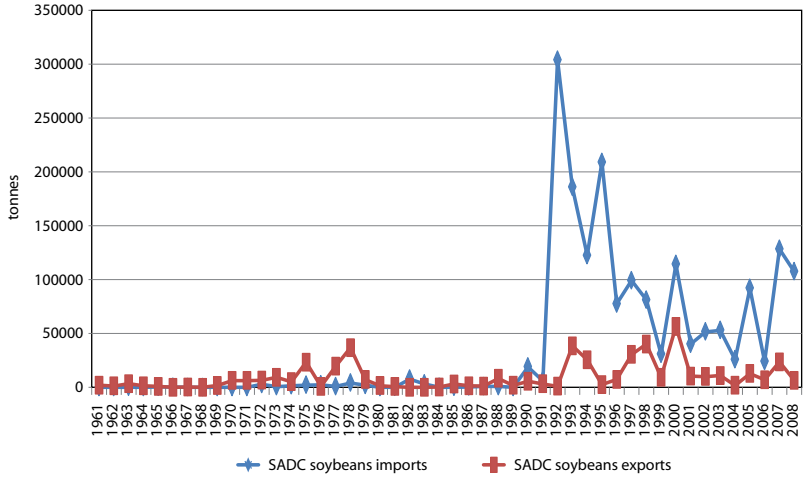


FIGURE 6.10 SADC TRADE IN SOYBEANS.
Source: 2010 FAOSTAT (FAO, 2010).

groundnuts, -28,057 tonnes for soybeans and 15,479 tonnes for sunflower seed. Focusing on the period between 2003 and 2008 indicates similar trends although the magnitude of the trade gap changes, in that the highest net exports were sunflower seed and the lowest were soybeans, which recorded net exports of around -61,255 tonnes.

6.3 *Trade in Livestock Products*

Figure 6.12, Figure 6.13, Figure 6.14 and Figure 6.15 provide an overview of the region's trade gap in livestock products by showing the deviation of imports from exports in cattle, chicken, pig and sheep meat, respectively.

Taken together, these figures indicate that SADC is, on average, a net importer of key livestock products. Specifically, since the late 1980s, the region has been a net importer of chicken, pig and sheep meat with the gap widening over time particularly for chicken and pig meat. In fact, calculation of the size of the trade gap reveals that the region has negative net exports for the four livestock products. In the case of cattle meat, net exports of -1,465 tonnes were recorded between 1961 and 2008; -74,221 tonnes for chicken meat; -5,532 tonnes for pig meat and -11,273 tonnes for sheep meat. Similar patterns are revealed for the 2003-08 period: the region is a net importer of cattle, chicken, pig and sheep meat.

In summary, although trade in livestock products (meat in this case) varies across years possibly reflecting inter-temporal variations in economic and climatic conditions, the fact that the region is shown to be, on average, a net importer of these products raises concern. Based on recent trends, this is likely to remain a problem in the foreseeable future, if current conditions continue. This calls for policy attention – in terms of prioritization and resource allocation – to the livestock subsector in order to increase the exploitation of the potential in this subsector for the region.

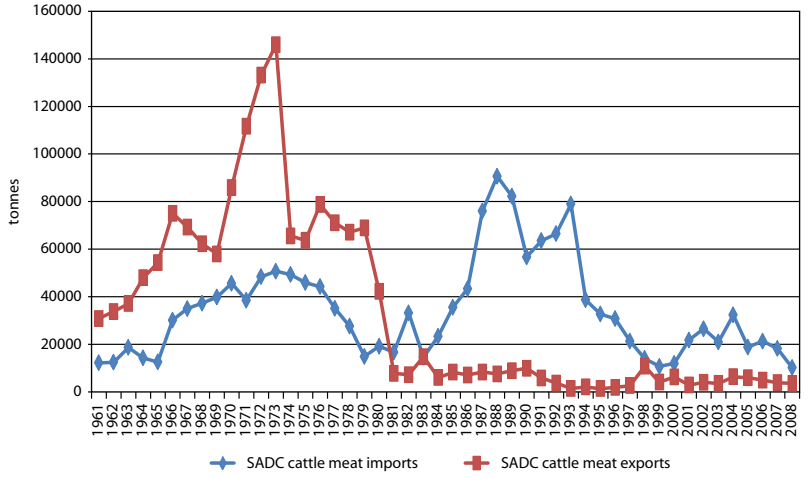


FIGURE 6.12 SADC TRADE IN CATTLE MEAT.
Source: 2010 FAOSTAT (FAO, 2010).

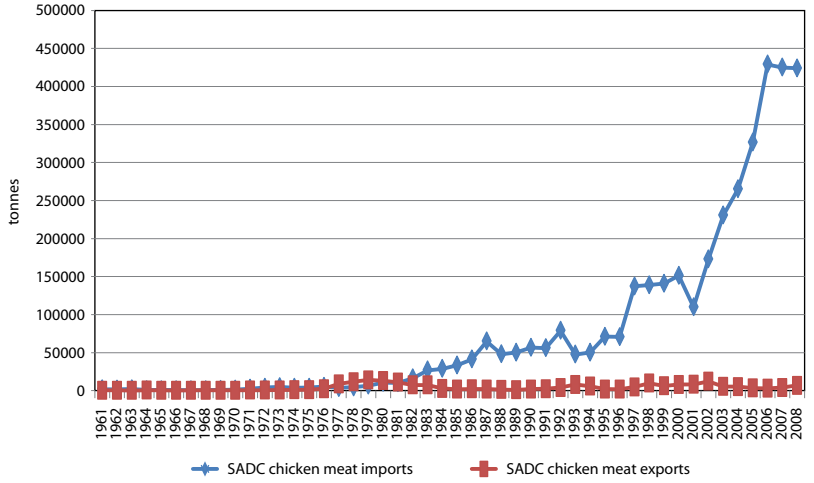


FIGURE 6.13 SADC TRADE IN CHICKEN MEAT.
Source: 2010 FAOSTAT (FAO, 2010).

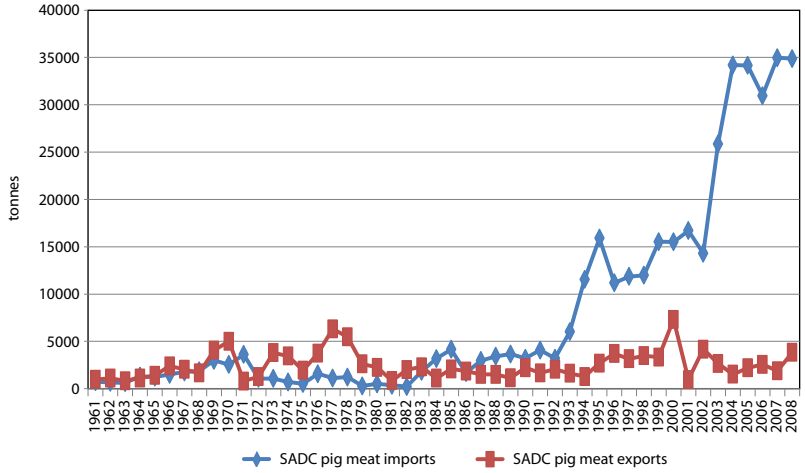


FIGURE 6.14 SADC TRADE IN PIG MEAT.
Source: 2010 FAOSTAT (FAO, 2010).

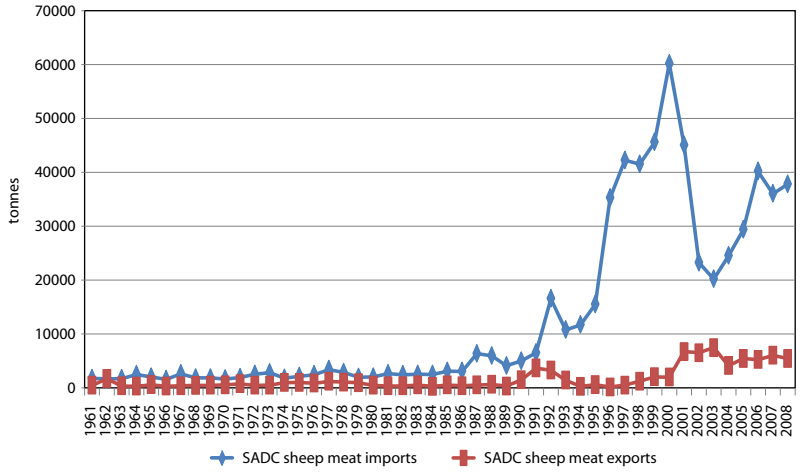


FIGURE 6.15 SADC TRADE IN SHEEP MEAT.
Source: 2010 FAOSTAT (FAO, 2010).

6.4 *Intra-SADC Agricultural Trade*

Intra-SADC trade has been historically low, and agricultural trade is no exception. Efforts to accurately document the extent of intra-regional trade, however, are constrained by paucity of data. This is particularly of concern for foodstuffs which are often underestimated or underreported due to unrecorded cross-border trade and smuggling. Table 6.1 and Table 6.2 indicate some level of intra-SADC trade in terms of intra-SADC maize exports and imports in 2008, respectively. Both tables confirm that most countries in the region traded with South Africa. Specifically, in 2008 South Africa exported maize to the majority of SADC countries, with the bulk of the exports destined for Zimbabwe. Zambia also exported the bulk of its maize exports to Zimbabwe in 2008.

Of relevance in shaping intra-SADC trade patterns is the existence of several bilateral trade agreements that were negotiated between SADC member states themselves. The bilateral agreements that were in place as of 2009 included: Botswana-Malawi; Botswana-South Africa; Botswana-Zimbabwe; Malawi-South Africa; Malawi-Zimbabwe; Mozambique-Malawi; South Africa-Namibia; South Africa-Mozambique; Zimbabwe-Namibia; and Zimbabwe-South Africa (Maringwa 2009). In addition, the existence of the Southern African Customs Union (SACU) determines trade relations among Botswana, Lesotho, Namibia, South Africa and Swaziland. All these trade agreements are meant primarily to foster deeper regional integration, which in turn is expected to result in overall economic development of member states and the region as a whole.

TABLE 6.1 INTRA-SADC MAIZE TRADE EXPORTS, 2008 (TONNES).

	Reporter/Exporter						
Partner/ Importer	Botswana	Malawi	Mauritius	Seychelles	South Africa	Tanzania	Zambia
Angola					7,375		672
Botswana							1,181
Congo, D.R.					987	363	16,175
Lesotho							200
Madagascar					1,407		
Malawi					545		3,407
Mauritius			200		34		
Mozambique					96,087		
Namibia							5,876
Seychelles			184		1,105		
South Africa	19	421					20,117
Swaziland							547
Tanzania		319			33,308		4,556
Zambia		3,100			7,088		
Zimbabwe	4	17,598			460,252		135,626

Source: 2010 FAOSTAT (FAO 2010).
Notes: The 'reporter' country is the same as the exporting country, while 'partner' refers to the importing country. Note that some countries do not report trade data as such that there could be underreporting which might lead to discrepancies between recorded imports and exports.

The launching of a Free Trade Area (FTA) in January 2008 is a major milestone in the integration process in the region, and is expected to increase intra-SADC trade through the removal of tariff and non-tariff barriers in the region. Its creation resulted in up to 85% of intra-SADC trade flows being duty-free, with the remaining 15% consisting of sensitive products, which were to be fully liberalized by 2012 (SADC 2008c). SADC sees the creation of a FTA as a step towards deeper regional integration, which is expected to culminate in a regional currency by 2018.

For the FTA to lead to substantive benefits, however, the region has to overcome a number of constraints that challenge its success. Examples of factors that constrain intra-SADC trade include the low diversification among SADC economies with, for example, countries like Angola and Botswana relying on a single sector: oil in Angola and diamond mining in Botswana. Although signaling the region's comparative advantage in primary products, the fact that the region is dependent on the export of primary goods is indicative of deep-rooted supply-side constraints. In particular, these trends suggest a persistent shortage of skills that are needed to add value to primary goods exports. Thus these supply-side constraints have to be dealt with in order to stimulate intra-regional trade

TABLE 6.2 INTRA-SADC MAIZE TRADE IMPORTS, 2008 (TONNES).

	Reporter/Importer								
Partner/ Exporter	Botswana	Madagascar	Malawi	Mauritius	South Africa	Swaziland	Tanzania	Zambia	Zimbabwe
Botswana									624
Madagascar				24					
Malawi					309		140		35,811
Mozambique			23,811				4,778		567
South Africa	34,991	1,410	377	46,131			217	845	344,710
Tanzania			134						
Zambia	567		3,603		10,959		8,287		112,023
Zimbabwe			7		364				

Source:2010 FAOSTAT (FAO, 2010).
Notes: The 'reporter' country is the same as the importing country, while 'partner' refers to the exporting country.

7. Poverty and Hunger Trends

The first Millennium Development Goal (MDG1) focuses on eradication of extreme hunger and poverty, with the specific aim of halving the 1990 poverty and hunger rates by 2015. In addition to endorsing the MDGs explicitly and within CAADP, all SADC countries have prioritized poverty reduction through SADC RISDP. Accordingly, this section assesses poverty and hunger trends in the region within the context of MDG1.

7.1 Poverty Trends

Table 7.1 and Table 7.2 report country and regional level annual poverty rates based on the national and international poverty headcount ratio, respectively. This is done only for countries for which data were available. The national poverty rate is defined as the percentage of the population living below the national poverty line and is based on population-weighted subgroup estimates from household surveys. The international poverty headcount ratio defines poverty rates as the percentage of the population living on less than USD1.25 a day

TABLE 7.1 NATIONAL POVERTY HEADCOUNT RATIO (%).

