RAPID

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REGIONAL ACTIVITY TO PROMOTE INTEGRATION THROUGH DIALOGUE AND POLICY IMPLEMENTATION

RAPID Task Order 1 (Policy and Design) Activity

Agriculture in Southern Africa: Strategic Options for Improving Performance of the Sector

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TABLE OF CONTENTS

Purpose of Report and Acknowledgements

The USAID Regional Center for Southern Africa (RCSA) is in the process of developing a new strategy for the period 2004-2010. A broad-based review of regional issues, trends and strategic options in the agricultural sector was commissioned to assist the strategic planning teams and working groups in their preparations of a concept paper for the Mission.

A paper outlining the current and projected trends and issues in the Southern African agricultural sector as well as potential scenarios for RCSA's strategy period was prepared by the author. A focus group of agricultural experts from the region was held in Gaborone to discuss issues raised by the paper and potential developments in the sector. The outcome of those discussions has been incorporated into this final paper as a way of focusing RCSA's efforts on the most important issues affecting agriculture in Southern Africa, and providing strategic options for consideration in addressing the issues.

The author would like to thank the participants of the agriculture focus group for their valuable contributions as well as representatives from RAPID and IMPACT for their assistance in the entire review and presentation process. Special thanks go to Mr. Killy Sichingwa for the statistical tables, graphs and his analytical input.

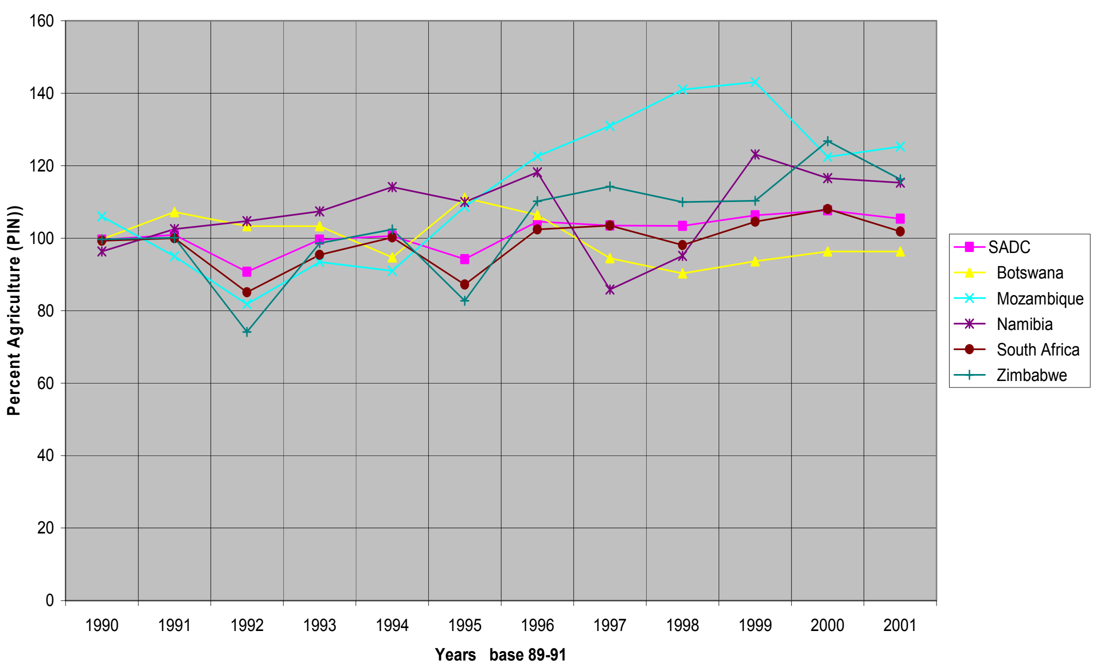
Agriculture in Southern Africa

I. OVERVIEW

a. Setting

Agriculture is an important economic sector for nearly all of the Southern African Development Community (SADC) as about two-thirds of the labor force in the region depends upon agriculture for subsistence, employment and income. In spite of its economic significance, however, overall agricultural production has not kept up with the increase in population in the region. Although agricultural production across the SADC region has increased overall from 1990 to 2001, there has been a decline in per capita production due to low agricultural productivity and population growth. (