Country	1990	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	MDG12015 target
Lesotho	46.98	65.15	62.30	59.45	56.60	57.34	58.08	58.82	59.56	60.30	61.04	23.49
Madagascar	77.33	70.87	70.43	70.00	69.57	69.13	68.70	68.13	67.55	66.98	66.40	38.66
Malawi	54.00	53.00	53.00	53.00	52.00	51.00	52.40	45.00	40.00	39.18	38.35	27.00
Mauritius	6.98	7.58	7.64	7.70	7.76	7.82	7.88	7.94	8.00	8.06	8.12	3.49
Mozambique	81.96	61.60	57.85	54.10	54.10	51.96	49.81	47.67	45.53	43.39	41.24	40.98
South Africa	55.72	50.80	50.80	48.85	46.90	46.90	40.68	34.45	28.23	22.00	20.13	27.86
Tanzania	38.84	35.70	35.70	35.70	35.70	35.46	35.22	34.98	34.73	34.49	34.25	19.42
Zambia	70.00	71.00	70.00	69.00	68.00	68.00	66.00	64.00	63.63	63.25	62.88	35.00
Zimbabwe	23.98	42.18	44.00	45.82	47.64	49.46	51.28	53.10	54.92	56.74	58.56	11.99

Source: Authors' calculations based on observed poverty rates from the 2010 WDI (World Bank, 2010b).

at 2005 international prices. The poverty rates shown in Table 7.1 and Table 7.2 suggests that the national poverty lines for Lesotho, Malawi, South Africa, and Zambia are set at levels above the USD1.25 a day value used as the international poverty rate.

Based on nine countries that had data on national poverty rates, Table7.1 suggests that in general, the region has been experiencing declining national poverty rates since 1990. This decline has, however, been marginal. In 1990, Mozambique had the highest national poverty headcount ratio (close to 82%) while Mauritius (7%) had the least among the nine countries. Countries that have had a clear declining trend in national poverty rates between 1990 and 2009 are Madagascar (declining from 77 to 66 %), Malawi (from 54 to 38%), Mozambique (from 82 to 41%), South Africa (from 56 to 20), Tanzania (from 39 to 34%) and Zambia (from 70 to 63%). The rest of the countries seem to have experienced an upward trend in national poverty rates. Note that in spite of this slight increase in poverty in Mauritius, it still has the lowest national poverty rates across all periods. The rising trend in poverty in Zimbabwe could be partly attributed to the economic meltdown the country experienced following the launching and subsequent implementation of the country's Fast Track Land Reform Program in 2000. Thus the upward poverty trend in Zimbabwe underscores the importance of agriculture to the country's poverty reduction efforts, especially given that poverty is more concentrated in rural areas where small-scale farmers reside and, the fact, that there is a positive correlation between agro-ecological potential and poverty.

In terms of meeting the MDG1 target of halving the 1990 poverty rates, Table 7.1 indicates that none of the countries had, on average, managed to meet this target as of 2009 except for Mozambique and South Africa.

To ensure comparability of the poverty situation among countries, particularly in an effort to track countries' relative progress toward particularly the MDG1, the report also makes use of the 'USD1.25 a day at purchasing power parity at 2005 prices' international poverty line that adjusts for differences in the purchasing power of different currencies. Poverty rates based on this international poverty rate are presented in Table 7.2. As expected, using the international poverty rates presents a slightly different country and regional level picture. For instance, contrary to Table 7.1, Table 7.2 suggests that Lesotho has been having a clear downward trend in poverty rates, declining from 60 to 36% between 1990 and 2009. In the case of South Africa, Table 7.2 suggests a slight increase in poverty from 23% in 1990 to 29% in 2009. In addition, Malawi is revealed as the country that experienced the greatest decline in poverty, declining from an annual average of 95 to 66%.

TABLE 7.2 INTERNATIONAL POVERTY (USD1.25/DAY) HEADCOUNT RATIO (%).

Country	1990	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	MDG1 2015 target
Lesotho	60.3	45.0	44.5	43.9	43.4	42.1	40.8	39.5	38.2	36.9	35.6	30.2
Madagascar	73.7	79.3	76.3	74.2	72.1	69.9	67.8	67.4	67.0	66.6	66.2	36.8
Malawi	95.4	80.0	78.5	77.0	75.4	73.9	72.4	70.8	69.3	67.8	66.2	47.7
Mozambique	89.0	78.0	76.9	75.8	74.7	73.6	72.5	71.4	70.3	69.2	68.1	44.5
Seychelles	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0
South Africa	23.5	26.2	26.5	26.7	27.0	27.3	27.6	27.8	28.1	28.4	28.6	11.7
Swaziland	91.8	65.4	62.8	60.2	57.5	54.9	52.3	49.6	47.0	44.4	41.7	45.9
Zambia	62.7	59.1	60.9	62.8	64.6	64.3	64.4	64.5	64.6	64.8	64.9	31.3
SADC	36.9	38.9	24.9	24.7	24.5	24.2	23.9	23.7	23.5	23.4	23.2	18.5
SADC excl. SA	40.5	42.1	24.5	24.2	23.9	23.4	23.0	22.8	22.5	22.2	21.9	20.3
SADC-MI	19.2	19.8	19.9	19.9	20.0	20.0	20.0	20.0	20.0	20.0	20.1	9.6
SADC-LI	45.0	47.1	27.0	26.7	26.4	26.0	25.5	25.2	25.0	24.7	24.4	22.5

Source: Authors' calculations based on observed poverty rates from the 2010 WDI (World Bank, 2010b).

It is worthy to note that the low income countries have, on average, been experiencing a downward trend in international poverty rates. While international poverty rates range from 2 to 96% in 1990, the range was reduced to between 2 and 68% in 2009, with the lowest rate being recorded by Seychelles and the highest by Mozambique in both periods in 2009. Given that most countries initially (i.e., in 1990-95) had poverty rates higher than 50%, Figure 7.2 shows a positive outlook for poverty reduction in the region.

Looking at the MDG1 target, based on the international poverty rates, Table 7.2 shows that no country, among those for which poverty data were available, had managed to reach this target with the exception of Swaziland with a rate of 42% in 2009 against a target of 46%. Lesotho is revealed to be close to reaching the target with an international poverty rate of 36% in 2009 while the MDG1 target is 30%.

Taking a regional perspective, poverty trends seem to be declining in the region as a whole, although a slight increase is reported for the middle income group. The low income group experienced a notable reduction in poverty between 1990 and 2009.

7.2 Hunger Trends

Extreme poverty and hunger are pervasive issues in the SADC region, mainly due to the region's vulnerability to food insecurity which stems largely from erratic climatic conditions. In addition, the high prevalence of HIV/AIDS, among other challenges, continues to exacerbate food insecurity and poverty levels in the region through reduced productive capacity of countries since it is often the productive individuals that are affected by the pandemic. This report uses the prevalence of child malnutrition and adult undernourishment as indicators of the depth of hunger in each country. Prevalence of child malnutrition is the percentage of children under the age of five whose weight for age is more than two standard deviations below the median for the international reference population ages 0–59 months. The prevalence of undernourishment, on the other hand, is the percentage of the undernourished in the adult population.

Table 7.3 shows that, among the 11 countries for which data on child malnutrition were available, Madagascar had the highest prevalence in 2009, with close to 43% of children under the age of five being malnourished. South Africa had the least incidence of child malnutrition across all periods, with 13% in 2009. Comparing child malnutrition rates that prevailed in 1990 to those that prevailed in 2009, a declining trend is observed for all countries except Lesotho, Madagascar, South Africa and Zimbabwe.

The SADC region has experienced a slight decline in average child malnutrition rates, from 26% in 1990 to 22% in 2009. In general, the depth of child malnourishment is lower among middle than low income countries. In 2009, the prevalence of child malnourishment was 14 and 25% for the middle and low income group, respectively.

In terms of achieving the MDG1 target of halving 1990 hunger rates; this remains a challenge for nearly all countries. Only Angola managed to reduce child malnutrition rates to half of those observed in 1990, from 45% in 1990 to 20% in 2009.

The relatively high child malnutrition rates are reflected in under five mortality rates presented in Table 7.4. The mortality rates refer to the probability, per 1,000 live births, of a child born in a specific year or period dying before reaching the age of five, if subjected to age-specific mortality rates during that period.

TABLE 7.3 PREVALENCE OF CHILD MALNUTRITION.

Country	1990	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	MDG 2015 target
Angola	44.80	31.80	30.50	29.20	27.90	26.60	25.30	24.00	22.70	21.40	20.10	22.40
Congo, D.R.	35.64	31.65	31.10	31.15	31.21	31.26	31.31	31.36	31.42	31.17	30.92	17.82
Lesotho	15.68	17.90	18.38	18.85	19.33	19.80	16.60	16.93	17.27	17.60	17.93	7.84
Madagascar	38.63	33.10	35.30	37.50	39.70	41.90	42.13	42.37	42.60	42.83	43.07	19.32
Malawi	28.15	25.40	23.65	21.90	21.95	22.00	21.26	20.52	20.04	19.56	19.09	14.08
Mozambique	30.65	26.00	25.23	24.47	23.70	22.46	21.22	19.98	18.74	17.50	16.77	15.33
Namibia	27.36	24.00	23.07	22.14	21.21	20.29	19.36	18.43	17.50	16.92	16.34	13.68
South Africa	7.75	11.50	11.51	11.51	11.52	11.81	12.10	12.39	12.68	12.96	13.25	3.88
Tanzania	29.88	28.13	26.87	25.60	24.33	23.07	21.80	21.26	20.72	20.18	19.65	14.94
Zambia	24.70	24.33	23.67	23.00	21.50	20.00	19.77	19.54	19.32	19.00	18.67	12.35
Zimbabwe	15.10	14.05	15.10	16.15	17.20	16.90	16.60	16.70	16.80	16.90	17.00	7.55
SADC	26.28	24.39	23.94	23.75	23.61	23.42	23.07	22.87	22.69	22.42	22.19	13.14
SADC excl. SA	31.21	27.63	27.05	26.77	26.56	26.21	25.67	25.32	24.99	24.57	24.19	15.61
SADC-MI	16.22	16.20	15.62	15.37	15.12	15.06	14.87	14.78	14.67	14.56	14.45	8.11
SADC-LI	30.84	27.93	27.52	27.32	27.19	26.91	26.46	26.19	25.93	25.57	25.26	15.42
SSA	31.67	28.97	28.48	28.06	27.67	27.24	26.81	26.53	26.24	25.89	25.58	15.83

Source: Authors' calculations based on observed poverty rates from the 2010 WDI (World Bank, 2010b).

TABLE 7.4 UNDER-FIVE MORTALITY RATES (PER 1,000 BIRTHS).

Country	1990	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Angola	258	212	206	200	194	188	182	176	171	166	161
Botswana	60	99	92	86	79	72	66	61	59	59	57
Congo, D.R.	199	199	199	199	199	199	199	199	199	199	199
Lesotho	93	124	122	120	118	116	114	110	104	91	84
Madagascar	167	100	95	90	84	79	74	69	65	61	58
Malawi	218	164	158	152	146	140	134	128	122	115	110
Mauritius	24	19	19	18	17	16	15	16	16	17	17
Mozambique	232	183	179	175	171	166	162	158	152	147	142
Namibia	73	76	73	70	67	64	61	57	54	50	48
Seychelles	15	14	13	13	13	13	13	13	13	13	12
South Africa	62	77	78	78	78	78	79	75	69	65	62
Swaziland	92	105	105	105	106	106	106	99	87	77	73
Tanzania	162	139	136	133	129	126	123	119	116	111	108
Zambia	179	166	164	162	159	157	155	153	150	145	141
Zimbabwe	81	116	113	111	109	106	104	101	97	93	90
SADC	157	146	144	142	140	138	136	133	130	127	124
SADC excl. SA	182	163	160	157	155	152	149	147	144	140	138
SADC-MI	103	108	106	105	104	103	102	98	93	89	85
SADC-LI	181	162	160	157	155	152	150	147	145	142	139
SSA	175	155	152	149	145	142	139	135	132	128	125

Source: 2010 WDI (World Bank, 2010b).

The DRC is shown to have the highest under-five mortality rates, estimated at 199% per 1,000 live births in 2009. Similar to the trends in child malnutrition, under-five mortality rates have been declining for the region as a whole and this holds even when South Africa is excluded from the group. The mortality rates observed among middle income countries are far below those for the low income group. For instance, in 2009 the annual average under-five mortality rate was 85% per 1,000 live births in the middle income group while it was 139% per 1,000 live births in the low income group.

The prevalence of adult undernourishment presented in Table 7.5 shows that in 2009, DRC had the most severe depths of adult undernourishment at 74%, increasing from 24% in 1990. The high malnutrition and under-five mortality rates in DRC could be due to conflict and political instability in the country.

In addition, Table 7.5 indicates that adult undernourishment has been on the rise in the SADC region, increasing from 30% in 1990 to 38% in 2009. Excluding South Africa further increases the prevalence of adult malnutrition to 36% in 1990 and 45% in 2009. Low income countries are driving the high prevalence of adult undernourishment observed at the regional level: while the prevalence was 14% among middle income countries in 2009, it was around 47% in the low income group. SADC low income countries have higher adult undernourishment rates than SSA.

TABLE 7.5 PREVALENCE OF ADULT UNDERNOURISHMENT.

Country	1990	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Angola	69.33	54.40	53.20	52.00	49.80	47.60	45.40	43.20	41.00	39.33	37.67
Botswana	19.33	25.80	26.40	27.00	26.60	26.20	25.80	25.40	25.00	25.33	25.67
Congo, D.R.	23.67	64.80	67.40	70.00	69.80	69.60	69.40	69.20	69.00	71.67	74.33
Lesotho	15.13	13.60	13.80	14.00	14.00	14.00	14.00	14.00	14.00	13.93	13.87
Madagascar	32.93	31.60	29.80	28.00	27.40	26.80	26.20	25.60	25.00	24.53	24.07
Malawi	47.27	32.40	31.20	30.00	29.60	29.20	28.80	28.40	28.00	26.87	25.73
Mauritius	7.27	5.40	5.20	5.00	5.00	5.00	5.00	5.00	5.00	4.87	4.73
Mozambique	61.80	48.40	47.20	46.00	44.40	42.80	41.20	39.60	38.00	36.60	35.20
Namibia	30.33	24.20	22.60	21.00	20.60	20.20	19.80	19.40	19.00	18.33	17.67
Seychelles	11.53	8.40	8.20	8.00	7.80	7.60	7.40	7.20	7.00	6.73	6.47
South Africa	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Swaziland	11.20	18.80	18.40	18.00	18.00	18.00	18.00	18.00	18.00	18.40	18.80
Tanzania	27.20	39.80	39.40	39.00	38.00	37.00	36.00	35.00	34.00	34.40	34.80
Zambia	39.60	42.20	42.60	43.00	43.00	43.00	43.00	43.00	43.00	43.20	43.40
Zimbabwe	41.33	43.00	42.00	41.00	38.80	36.60	34.40	32.20	30.00	29.33	28.67
SADC	29.86	38.84	39.02	39.27	38.73	38.20	37.66	37.11	36.56	37.03	37.51
SADC excl. SA	36.48	47.33	47.52	47.72	46.95	46.17	45.40	44.61	43.83	44.31	44.79
SADC-MI	19.66	17.23	17.01	16.85	16.48	16.10	15.71	15.29	14.86	14.55	14.23
SADC-LI	34.48	48.15	48.47	48.81	48.12	47.43	46.74	46.05	45.35	46.05	46.74
SSA	34.80	31.80	31.40	31.00	30.40	29.80	29.20	28.60	28.00	27.60	27.20

Source: 2010 WDI (World Bank, 2010b).

7.3 Global Hunger Index

The hunger situation in each country and the region is further described via the Global Hunger Index (GHI), which is a multidimensional statistical tool that combines three equally weighted indicators: 1) the prevalence of the undernourished as a percentage of the population; 2) the prevalence of underweight children under the age of five; and 3) the mortality rate of children under the age of five. The Index was adapted and further developed by the International Food Policy Research Institute (IFPRI) with the aim of comprehensively measuring and tracking global hunger. It ranks countries on a 100 point scale, with zero being the best score ('no hunger') and 100 being the worst. The GHI is constructed in such a way that values less than 4.9 reflect 'low hunger', values between 5 and 9.9 reflect 'moderate hunger', values between 10 and 19.9 indicate a 'serious', values between 20 and 29.9 are 'alarming', and values exceeding 30 are 'extremely alarming' hunger problems (von Grebmer et al. 2010).

The data used for the 2010 GHI cover the period 2003 to 2008. The index for each SADC country and the region are presented in Figure 7.1. Half of the 14 countries for which data were available can be said to have 'alarming' hunger problems based on the 2010 GHI. These include Angola (with a GHI of 27), DRC (41), Madagascar (28), Mozambique (24), Tanzania (21), Zambia (25) and Zimbabwe (21). Five of the remaining seven countries are considered to have 'serious' hunger problems: Botswana (13), Lesotho (12), Malawi (18), Namibia (14) and Swaziland (11). The rest, — Mauritius and South Africa — have a GHI of 7 and thus are each deemed to have 'moderate' hunger problems. At the regional level, with a GHI of 24, SADC is considered to suffer from 'alarming' hunger problems, and the situation remains the same (although it shifts closer to 'extremely alarming' with a GHI of 28) when South Africa is excluded from the group. Disaggregating the region into middle and low income groups, however, indicates that the depth of hunger differs by income levels. It shows that middle income groups have 'serious' hunger problems while low income group has 'alarming' hunger rates which border on 'extremely alarming' (GHI of 29).

The high prevalence of hunger in DRC (GHI of 41) reflect the worsening undernourishment situation in the country since 1990 following the start of civil conflict that has led to an economic collapse, massive displacement of people and a chronic state of food insecurity. In fact, DRC has the highest proportion of undernourished people and one of the highest child mortality rates in the world (von Gebremer et al. 2010).

Thus, although some countries experienced a reduction in GHI (e.g., Angola and Mozambique), overall, the hunger situation in the region remains dire. This is of particular concern for low income countries in the region that have, as a group, experienced an increase in GHI between 1990 and 2010. Economic performance and hunger have been shown to be inversely related whereby richer countries (i.e., countries with high levels of gross national income (GNI) per capita) are often found to have low 2010 GHI scores, and vice versa (von Grebmer et al. 2010).[17]

Sub-Saharan Africa (SSA) had a GHI of 21 which is considered a reflection of alarming hunger problems. In describing the global hunger situation, von Grebmer et al. (2010) show that the highest regional GHI scores are found in SSA (along with South Asia), and they argue that this is due to low government effectiveness, conflict, political instability, and high rates of HIV/AIDS.

Von Grebmer et al. (2010) indicate that the major contributor to the world GHI score is child underweight, accounting for nearly half of the world GHI score although the percentage of the underweight among children under the age of five is only one of three elements in the GHI. Given that more than 90% of the world's stunted children (children whose height is low for their age) live in Africa and Asia, where rates of stunting are 40% and 36% respectively, there is need for a coordinated effort to end hunger in SSA. Governments need to invest in nutrition interventions to reduce child under-nourishment. This should be accompanied by policies that target the underlying causes of under-nutrition such as food insecurity, lack of access to health services, and poor caring and feeding practices,

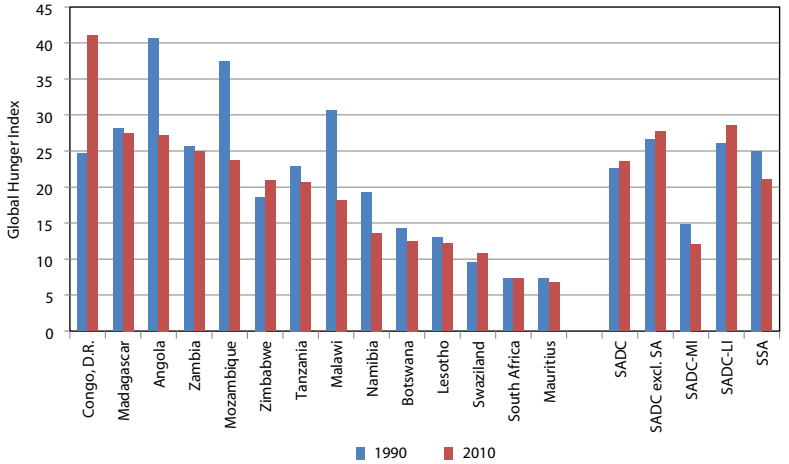


FIGURE 7.1 GLOBAL HUNGER INDEX.
Source: Calculations based on von Grebmer et al. (2010).

[17]These relationships do not always hold, however. Other factors such as conflict, disease, inequality, poor governance, and gender discrimination are factors that can push a country's level of hunger higher than what would be expected based on its income. In contrast, pro-poor economic growth, strong agricultural performance, and increasing gender equity can reduce hunger below what would be expected based on income.

which are exacerbated by poverty and gender inequity. Particular to the SADC region is the need for poverty-reduction strategies focused on reducing income and gender inequalities as these will help improve early childhood nutrition.

7.4 Are SADC Countries on Track to Meet MDG1 Targets?

Several methods can be used to judge whether a country is on track to achieve targets set by MDG1. The underlying principle is to forecast, based on certain assumptions, poverty trends until 2015 to have an idea of whether a particular country will reach the target. This report performs simple linear poverty and child malnutrition trend analyses, based on observed actual rates, to predict future poverty and child malnutrition movements based on past data.

7.4.1 Halving 1990 International Poverty Rates

Figure 7.2 illustrates that most SADC countries (for which international poverty data for the years 1990 to 2009 were available) are clearly off-track to reaching the MDG1 target of halving 1990 poverty rates by 2015. Each figure shows, in addition to the observed poverty rates, the current trend line based on actual or observed poverty rates and the MDG1 target of halving 1990 international poverty rates. Four countries have actual international poverty trend lines that are declining: Lesotho, Malawi, Mozambique and Swaziland. In fact, Swaziland has reached and surpassed the MDG1 target to halve its 1990 poverty rate. Starting from a poverty rate of 92%, Swaziland has made a lot of progress towards achieving halving of poverty by 2015. It had reached 42% by 2009 (which is below half of the 1990 poverty rate). In the case of Lesotho, Malawi and Mozambique, however, their ability to meet the MDG1 target hinges on how fast the decline in poverty will be in the future. Lesotho, starting with a poverty rate of around 60% in 1990 and having poverty rate of close to 36% in 2009, appears to have a higher probability of reaching the target of halving 1990 poverty rates by 2015 compared to Malawi and Mozambique.

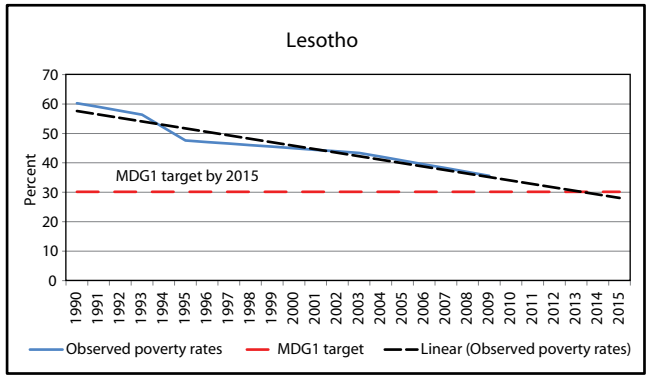
7.4.2 Halving 1990 Child Malnutrition Prevalence

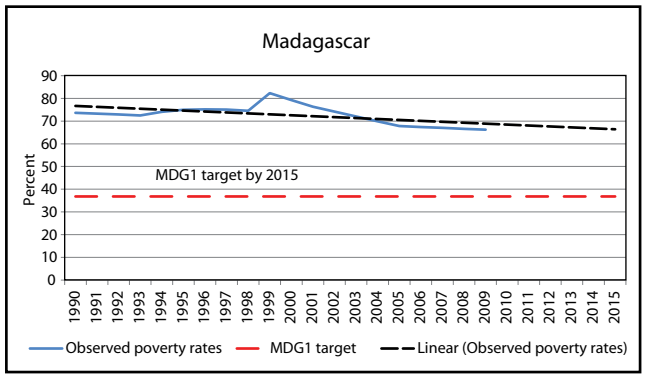
Figure 7.3 presents the results of trend analyses of the prevalence of child malnutrition. The aim is to assess whether countries are on track to meeting the MDG1 target of halving 1990 child malnutrition rates by 2015. Each figure shows, in addition to the observed child malnutrition prevalence, the current trend line based on actual or observed child malnutrition rates and the MDG target of halving 1990 child malnutrition rates by 2015.

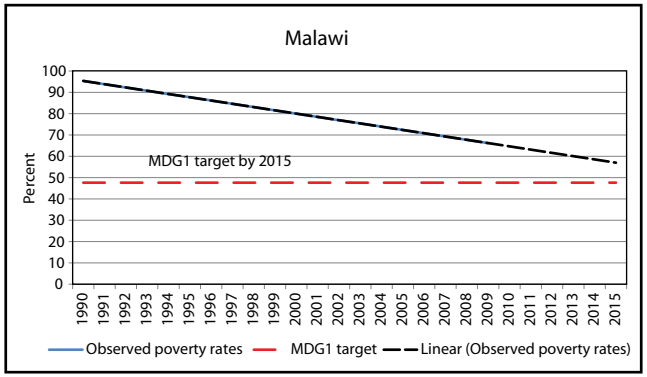
Countries for which the actual trend line is clearly declining are Angola, Malawi, Mozambique, Namibia, Tanzania and Zambia. In fact, Angola has reached and surpassed the target of halving its 1990 child malnutrition prevalence. Angola started off with a prevalence rate of 44.8% in 1990 and this decreased to 20.1% in 2009. Whether the rest of the countries with declining trends will be able to reach the 2015 target will depend on how fast the future decline is. The actual trend lines suggest that among the rest of the countries with declining trend, the country with the greatest probability of halving its 1990 child malnutrition target is Mozambique.

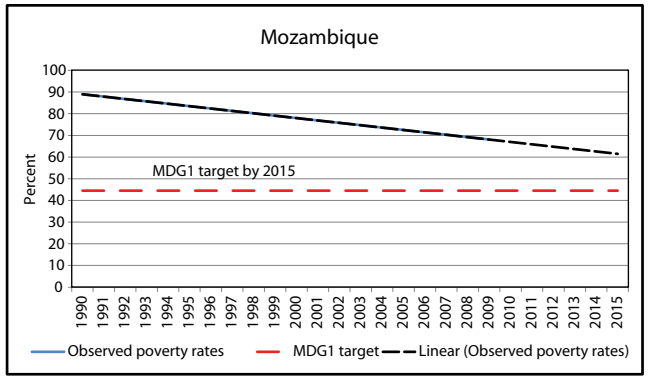
Taken together, Figure 7.2 and Figure 7.3 suggests that, Malawi and Mozambique are the countries for which actual or observed trendlines for both the international poverty rate and the prevalence of child malnutrition are clearly declining. Although not a guarantee for being able to meet the MDG1 target of halving both the 1990 poverty and hunger levels, this suggests that, based on past data, Malawi and Mozambique have higher chances of reaching the MDG1 target –in terms of both international poverty rates and hunger prevalence– than the rest of the SADC countries. Whether this actually happens will depend on how fast the future decline in poverty and child malnutrition in these countries will be.

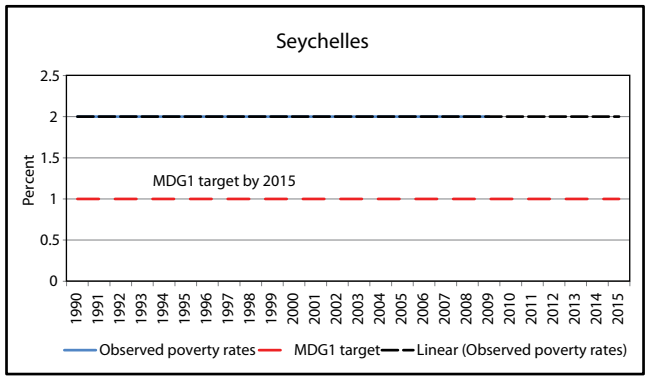
Factors limiting the achievement of MDG1 include, among others, economic growth, employment and nutrition. In assessing progress SADC countries have made towards achieving MDG1, it is important to acknowledge the role of external factors in affecting this progress. Particular to the 2003-09 period, hunger and poverty levels could have been exacerbated by the global food and financial crises as well as climate change. The 2010 MDG report suggests that the global economic crisis will cause poverty rates to be higher in 2015 and even beyond 2020 than they would have been had the world economy grown steadily at its pre-crisis pace (UN 2010). Frequent dry spells and flooding in some areas (for example increased flooding incidents in Mozambique), a sign of climate change, are having adverse effects particularly in rural areas where small-scale subsistence farming is prevalent and where poverty is concentrated in most SADC countries.

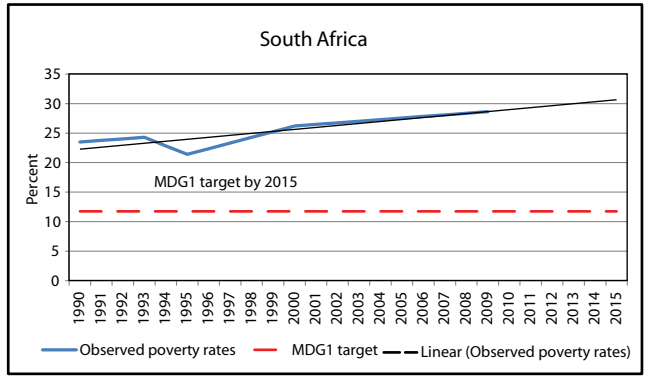


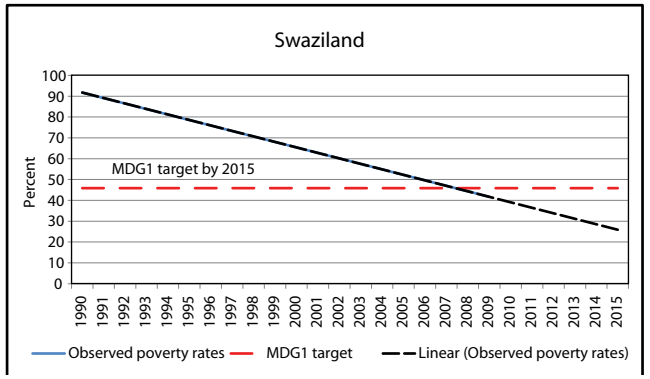












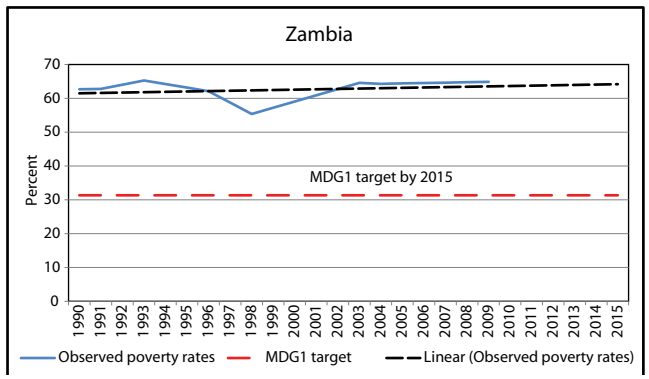


FIGURE 7.2 INTERNATIONAL POVERTY (USD1.25/DAY) HEADCOUNT RATIO AND MDG1.
Source: Authors' calculations based on 2010 WDI (World Bank, 2010b).

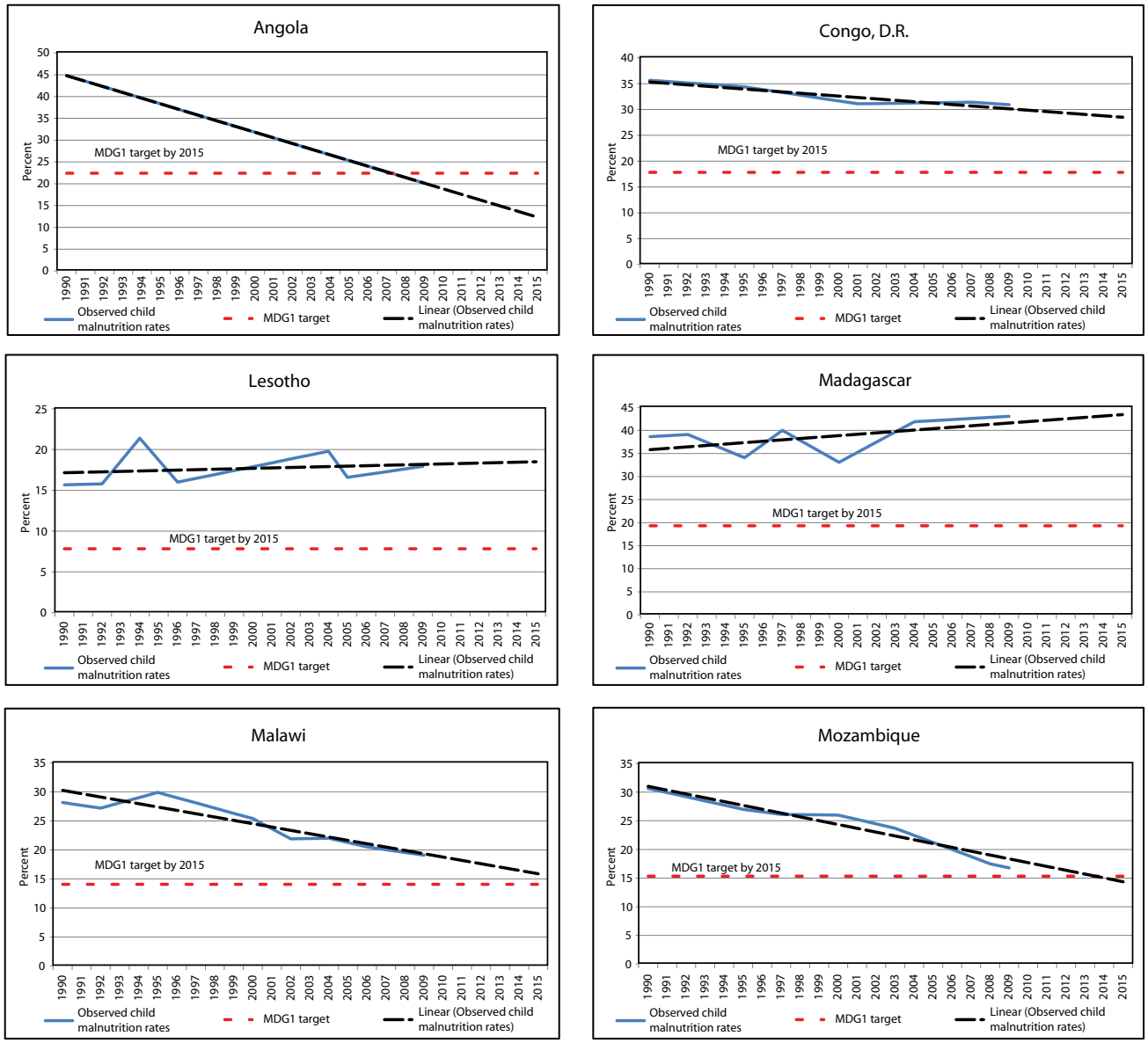
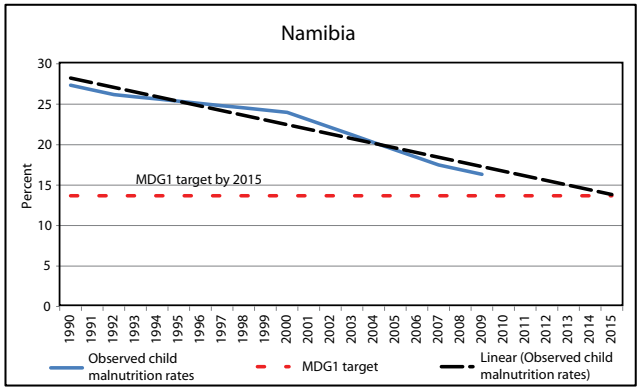
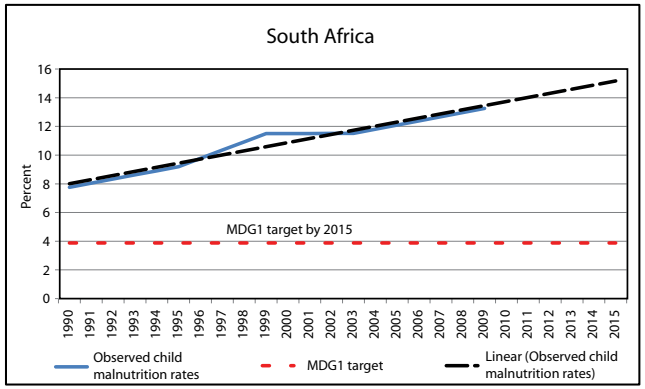
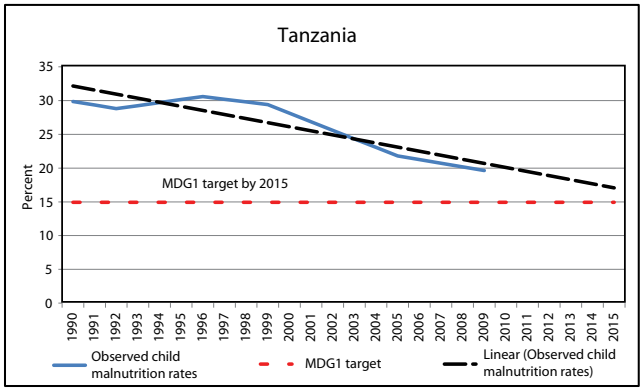
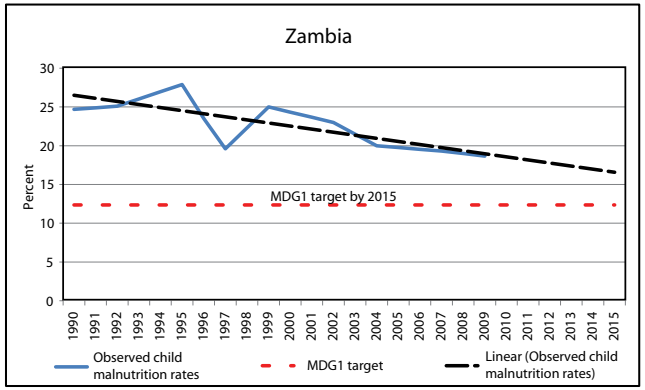


FIGURE 7.3 CHILD MALNUTRITION PREVALENCE AND MDG1.
Source: Authors' calculations based on UNSD (2010) and 2010 WDI (World Bank, 2010b).









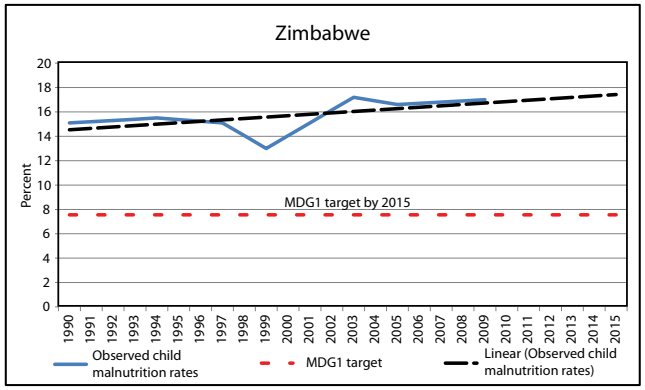


FIGURE 7.3 CHILD MALNUTRITION PREVALENCE AND MDG1.
Source: Authors' calculations based on UNSD (2010) and 2010 WDI (World Bank, 2010b).

8. Conclusion and Policy Recommendations

This report highlighted recent agricultural growth trends and outlook in the Southern African Development Community (SADC) region. It paid special attention to the national and regional performance against continentally and regionally shared goals and targets, particularly the Comprehensive Africa Agriculture Development Programme (CAADP), the Agriculture Gross Domestic Product (GDP) annual growth target of at least 6% and the commitments made under the Maputo Declaration in 2003 in which African Heads of States committed to allocating at least 10% of their national budgetary resources to agriculture. It also assessed progress made towards the implementation of the CAADP process by SADC member states.

The findings revealed that progress in implementation of CAAD in the SADC region has been slow, and that, as of June 2011, only five countries namely DRC, Malawi, Tanzania Swaziland and Zambia of the 15 SADC member states had completed roundtables and signed their CAADP Compacts. Four of the five countries that signed the CAADP Compacts belong to the low income group, suggesting that the process of implementing CAADP has been faster among low income countries, where agriculture constitutes a large share of the economy and is the key strategic sector for poverty and hunger reduction than in middle income countries. A key step a country can take to demonstrate its commitment towards pursuing agricultural-led development and the desire to meet the CAADP targets, is initiating the CAADP process. The current situation whereby majority of SADC countries have lagged behind in initiating the CAADP process and signing of their Compacts, is a concern which calls for SADC to intensify its mobilization of member states to launch the process.

Investment in agriculture is expected to stimulate economic growth and increase food security and reduce poverty. In terms of CAADP, the 6% annual agricultural GDP growth target is supposed to be achieved by allocating at least 10% of budgetary resources to the agriculture sector. The experience in SADC region revealed that the average share of agriculture in total public expenditure ranged between 3.3% and 3.7% and has been lower than the 10% target proposed by the Maputo Declaration. Overall, low income countries with an annual average allocation of 4.4 to 5% have higher shares of agriculture expenditures in total public expenditure than middle income countries, which have an annual average allocation of 1.3 to 1.8%. These results suggest that low income countries are showing greater commitment towards achieving the Maputo Declaration target than middle income countries. This is likely to happen given that agriculture is a large contributor to GDP and a greater proportion of the population depend on agriculture for income, food and employment in low income countries than in middle income countries. However, the concern remains that both low income and middle income countries have

failed to consistently achieve the Maputo Declaration target, which implies that the sector is under funded.

The consequence of failing to reach the Maputo Declaration target is that the investment in agriculture would be insufficient to generate agricultural growth that can reach the 6% CAADP target and achieve the first Millennium Development Goal of halving hunger and poverty by 2015. The findings revealed that in post-2003 period (i.e., 2003-09), only three countries in the region (Angola, Mozambique and Namibia) reached the CAADP 6 % target at some point. However, the SADC annual agricultural GDP growth has remained below 6% across all periods. In order for SADC countries to accelerate agricultural growth rate and reach the 6% CAADP target and MDG1, there is a need to increase agriculture investment to the Maputo Declaration target in the subsectors with high growth potential and with a pro-poor focus. To guide countries in their investment decisions, a more detailed analysis would be required using economy-wide models (e.g., computable general equilibrium [CGE] model) which can assess the aggregate public agriculture expenditure required to support agricultural growth that is necessary to achieve CAADP and MDG1 targets. Emerging evidence in the literature has shown that in order to meet the CAADP 6% growth target, the required spending on agriculture has to far exceed the 10% Maputo Declaration target (Benin et al. 2008).

Significant positive correlations were found between AgGDP and investments in core functions such as extension, research, production support, livestock services, forestry and common non-planned expenses in Mozambique. The significant positive correlations, without implying any cause-effect relationships, suggest that increased investment in the listed functions is positively related to AgGDP. However, to gain a deeper understanding of the effects of investment and other factors on AgGDP growth, further studies using econometric models and economy-wide models are recommended.

Agricultural performance in terms of productivity indicators such as cereal yield and fertilizer use levels has not been impressive. The average yield per hectare for major cereal crops such as maize remains lower than the SADC-RISDP target of 2,000 kg/ha in most SADC countries except Mauritius, Madagascar and South Africa. Fertilizer use rates in the SADC region fail to reach the SADC-RISDP target of 65 kg/ha, except for Mauritius which has the highest fertilizer use rate, averaging 275 kg/ha during 2003-2009. Among other factors low fertilizer use and erratic rainfall have contributed to low agricultural productivity in the region. Although the region experienced an increasing trend in total cereal production, this was driven more by area expansion than by productivity improvement, the latter of which has remained low. Furthermore, cereal production per capita has been declining since the early 1990s, implying that the growth rate in cereal production has been lower than population growth rate, thereby resulting in a decline in cereal production per capita and a reduction in food security over time. To improve agricultural productivity growth and enhance food security in the region, SADC countries should accelerate investment in productivity-enhancing technologies such as improved seed, fertilizer, irrigation development and market infrastructure development.

Agricultural trade performance revealed that the SADC region moved from being a net exporter in the period 1990-2003 to a net importer of agricultural products in 2003-07. The middle income countries, Angola in particular, were driving the negative net trade recorded in the SADC region. The low income countries were net exporters across all periods. South Africa was the largest net exporter followed by Malawi. While the largest net importers were Angola and DRC. Overall the share of agricultural exports in total exports and the share of agricultural imports in total imports were greater in low income countries than in middle income countries in the SADC region.

Regarding commodity trade, majority of SADC countries were net importers of food products such as maize and livestock products namely, chicken, beef, pig and sheep meat. The reliance on imported food grains and livestock products is likely to remain a problem in the foreseeable future in the SADC region, if interventions are not taken to reverse the situation. This calls for policy attention to increase productivity of cereal crops like maize and livestock. The launching of a Free Trade Area (FTA) in January 2008 is a major milestone in the

integration process in the region and, is expected to increase intra-SADC trade through the removal of tariff and non-tariff barriers in the region. As per agreed tariff phase down schedules, 85% of all products should be trading at zero tariff by 2008 with the remaining 15% consisting of sensitive products to be fully liberalized by 2012 (SADC 2008c). The emerging intra-SADC agricultural trade is mostly in food grains (maize), with South Africa as the largest exporter to other countries in the region and Zimbabwe being a larger importer in 2008. Zambia also exported surplus maize to Zimbabwe in 2008. Since most SADC countries are agriculture-based and food dominates agricultural trade, enhanced trade in agricultural products potentially provides a tool for fighting poverty, promoting integration and increasing economic growth and welfare in the region (ESRF 2003). Thus there is a need for policies and targeting of investments to enhance the benefits of regional trade through productivity improvement, value-added processing of exportable primary goods and diversification.

With regard to the attainment of the first MDG of halving 1990 poverty and hunger rates by 2015, linear trend analyses indicated that for Malawi and Mozambique the international poverty rate and the prevalence of child malnutrition were declining. This suggests that, based on past data, Malawi and Mozambique have higher chances of reaching the MDG1 target than the rest of the SADC countries. It should be pointed that in the post-2003 period at some point, Malawi and Mozambique are among the few SADC countries which have surpassed the 10% Maputo Declaration target in terms of expenditure or budget allocation, and also surpassed the CAADP 6% agricultural growth rate. Thus it is not surprising that these two countries are those which are likely to reach the MDG1 target by 2015.Whether this actually happens will depend on making the right investments and generating growth of about 6% to reduce poverty and hunger to the 2015 targets. The type of analysis required to inform countries on the feasibility of achieving MDG1 targets based on CAADP growth rates and investment scenarios, is best done using economy-wide models (Lambert and MacNeil 2009; Thurlow et al. 2008)) and is beyond the scope of this study, but could be considered in further studies.

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ANNEXES

Annex A: Enabling Environment

TABLE A1. GDP PER CAPITA (CONSTANT 2000 USD).

Region/Country	Annual average (1990-95)	Annual average % change (1990-95)	Annual average (1995-03)	Annual average % change (1995-03)	2003	Annual average (2003-09)	Annual average % change (2003-09)
Angola	628.16	-9.68	632.66	3.19	730.04	1,038.75	12.24
Botswana	2,608.47	0.86	3,153.86	4.38	3,762.96	4,038.80	1.48
Congo, D.R.	152.08	-11.52	95.08	-4.93	83.25	90.70	2.71
Lesotho	365.53	3.29	412.65	1.01	436.53	479.93	3.39
Madagascar	260.15	-2.90	244.47	-0.39	233.50	253.56	2.30
Malawi	133.87	0.28	142.24	-1.73	130.15	144.45	4.24
Mauritius	2,837.09	3.66	3,620.90	3.61	4,100.21	4,489.81	3.26
Mozambique	183.72	0.15	231.16	5.16	279.08	324.59	5.05
Namibia	1,945.73	1.74	2,116.18	1.08	2,291.94	2,551.26	3.03
Seychelles	6,008.77	1.77	7,002.63	1.96	6,973.28	7,477.71	2.58
South Africa	2,989.05	-1.26	3,031.55	0.62	3,177.20	3,507.92	3.09
Swaziland	1,199.51	0.47	1,313.97	2.17	1,430.39	1,504.58	1.34
Tanzania	255.56	-1.68	266.25	2.18	297.05	334.07	3.95
Zambia	352.64	-3.92	315.72	0.28	328.42	362.84	3.40
Zimbabwe	617.08	-1.33	609.45	-3.04	505.89	202.60	-4.42
SADC	890.54	-2.49	879.61	0.48	908.07	976.58	2.35
SADC excl. SA	346.17	-3.64	341.85	0.79	355.66	386.25	2.97
SADC-MI	2,349.47	-1.64	2,401.16	0.90	2,535.64	2,826.11	3.50
SADC-LI	242.78	-3.96	225.15	-0.53	221.69	220.84	0.06
SSA	501.39	-1.72	507.07	0.69	528.79	574.83	2.66

Source: Authors' calculations based on World Bank (2010b).

TABLE A2. GDP GROWTH (ANNUAL %).

Region/Country	Annual average % growth (1990-1995)	Annual average percentage point change (1990-1995)	Annual average % growth (1995-2003)	Annual average percentage point change (1995-2003)	2003	Annual average % growth (2003-2009)	Annual average percentage point change (2003-2009)
Angola	-3.20	2.14	7.06	-0.89	9.66	12.48	-0.51
Botswana	4.52	-0.47	6.11	0.23	7.07	2.99	-2.05
Congo, Dem. Rep.	-7.03	1.45	-1.29	0.64	5.30	5.59	-0.52
Lesotho	4.86	-0.49	2.97	0.05	3.38	4.06	-0.30
Madagascar	0.29	-0.28	2.67	1.01	0.79	5.52	-1.56
Malawi	3.88	2.21	3.69	-1.31	2.51	6.96	0.24
Mauritius	5.27	-0.58	4.62	-0.08	3.84	3.91	-0.25
Mozambique	3.15	0.34	7.45	0.42	7.57	7.33	0.05
Namibia	4.55	0.32	3.54	0.02	7.10	5.07	-0.54
Seychelles	3.58	-1.56	2.63	-0.63	-2.51	1.17	-0.29
South Africa	0.69	0.69	2.94	-0.02	3.72	3.68	-0.79
Swaziland	3.93	-1.36	3.70	0.12	2.74	2.54	-0.58
Tanzania	2.67	-0.70	4.79	0.26	6.55	6.66	-0.03
Zambia	-1.15	-0.47	2.74	1.06	4.61	5.83	0.11
Zimbabwe	2.32	-1.37	-1.44	-1.32	-6.20	-6.35	0.69
SADC	0.58	0.55	3.14	-0.01	4.04	4.16	-0.61
SADC excl. South Africa	0.34	0.25	3.61	0.00	4.74	5.20	-0.25
SADC middle income	0.76	0.67	3.33	-0.05	4.26	4.37	-0.78
SADC low income	-0.21	0.04	2.33	0.15	3.04	3.28	0.30
Sub-Saharan Africa	1.82	0.86	3.83	0.14	5.37	5.13	-0.51

Source: Authors' calculations based on World Bank (2010b).

TABLE A3. ANNUAL INFLATION (GDP DEFLATOR) (%).

Region/Country	Annual average % growth (1990-1995)	Annual average percentage point change (1990-1995)	Annual average % growth (1995-2003)	Annual average percentage point change (1995-2003)	2003	Annual average % growth (2003-2009)	Annual average percentage point change (2003-2009)
Angola	-1.64	0.32	9.02	0.72	19.12	16.46	-6.18
Botswana	3.10	-1.96	1.51	2.44	11.61	7.04	-5.46
Congo, Dem. Rep.	3.60	-2.93	1.64	0.05	6.51	4.47	-1.12
Lesotho	5.81	-1.07	0.58	4.41	19.86	11.31	-6.14
Madagascar	4.34	-3.05	4.94	1.13	0.10	6.34	-3.02
Malawi	-3.74	-2.12	8.44	-1.96	16.83	2.51	3.75
Mauritius	5.32	-0.82	0.80	0.58	8.03	5.10	-3.85
Mozambique	-2.91	-0.85	2.08	0.45	4.23	5.38	-1.90
Namibia	3.71	-0.45	2.15	4.67	16.84	11.09	-5.86
Seychelles	5.06	-1.30	1.80	0.28	6.78	0.75	-3.02
South Africa	2.80	3.59	0.75	4.89	20.70	11.61	-6.96
Swaziland	12.60	-5.84	0.50	3.88	20.17	12.28	-7.36
Tanzania	0.76	4.50	4.86	-1.60	-0.15	5.32	-0.17
Zambia	-0.59	4.84	0.82	0.56	9.49	14.10	-4.97
Zimbabwe	-4.41	0.79	13.12	-8.17	9.08	-39.83	10.38
SADC	1.76	2.56	0.70	2.08	14.75	9.13	-4.24
SADC excl. South Africa	-0.40	-0.04	2.80	-1.66	6.75	6.74	-0.61
SADC middle income	2.46	2.99	0.93	4.30	19.53	11.90	-7.12
SADC low income	-1.46	0.39	3.39	-3.54	1.93	1.88	3.01
Sub-Saharan Africa	0.38	2.26	1.59	1.06	13.07	8.85	-4.02

Source: Authors' calculations based on World Bank (2010b).

TABLE A4. GENERAL GOVERNMENT GROSS DEBT AS A SHARE OF GDP (%).

Region/Country	Annual average (2000-2003)	Annual average % change (2000-2003)	2003	Annual average (2003-2009)	Annual average % change (2003-2009)
Angola	86.35	-17.13	62.79	37.30	-8.68
Botswana	8.43	7.59	9.11	8.68	0.33
Congo, Dem. Rep.	199.55	-15.84	198.88	155.16	-6.35
Lesotho	102.10	-11.03	78.15	60.70	-6.38
Madagascar	115.50	-6.25	104.05	59.40	-20.37
Malawi	132.45	8.97	129.28	73.77	-22.60
Mauritius	51.53	10.52	55.92	52.27	-3.75
Mozambique	112.01	-15.16	82.83	52.85	-21.16
Namibia	22.22	6.74	24.74	21.98	-9.24
Seychelles	150.17	4.93	159.78	142.61	-3.81
South Africa	39.05	-5.99	35.68	31.50	-4.48
Swaziland	21.48	-2.78	20.09	16.99	-3.73
Tanzania	76.74	-4.58	76.00	60.88	-11.04
Zambia	206.43	-12.59	177.43	75.16	-30.84
Zimbabwe				74.11	12.54
SADC	50.12	-0.29	48.52	38.85	-7.12
SADC excl. South Africa	82.19	1.77	79.45	106.85	9.45
SADC middle income	41.24	-6.39	37.17	31.75	-4.65
SADC low income	71.98	180.34	128.68	74.66	-16.88
Sub-Saharan Africa	69.41	-3.83	63.72	45.58	-10.81

Source: Authors' calculations based on IMF (2010).

TABLE A5. GENERAL GOVERNMENT REVENUE AS SHARE OF GDP (%).

Region/Country	Annual average (2000-2003)	Annual average % change (2000-2003)	2003	Annual average (2003-2009)	Annual average % change (2003-2009)
Angola	44.31	-10.24	38.99	41.51	0.32
Botswana	38.57	-5.17	36.50	35.94	-2.30
Congo, Dem. Rep.	7.40	24.51	9.84	17.05	15.17
Lesotho	48.32	-1.11	49.54	57.63	5.05
Madagascar	13.73	-2.96	15.28	22.34	-3.96
Malawi	18.74	36.45	20.93	28.06	5.01
Mauritius	18.18	0.21	18.52	19.56	2.11
Mozambique	22.12	0.02	21.41	23.38	4.70
Namibia	27.47	-2.85	26.34	27.85	3.06
Seychelles	34.53	5.14	38.15	39.07	-2.16
South Africa	23.90	0.68	24.26	26.42	2.55
Swaziland	26.30	1.21	27.90	34.81	5.87
Tanzania	17.58	7.22	19.79	22.50	4.25
Zambia	24.86	1.80	24.89	25.79	-2.95
Zimbabwe				11.44	-8.34
SADC	24.55	-0.30	24.73	27.08	2.43
SADC excl. South Africa	26.21	-2.67	25.85	28.48	2.05
SADC middle income	25.76	-0.71	25.76	28.16	2.47
SADC low income	17.16	5.12	18.68	21.54	2.87
Sub-Saharan Africa	24.92	-1.90	24.51	26.33	0.70

Source: Authors' calculations based on IMF (2010).

TABLE A6. SHARE OF AGRICULTURE ODA IN TOTAL ODA AND TOTAL SECTOR ALLOCATABLE ODA.

	Share in total ODA			Share in total allocatable ODA		
Region/Country	2003	Annual Average (2003-2009)	Annual Average % Change (2003-2009)	2003	Annual Average (2003-2009)	Annual Average % Change (2003-2009)
Angola	1.03	2.84	46.09	2.56	3.70	17.16
Botswana	0.75	2.08	15.26	0.91	2.24	20.64
Congo, Dem. Rep.	0.34	0.86	64.52	1.06	1.62	17.95
Lesotho	4.70	1.74	-36.74	5.57	2.00	-37.76
Madagascar	6.84	6.00	5.32	11.06	9.54	-4.63
Malawi	5.97	7.13	1.31	8.22	12.24	1.51
Mauritius	6.52			6.67		
Mozambique	2.54	4.53	13.70	4.13	6.48	13.09
Namibia	3.98	3.49	-13.52	4.41	3.71	-14.65
Seychelles	6.72			7.21		
South Africa	1.87	1.69	-9.48	2.09	1.77	-10.66
Swaziland	7.93	8.62	-20.80	9.61	10.29	-22.32
Tanzania	4.13	5.59	10.80	6.76	8.80	7.94
Zambia	2.89	3.46	15.32	4.76	6.09	5.34
Zimbabwe	4.09	3.54	2.52	6.64	5.77	6.07
SADC	2.50	3.68	17.01	5.22	6.22	4.48
SADC excl. South Africa	2.53	3.81	17.92	5.51	6.71	4.74
SADC middle income	2.03	2.09	1.65	3.18	2.61	-5.91
SADC low income	2.64	3.99	18.16	5.69	7.08	5.04
Sub-Saharan Africa	3.41	4.16	15.87	6.51	7.21	6.51

Source: Authors' calculations based on OECD CRS (2010).
Notes: Agriculture ODA data not available for Mauritius for 2009, and Seychelles 2008-2009.

TABLE A7. SHARE OF EMERGENCY FOOD AID IN TOTAL ODA (%).

Region/Country	2003	Annual Average (2003-2009)	Annual Average % Change (2003-2009)
Angola	17.02	6.97	-64.47
Congo, Dem. Rep.	1.82	3.40	10.34
Lesotho	0.84	3.61	34.91
Madagascar		0.52	10.75
Malawi	1.13	0.73	-6.77
Mozambique	0.09	0.25	84.33
South Africa	0.26	0.06	-20.96
Swaziland	1.72	2.27	171.90
Tanzania	0.99	1.03	-12.84
Zambia	1.03	0.42	-15.97
Zimbabwe	13.35	16.81	6.59
SADC	2.01	1.89	-3.37
SADC excl. South Africa	2.04	1.99	-8.15
SADC middle income	8.16	3.05	-53.20
SADC low income	1.17	1.72	3.02
Sub-Saharan Africa	3.98	4.18	-17.32

Source: Authors' calculations based on OECD CRS (2010).
Notes: Emergency food aid data not available for Botswana, Mauritius, Namibia, and Seychelles.

Annex B: Agriculture Expenditures

TABLE B1. SHARE OF AGRICULTUTAL EXPENDITURE IN TOTAL PUBLIC EXPENDITURES.

Region/Country	2004	2005	2006	2007
Malawi	6.60	12.71	11.00	13.20
Namibia	7.30	6.90	8.20	8.00
Zimbabwe	11.90	10.00	6.20	6.00
Tanzania	5.70	4.71	5.78	5.78
Madagascar	8.00	7.90	8.00	4.20
Zambia	7.00	4.00	5.00	4.00
Swaziland	4.97	6.00	4.70	3.71
Angola	2.24	6.47	5.29	3.55
Lesotho	4.80	5.00	4.00	3.50
Botswana	2.80	2.70	3.20	3.30
Mauritius	3.96	2.91	2.56	
Congo, D.R.	0.80	0.70	1.50	1.80
SADC	3.66	3.57	3.70	3.32
SADC excl. South Africa	4.86	4.71	4.86	4.32
SADC low income	5.00	4.54	4.77	4.38
SADC middle income	1.26	1.82	1.79	1.45
Sub-Saharan Africa	9.34	9.76	9.60	9.84

Source: SADC (Southern African Development Community), 2008. "Regional economic integration: A strategy for poverty eradication towards sustainable development" draft document, SADC International conference on poverty and development, 18-20 April 2008, Paillees, Mauritius.

TABLE B2. AGRICULTURAL EXPENDITURES FOR SELECTED COUNTRIES (PPP 2005 INTERNATIONAL USD BILLION).

Country	Annual average (1990-1995)	Annual average change (% point) (1990-1995)	Annual average (1995-2003)	Annual average change (% point) (1995-2003)	2003	Annual average (2003-2006)	Annual average change (% point) (2003-2006)
Botswana	0.21	6.98	0.29	1.51	0.30	0.27	-8.05
Malawi	0.19	0.80	0.14	-7.37	0.09	0.07	-2.54
Zambia	0.07	-6.33	0.10	3.70	0.09	0.18	68.83

Source: Authors' calculations based on IMF (2010).

TABLE B3. AGRICULTURAL EXPENDITURES SHARE IN GDP FOR SELECTED COUNTRIES.

Country	Annual average (1990-1995)	Annual average change (% point) (1990-1995)	Annual average (1995-2003)	Annual average change (% point) (1995-2003)	2003	Annual average (2003-2006)	Annual average change (% point) (2003-2006)
Botswana	1.83	1.09	1.69	-4.53	1.52	1.08	-12.03
Malawi	2.48	-8.32	1.50	-7.73	1.14	0.73	-7.45
Zambia	0.39	9.96	0.71	0.84	0.64	1.11	64.59

Source: Authors' calculations based on IMF (2010).

TABLE B4. AGRICULTURAL EXPENDITURES SHARE IN AGRICULTURE GDP FOR SELECTED COUNTRIES.

Country	Annual average (1990-1995)	Annual average change (% point) (1990-1995)	Annual average (1995-2003)	Annual average change (% point) (1995-2003)	2003	Annual average (2003-2006)	Annual average change (% point) (2003-2006)
Botswana	46.02	5.54	68.61	3.14	70.74	66.39	-1.57
Malawi	9.13	8.93	5.89	-11.02	3.23	2.69	-3.33
Zambia	4.12	-3.31	4.91	-2.74	3.63	6.54	60.78

Source: Authors' calculations based on IMF (2010).

TABLE B5. PERCENTAGE OF COMMERCIAL BANK LENDING TO THE AGRICULTURE SECTOR IN TOTAL FOR SELECTED COUNTRIES (1995-2008).

Country	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008
Botswana	1.4	0.61	0.93	0.67	0.76	1.42	1.42	1.13	1.06	0.68
Malawi	28.62	7.55	8.63	3.23	10.4	12.11	9.9	15.25	16.27	14.6
Mozambique			17.87	15.97	12.37	10.69	8.66	6.39	9.42	8.05
Tanzania	8.1	6.3	9.6	17.1	12	13.9	12.4	13.94	11.01	12.35

Source: Mhlanga (2010).

TABLE B6. COMMERCIAL BANK LENDING BY SECTOR IN TOTAL FOR SELECTED COUNTRIES (2008).

Sector	Botswana	Malawi	Mozambique	Tanzania
Agriculture	0.68	14.60	8.05	12.35
Manufacturing	2.33	11.66	13.19	14.01
Trade	8.58	13.94	25.62	16.84
Transport, electricity and water (oil and gas)	2.74	16.49	11.15	12.04
Building and construction	1.82	2.65	4.25	3.27
Mining and quarrying	4.60	0.11		0.86
Other services and personal loans	79.25	40.55	37.74	40.63

Source: Mhlanga (2010).

TABLE B7. VALUE OF COMMERCIAL BANK LENDING TO THE AGRICULTURAL SECTOR FOR SELECTED COUNTRIES (1995-2008) (USD MILLION).

Country	1995	20002001	2002	2003	2004	2005	2006	2007	2008	
Botswana	6.83	5.9	8.74	6.99	11.18	25.6	23.42	20.3	23.79	15.5
Malawi	22.91	10.5	8.21	1.47	9.84	16.89	14.24	31.97	42.76	47.17
Mozambique			100.37	94.81	72.17	74.18	74.82	64.87	118.28	133.28
Tanzania						141.05	152.14	231.37	289.48	422.24

Source: Mhlanga (2010).

Annex C: Agricultural Growth Performance

TABLE C1. ANNUAL AVERAGE AGRICULTURE VALUE ADDED USD1,000 (IN CONSTANT 2000 USD).

Region/Country	1990-1995	1995-2003	2003	2003-2009
Angola	4,588.26	5,240.64	7,752.84	11,548.58
Botswana	1,564.08	1,484.39	1,384.38	1,431.26
Congo, Dem. Rep.	21,568.17	22,562.65	20,735.59	22,199.94
Lesotho	761.40	788.58	702.20	685.41
Madagascar	8,888.86	10,038.79	10,737.64	11,546.69
Malawi	3,250.01	5,340.72	5,665.68	6,154.41
Mauritius	2,558.09	2,647.25	2,594.91	2,626.12
Mozambique	6,542.86	9,425.80	11,396.87	14,262.89
Namibia	3,097.03	3,891.22	4,456.94	4,894.58
Seychelles	157.85	167.50	173.67	183.52
South Africa	34,314.41	37,537.80	41,241.02	42,615.81
Swaziland	1,289.95	1,409.03	1,507.05	1,575.13
Tanzania	29,683.17	37,178.45	43,734.81	46,982.16
Zambia	4,854.47	6,128.60	6,462.74	6,778.02
Zimbabwe	8,307.10	10,164.79	8,578.64	8,186.69

Source: Authors' calculations based on World Bank (2010b).

TABLE C2. AGRICULTURE VALUE ADDED (% OF GDP).

Region/Country	Annual average (1990-1995)	Annual average change (1990-1995)	Annual average (1995-2003)	Annual average change (1995-2003)	2003	Annual average (2003-2009)	Annual average change (2003-2009)
Angola	12.94	-20.91	8.07	-0.29	8.27	8.26	-0.10
Botswana	4.78	-2.32	3.07	-8.84	2.16	2.17	2.29
Congo, Dem. Rep.	47.96	12.22	50.07	2.18	49.76	45.01	-3.20
Lesotho	18.28	-3.81	14.47	-8.02	9.63	8.27	-4.34
Madagascar	27.76	-2.86	29.34	0.88	29.89	27.01	-3.32
Malawi	38.65	-9.25	36.08	2.63	37.37	35.14	-0.84
Mauritius	11.19	-4.60	8.02	-6.83	6.34	5.40	-7.53
Mozambique	36.18	-2.00	29.63	-4.40	27.76	28.02	0.87
Namibia	11.30	0.76	11.28	-1.10	10.54	9.89	-4.60
Seychelles	4.32	-2.98	3.25	-3.72	3.00	2.44	-7.09
South Africa	4.27	-2.22	3.75	-1.50	3.56	3.10	-0.33
Swaziland	11.07	3.84	12.21	-3.49	9.77	8.09	-4.68
Tanzania	47.05	-0.21	45.69	-0.82	45.26	45.64	
Zambia	21.64	-1.58	21.00	3.21	22.56	21.75	-1.53
Zimbabwe	14.73	2.80	18.21	-2.05	15.89	17.55	
SADC	10.63	-1.64	9.62	-1.16	9.25	7.73	-7.59
SADC excl. South Africa	24.91	-0.62	22.64	-1.36	21.61	17.64	-10.99
SADC middle income	5.25	-5.15	4.40	-1.80	4.15	3.80	0.16
SADC low income	33.83	1.95	33.57	0.00	33.83	28.03	-11.71
Sub-Saharan Africa	17.94	-0.79	17.97	1.31	19.55	16.49	-6.62

Source: Authors' calculations based on (FAO 2010).

TABLE C3. LAND PRODUCTIVITY (1999-2001 I$).

Region/Country	Annual average (1990-1995)	Annual average change (1990-1995)	Annual average (1995-2003)	Annual average change (1995-2003)	2003	Annual average (2003-2008)	Annual average change (2003-2008)
Angola	11.84	4.40	16.62	7.24	22.12	25.13	4.74
Botswana	6.63	0.98	6.26	-1.67	6.23	6.52	1.67
Congo, D.R.	152.53	-1.06	127.55	-1.36	121.59	122.48	0.25
Lesotho	38.78	1.38	42.80	0.64	41.01	40.69	-1.67
Madagascar	50.78	0.60	48.65	-2.02	46.24	51.55	2.93
Malawi	214.21	1.72	289.00	3.63	304.88	353.12	6.92
Mauritius	1,468.76	0.34	1,574.24	1.69	1,736.96	1,756.60	0.02
Mozambique	16.68	2.43	25.53	3.02	28.25	30.51	1.97
Namibia	7.80	2.18	7.46	-0.42	7.32	7.40	0.73
Seychelles	1,037.57	5.84	1,236.02	-2.27	1,050.80	900.41	-5.18
South Africa	72.51	-1.32	79.74	2.59	86.66	90.91	2.46
Swaziland	150.48	-3.04	144.10	0.69	151.62	157.16	0.79
Tanzania	87.04	0.14	99.54	3.03	119.47	129.27	4.57
Zambia	28.82	-0.87	31.24	2.88	35.74	39.76	2.31
Zimbabwe	96.73	-2.15	107.62	-0.40	92.26	84.02	-3.14
SADC	51.11	-0.30	55.54	1.80	59.45	63.19	2.74
SADC excl. South Africa	44.22	0.16	47.78	1.45	50.84	54.46	2.90
SADC middle income	38.92	-0.51	43.50	2.79	47.99	50.66	2.53
SADC low income	66.34	-0.15	70.23	0.92	73.10	78.06	2.86
Sub-Saharan Africa	72.20	2.60	86.42	2.62	95.38	101.68	2.35

Source: Authors' calculations based on FAO (2010).

TABLE C4. LABOR PRODUCTIVITY (1999-2001 I$).

Region/Country	Annual average (1990-1995)	Annual average change (1990-1995)	Annual average (1995-2003)	Annual average change (1995-2003)	2003	Annual average (2003-2006)	Annual average change (2003-2006)
Angola	194.04	1.95	235.23	4.98	288.57	301.26	2.64
Botswana	594.95	-1.95	481.90	-3.35	456.10	473.26	3.27
Congo, D.R.	301.10	-3.75	223.92	-2.63	200.63	195.61	-1.79
Lesotho							
Madagascar	385.56	-1.49	342.55	-2.60	310.51	329.72	4.39
Malawi	217.90	1.04	297.81	3.66	313.77	331.50	3.83
Mozambique	127.77	-0.97	165.79	1.24	173.18	181.69	2.83
Mauritius	2,382.65	1.59	2,792.37	3.04	3,193.95	3,299.66	0.41
Namibia	1,031.22	1.04	938.49	-0.77	920.20	929.64	0.29
Seychelles							
South Africa	3,740.84	-0.13	4,537.98	4.45	5,347.76	5,715.51	4.79
Swaziland	1,615.37	-4.22	1,471.40	0.34	1,546.66	1,624.66	3.74
Tanzania	244.64	-2.69	242.15	1.43	275.79	283.19	6.38
Zambia	213.91	-1.86	224.94	2.84	258.28	283.88	4.31
Zimbabwe	388.19	-2.47	439.16	0.45	395.90	378.07	-3.17
SADC	402.87	-2.34	395.96	0.63	404.82	411.60	1.89
SADC excl. South Africa	273.89	-2.10	266.16	0.26	270.13	276.35	2.57
SADC middle income	1,413.65	-1.60	1,480.37	1.85	1,576.88	1,600.64	1.17
SADC low income	264.32	-2.35	255.06	0.05	255.91	261.66	2.72
Sub-Saharan Africa	439.49	0.59	476.47	1.38	502.80	519.02	2.28

Source: Authors' calculations based on FAO (2010).

TABLE C5. AVERAGE TOTAL CROP PRODUCTION (TONNES) (2003-09).

Country	Total cereals	Bananas	Cassava	Groundnuts	Maize	Millet	Potatoes	Rice	Roots and tubers	Sorghum	Sweet potatoes	Wheat
Angola	777,454	300,000	8,780,480	65,943	625,640	96,912	384,145	8,598	10,558,200	24,062	714,370	4,267
Botswana	34,040			596	6,676	108			93,500	6,275		567
Congo, D.R.	1,523,846	314,363	14,979,487	366,618	1,155,375	37,112	93,002	315,655	15,552,157	11,886	231,163	8,615
Lesotho	96,876				77,099		91,583		92,286	1,067		10,930
Madagascar	3,493,158	313,333	2,344,062	46,098	382,251		236,792	3,118,000	3,598,971	47,421	760,446	10,333
Malawi	2,440,236	373,333	2,671,175	198,783	2,214,938	24,849	2,285,793	83,113	5,175,659			2,315
Mauritius	571	10,988	222	454	541		12,988		15,178	170,087	635	
Mozambique	1,482,364	90,000	5,966,437	92,343	1,172,661	21,136	88,333	96,578	6,826,646	8,417	897,880	2,200
Namibia	127,734			310	46,452	58,917			317,857			11,404
Seychelles		1,995	150						150	236,667		
South Africa	12,420,395	344,331		77,789	9,648,512	12,000	1,832,863	3,233	1,883,501	600	50,899	1,879,807
Swaziland	52,157	2,750		4,183	55,228		6,283	170	54,857	681,464	2,417	308
Tanzania	5,789,581	2,817,290	5,550,023	279,210	3,522,995	203,699	580,548	1,202,154	7,511,039	18,129	1,194,112	87,033
Zambia	1,541,193	792	940,500	68,126	1,245,710	35,569	11,575	17,055	1,030,672	76,581	81,956	112,956
Zimbabwe	1,338,052	93,333	189,000	92,568	1,098,993	47,110	40,000	650	232,171	1,282,654	1,733	170,100

Source: Authors' calculations based on FAO (2010).

TABLE C6. AVERAGE LIVESTOCK PRODUCTION (2003-09).

	Meat production (in tonnes)				Stock (Head)			
Country	Cattle	Goat	Pig	Sheep	Cattle	Goats	Pigs	Sheep
Angola	86,600	10,163	27,903	1,243	4,258,618	2,218,299	781,167	333,623
Botswana	33,643	5,057	195	1,666	2,271,333	1,799,167	4,950	274,167
Congo, D.R.	12,395	18,086	23,885	2,788	756,221	4,025,956	960,092	900,021
Lesotho	9,489	1,973	5,652	4,051	680,061	814,211	140,618	1,018,040
Madagascar	130,454	6,375	45,550	2,844	9,083,147	1,271,180	1,089,715	747,635
Malawi	23,989	14,396	25,494	746	823,622	2,287,985	715,230	156,569
Mauritius	2,730	146	718	70	7,407	33,547	13,302	11,148
Mozambique	17,800	22,414	98,186	844	1,173,250	4,581,606	1,379,444	174,248
Namibia	40,597	4,063	2,446	9,834	2,527,222	2,064,811	31,333	2,716,477
Seychelles	20	20	493		832	5,175	8,850	
South Africa	725,975	36,391	201,530	108,595	13,691,465	6,380,095	1,649,567	25,278,832
Swaziland	15,783	1,854	1,270	289	595,875	274,763	32,833	28,667
Tanzania	261,500	30,686	13,000	10,903	17,765,868	12,551,040	455,000	3,832,543
Zambia	58,133	7,389	11,063	723	2,850,000	1,908,333	341,667	189,167
Zimbabwe	102,225	14,133	29,684	492	5,100,000	3,200,000	611,667	435,000

Source: Authors' calculations based on FAO (2010).

TABLE C7. CEREAL YIELDS (KG/HA).

Region/Country	Annual average (1990-1995)	Annual average change (1990-1995)	Annual average (1995-2003)	Annual average change (1995-2003)	2003	Annual average (2003-2008)	Annual average change (2003-2008)
Angola	350.58	-0.76	605.46	3.32	596.77	536.18	-4.73
Botswana	339.75	4.45	386.50	5.48	718.10	646.05	-14.83
Congo, D.R.	788.40	-0.70	784.76	-0.12	771.67	771.58	0.00
Lesotho	779.25	2.12	925.92	-4.96	647.80	565.23	-4.91
Madagascar	1,937.18	0.14	1,987.91	0.70	2,174.00	2,350.57	0.26
Malawi	1,051.33	5.26	1,325.19	-1.19	1,091.70	1,419.57	14.25
Mauritius	4,029.30	-1.31	6,029.78	8.29	6,930.73	7,618.37	6.18
Mozambique	454.82	12.20	842.71	1.78	863.63	852.12	-2.64
Namibia	343.22	-12.48	333.12	4.94	376.00	399.80	4.76
Seychelles							
South Africa	1,828.57	0.65	2,338.84	5.13	2,695.03	3,059.08	5.84
Swaziland	1,453.10	9.25	1,602.38	-8.72	1,085.03	1,017.77	-14.08
Tanzania	1,317.98	1.51	1,499.72	-1.46	1,374.87	1,155.73	4.46
Zambia	1,467.57	1.71	1,488.51	0.67	1,645.37	1,881.08	3.68
Zimbabwe	1,143.88	-10.72	1,046.28	-2.32	808.50	713.00	-15.54
SADC	1,295.86	0.45	1,479.45	1.29	1,486.18	1,480.36	1.90
SADC excl. South Africa	1,056.66	0.09	1,174.50	-0.38	1,126.72	1,113.01	1.56
SADC middle income	1,529.13	0.13	1,916.31	4.12	2,098.02	2,219.88	3.50
SADC low income	1,140.77	0.28	1,248.04	-0.41	1,199.33	1,188.53	1.87
Sub-Saharan Africa	1,019.04	-0.50	1,097.25	1.14	1,144.29	1,187.58	1.84

Source: Authors' calculations based on FAO (2010).

TABLE C8. CEREAL PRODUCTION PER CAPITA (KG/CAPITA).

Region/Country	Annual average (1990-1995)	Annual average change (% point) (1990-1995)	Annual average (1995-2003)	Annual average change (% point) (1995-2003)	2003	Annual average (2003-2009)	Annual average change (% point) (2003-2009)
Angola	27.80	-3.63	38.93	5.52	44.82	45.46	0.97
Botswana	33.70	1.92	23.70	-11.02	17.13	18.17	6.43
Congo, Dem. Rep.	37.52	-2.69	31.19	-2.52	27.38	25.14	-2.77
Lesotho	86.61	-5.24	93.96	-1.43	64.02	48.29	-9.39
Madagascar	213.39	-2.46	186.57	-1.50	185.97	193.25	-2.30
Malawi	149.21	1.63	175.45	-1.14	143.88	172.22	7.60
Mauritius	1.45	-32.06	0.28	-3.09	0.23	0.45	25.32
Mozambique	47.34	9.68	84.25	-0.96	70.75	69.42	0.41
Namibia	55.15	-5.52	56.79	0.03	54.18	62.09	4.72
Seychelles							
South Africa	288.67	-2.61	271.90	0.53	266.87	260.04	1.47
Swaziland	107.21	4.85	106.16	-10.81	62.64	46.11	-19.41
Tanzania	138.01	-2.94	133.41	-1.46	154.68	143.79	1.70
Zambia	134.97	-4.64	106.06	-3.14	103.64	127.26	5.37
Zimbabwe	172.49	-8.24	156.50	-5.58	117.49	107.22	-13.92
SADC	136.49	-2.43	130.36	-1.07	125.56	123.33	0.46
SADC excl. South Africa	97.00	-2.47	94.98	-1.94	91.10	91.43	0.21
SADC middle income	206.26	-2.84	196.09	0.48	191.17	184.58	1.04
SADC low income	105.56	-2.45	102.13	-2.10	97.89	98.32	0.21

Source: Authors' calculations based on FAO (2010).

TABLE C9. TOTAL FERTILIZER USE (KG/HA).

Region/Country	Annual average (1990-1995)	Annual average change (1990-1995)	Annual average (1995-2003)	Annual average change (1995-2003)	2003	Annual average (2003-2007)	Annual average change (2003-2007)
Angola	2.89	-0.27	1.28		2.65	3.12	11.41
Botswana	3.02	19.49	10.62				
Congo, Dem. Rep.	1.00	9.34	0.39		0.16	0.20	-51.35
Lesotho	17.19	2.55	21.02				
Madagascar	3.71	3.15	3.28	-9.38	2.15	3.08	9.67
Malawi	30.03	-11.46	25.68	-0.78	32.28	37.72	3.64
Mauritius	281.75	2.45	327.88	-2.40	287.83	274.75	-3.82
Mozambique	1.40	16.55	3.75	21.14	5.37	3.95	-10.18
Namibia	0.00		0.73		2.82	2.34	9.75
Seychelles	0.00		9.44		3.67	30.80	
South Africa	54.41	-1.85	51.39	-0.74	51.75	49.62	-5.86
Swaziland	54.64	-18.86	30.99				
Tanzania	4.51	-10.80	3.12	-3.19	4.53	6.53	5.92
Zambia	12.88	-1.61	9.38	1.71	14.46	17.00	12.20
Zimbabwe	51.45	-2.03	49.99	-2.15	37.43	34.56	-1.70
SADC	25.62	-2.87	22.38	-2.39	20.13	19.10	-5.62
SADC excl. South Africa	12.93	-3.01	11.95	-2.13	10.86	11.74	1.57
SADC middle income	44.11	-2.51	40.10	-1.81	37.78	33.98	-9.73
SADC low income	13.84	-2.55	12.88	-1.86	11.98	12.96	1.80
Sub-Saharan Africa	12.76	-5.19	10.95	-1.50	9.75	8.91	-6.19

Source: Authors' calculations based on FAO (2010).

TABLE C10. AGRICULTURE VALUE ADDED (ANNUAL PERCENTAGE CHANGE).

Region/Country	Annual average (1990-1995)	Annual average change (percentage point) (1990-1995)	Annual average (1995-2003)	Annual average change (percentage point) (1995-2003)	2003	Annual average (2003-2008)	Annual average change (percentage point) (2003-2008)
Angola	-7.37	4.48	11.64	-1.23	12.77	12.54	-0.02
Botswana	0.62	-0.11	-0.16	1.59	-0.17	5.15	1.82
Congo, Dem. Rep.	3.53	1.80	-0.23	-1.30	0.77	2.31	0.30
Lesotho	-1.44	-2.57	0.02	0.59	-8.32	0.59	0.90
Madagascar	1.49	-0.04	1.88	-0.07	1.02	2.45	0.32
Malawi	8.51	7.97	9.16	-4.48	0.08	4.23	0.79
Mauritius	1.68	-0.43	1.85	-0.73	-2.22	1.78	0.94
Mozambique	2.51	2.85	6.77	-1.24	7.12	7.36	0.22
Namibia	5.50	-2.73	3.13	0.84	5.13	11.31	8.54
Seychelles	-1.54	-3.38	2.53	-0.27	-2.51	2.14	1.81
South Africa	-3.00	-2.56	1.61	2.58	3.11	1.44	-0.65
Swaziland	-3.31	0.24	3.00	0.89	2.45	1.52	-0.75
Tanzania	3.74	-0.15	4.00	-0.23	4.92	5.56	1.32
Zambia	7.63	8.45	4.58	-3.54	2.52	1.60	-0.85
Zimbabwe	2.80	-3.94	0.05	0.82	-8.87	-5.95	-2.50
SADC	2.08	0.38	3.12	0.02	3.02	4.19	0.42
SADC excl. South Africa	3.49	1.07	3.48	-0.71	2.98	5.15	0.96
SADC middle income	-1.95	-1.63	2.84	1.85	4.08	4.36	0.62
SADC low income	4.15	1.14	3.15	-0.85	2.43	3.79	0.21
Sub-Saharan Africa	4.04	1.42	3.89	-0.82	3.79	4.29	0.23

Source: Authors' calculations based on FAO (2010).

Annex D: Agricultural Trade Performance

TABLE D1. AGRICULTURAL RAW MATERIAL EXPORTS (PERCENTAGE OF MERCHANDISE EXPORTS).

Region/Country	Annual average (1990-1995)	Annual average change (1990-1995)	Annual average (1995-2003)	Annual average change (1995-2003)	2003	Annual average (2003-2008)	Annual average change (2003-2008)
Angola	0.26	-14.60	0.14	-25.19	0.05	0.05	2.23
Botswana	5.27	10.43	5.78	-7.25	2.41	2.31	3.34
Congo, D.R.	20.62	19.10	12.85	-33.10	1.76	1.50	-5.22
Lesotho	1.39	-8.13	0.83	-5.48	0.49	0.37	-16.05
Madagascar	35.30	4.38	24.07	-1.65	18.59	12.83	-17.69
Malawi	59.40	-0.45	69.11	-1.66	53.30	56.25	-0.53
Mauritius	22.23	-3.59	17.10	-4.64	14.97	12.81	-10.77
Mozambique	5.35	5.43	5.56	-4.65	5.75	7.83	17.44
Namibia	15.22	2.53	14.07	-0.96	12.26	9.74	-21.34
Seychelles	0.53	16.95	0.41	-13.06	0.27	0.35	11.64
South Africa	9.47	-4.52	8.12	-1.82	6.98	5.92	-10.88
Swaziland	37.07	-12.17	24.00	-7.28	15.19	13.55	-13.35
Tanzania	21.16	10.17	27.83	-7.23	17.78	15.32	-10.34
Zambia	3.25	-0.05	9.41	11.41	12.52	11.23	-10.56
Zimbabwe	35.36	1.89	40.68	3.32	33.27	30.87	-14.31
SADC	13.15	-1.90	11.47	-4.04	8.49	7.29	-11.06
SADC excl. South Africa	17.91	1.72	16.65	-5.82	10.97	9.63	-11.21
SADC middle income	10.16	-3.98	8.37	-3.41	6.69	5.63	-12.00
SADC low income	25.20	4.89	27.03	-5.00	17.90	16.25	-9.53
Sub-Saharan Africa	15.67	3.05	15.37	-4.52	12.73	9.62	-11.69

Source: Authors' calculations based on World Bank (2010b).

TABLE D2. AGRICULTURAL RAW MATERIALS IMPORTS (PERCENTAGE OF MERCANDISE IMPORTS).

Region/Country	Annual average (1990-1995)	Annual average change (1990-1995)	Annual average (1995-2003)	Annual average change (1995-2003)	2003	Annual average (2003-2008)	Annual average change (2003-2008)
Angola	27.12	-6.43	18.60	-7.00	16.88	12.74	-8.83
Botswana	16.32	11.22	19.64	-1.19	13.31	9.31	1.74
Congo, D.R.	46.86	22.36	42.61	-15.15	21.30	18.69	0.02
Lesotho	15.89	-6.38	15.57	-1.55	10.92	6.11	-12.13
Madagascar	13.28	5.40	15.79	-0.40	13.05	15.01	-5.65
Malawi	20.40	14.67	15.18	4.14	20.44	15.41	-5.86
Mauritius	13.91	3.57	14.44	-1.10	15.12	14.44	0.79
Mozambique	30.62	7.72	22.81	-7.91	19.66	16.96	-4.10
Namibia	9.09	-1.52	15.09	2.31	11.36	11.57	0.48
Seychelles	17.99	2.09	14.67	-2.73	14.84	11.78	-5.87
South Africa	6.88	5.82	5.61	-6.07	4.83	4.65	0.89
Swaziland	12.02	-8.16	15.04	5.11	16.11	12.48	-12.05
Tanzania	9.40	16.80	18.27	1.60	14.97	12.64	-6.92
Zambia	8.21	6.36	11.97	1.87	10.88	7.60	-14.82
Zimbabwe	8.23	9.52	8.82	5.63	16.38	21.25	8.59
SADC	10.80	2.56	9.81	-2.86	8.90	7.87	-1.93
SADC excl. South Africa	15.75	2.98	16.26	-1.01	15.50	13.19	-4.50
SADC middle income	9.71	1.11	8.56	-3.84	7.43	6.52	-1.61
SADC low income	15.24	8.43	16.08	-0.05	16.50	15.08	-3.71
Sub-Saharan Africa	13.79	1.90	13.21	-0.57	12.86	11.58	-2.71

Source: Authors' calculations based on World Bank (2010b).

TABLE D3. TOTAL AGRICULTURAL EXPORTS (USD1,000).

Region/Country	Annual average (1990-1995)	Annual average change (1990-1995)	Annual average (1995-2003)	Annual average change (1995-2003)	2003	Annual average (2003-2007)	Annual average change (2003-2007)
Angola	4,074	-13.01	3,419	-15.26	2,279	4,500	30.84
Botswana	96,995	8.38	107,475	-8.07	56,632	72,251	18.28
Congo, D.R.	100,519	-0.16	60,344	-21.37	28,135	35,088	14.64
Lesotho	12,536	-0.90	7,549	-9.58	5,369	4,775	-5.62
Madagascar	174,280	5.35	144,539	4.55	165,384	155,651	1.64
Malawi	361,889	-4.21	427,091	-0.77	402,582	537,529	14.69
Mauritius	383,161	1.27	371,828	-4.75	362,618	384,195	0.10
Mozambique	47,594	5.20	60,267	6.84	101,138	203,595	38.84
Namibia	192,046	7.16	206,963	-1.94	225,887	218,497	-7.37
Seychelles	1,115	23.33	1,447	-8.24	1,172	2,311	34.83
South Africa	1,866,097	3.61	2,357,952	1.14	2,903,614	3,630,710	7.73
Swaziland	302,506	-4.54	278,796	-4.54	253,495	290,537	1.10
Tanzania	316,212	11.28	439,203	-3.57	395,054	516,295	12.55
Zambia	29,050	-1.17	92,827	17.10	210,569	283,006	11.18
Zimbabwe	764,347	7.13	909,574	-4.58	733,476	757,066	-2.97
SADC	4,652,420	3.56	5,469,273	-1.14	5,847,405	7,096,008	7.35
SADC excl. South Africa	2,786,323	3.51	3,111,321	-2.97	2,943,791	3,465,298	6.92
SADC middle income	2,858,529	2.76	3,335,428	-0.46	3,811,066	4,607,777	6.17
SADC low income	1,793,892	4.78	2,133,845	-2.31	2,036,338	2,488,231	9.43
Sub-Saharan Africa	10,424,970	4.31	13,313,397	-0.30	15,128,121	18,167,775	7.26

Source: Authors' calculations based on World Bank (2010b).

TABLE D4. TOTAL AGRICULTURAL IMPORTS (USD1,000).

Region/Country	Annual average (1990-1995)	Annual average change (1990-1995)	Annual average (1995-2003)	Annual average change (1995-2003)	2003	Annual average (2003-2007)	Annual average change (2003-2007)
Angola	436,866	-4.69	518,832	5.34	837,702	1,126,035	16.13
Botswana	299,888	9.16	365,959	-2.07	269,844	263,789	5.91
Congo, D.R.	221,776	2.57	245,586	-0.27	320,341	423,748	15.39
Lesotho	144,877	0.99	137,329	-5.82	104,156	75,234	-15.24
Madagascar	66,100	6.38	94,310	5.88	108,528	206,915	23.15
Malawi	124,402	10.34	94,877	5.09	148,096	139,461	1.39
Mauritius	242,455	8.79	313,888	-1.21	355,929	433,133	10.10
Mozambique	275,167	7.49	240,663	3.19	345,403	412,603	11.19
Namibia	114,122	2.93	220,714	1.29	187,586	307,707	29.46
Seychelles	36,898	7.66	53,804	2.67	64,327	78,864	18.58
South Africa	1,381,069	14.83	1,624,866	-3.23	1,987,214	2,948,603	20.66
Swaziland	99,397	-0.18	178,348	8.21	252,670	268,365	-4.35
Tanzania	140,536	17.98	293,966	5.61	325,963	467,829	21.89
Zambia	73,916	5.17	117,837	7.07	166,085	193,296	1.05
Zimbabwe	176,272	15.15	196,773	-2.46	316,857	594,732	25.07
SADC	3,833,741	8.26	4,697,753	0.08	5,790,700	7,940,315	17.17
SADC excl. South Africa	2,452,673	4.79	3,072,887	1.98	3,803,486	4,991,712	15.14
SADC middle income	2,755,572	8.21	3,413,740	-0.90	4,059,428	5,501,731	16.49
SADC low income	1,078,170	8.32	1,284,013	2.78	1,731,272	2,438,584	17.49
Sub-Sahara Africa	8,480,687	6.68	11,004,390	2.87	14,211,338	19,437,208	15.63

Source: Authors' calculations based on World Bank (2010b).

TABLE D5. NET TOTAL CEREAL AND MAIZE TRADE IN THE SADC REGION (IN 1,000 TONNES).

	Cereal net trade				Maize net trade			
	1990-1995	1995-2003	2003	2003-2008	1990-1995	1995-2003	2003	2003-2008
Angola	-371.26	-499.23	-702.80	-694.20	-122.23	-140.57	-134.58	-68.96
Botswana	-136.19	-162.74	-160.46	-148.87	-48.80	-51.16	-49.47	-45.75
Congo, D.R.	-330.77	-376.44	-570.69	-737.81	-50.61	-17.75	-8.50	-79.05
Lesotho	-226.68	-212.06	-198.97	-208.29	-141.38	-113.16	-99.17	-122.75
Madagascar	-106.51	-193.58	-253.03	-324.90	9.47	1.96	-3.38	-4.45
Malawi	-359.04	-204.19	-209.91	-68.25	-286.37	-118.40	-131.88	24.66
Mauritius	-212.69	-235.20	-249.18	-255.25	-38.78	-62.27	-79.80	-81.10
Mozambique	-644.50	-514.58	-745.74	-829.91	-367.43	-188.46	-204.85	-106.90
Namibia	-157.07	-190.01	-115.88	-162.45	-91.20	-111.54	-45.36	-64.66
Seychelles	-12.45	-14.27	-16.47	-19.10	-4.42	-3.35	-5.45	-7.22
South Africa	-600.17	-556.11	-1,700.66	-1,657.68	504.13	591.59	-51.29	263.75
Swaziland	-71.68	-85.44	-148.46	-159.36	-17.03	-36.61	-77.50	-91.29
Tanzania	-188.18	-364.07	-513.58	-597.31	-42.66	-29.51	3.20	-37.49
Zambia	-246.24	-171.13	-170.64	-42.54	-204.68	-92.67	-54.40	46.16
Zimbabwe	142.88	-64.02	-627.40	-531.95	222.34	-2.25	-481.61	-375.26
SADC	-3,520.56	-3,843.07	-6,383.88	-6,437.88	-679.67	-374.14	-1,424.03	-750.32
SADC excl. SA	-2,920.39	-3,286.96	-4,683.22	-4,780.20	-1,183.79	-965.73	-1,372.75	-1,014.06
SADC middle income	-1,788.19	-1,955.07	-3,292.88	-3,305.20	40.27	72.94	-542.61	-217.98
SADC low income	-1,732.37	-1,888.01	-3,091.00	-3,132.68	-719.94	-447.08	-881.42	-532.34

Source: Authors' calculations based on FAO (2010).

Annex E: Poverty and Hunger Trends

TABLE E1. GLOBAL HUNGER INDEX.

Region/Country	1990	2010
Congo, D.R.	24.7	41
Madagascar	28.1	27.5
Angola	40.6	27.2
Zambia	25.6	24.9
Mozambique	37.4	23.7
Zimbabwe	18.6	20.9
Tanzania	22.9	20.7
Malawi	30.6	18.2
Namibia	19.2	13.6
Botswana	14.3	12.5
Lesotho	13	12.2
Swaziland	9.5	10.8
South Africa	7.3	7.3
Mauritius	7.3	6.7
SADC	22.63	23.55
SADC excl. South Africa	26.67	27.67
SADC middle income	14.87	12.07
SADC low income	26.12	28.57
Sub-Saharan Africa	25	21

Source: Authors' calculations based on von Grebmer (2010).

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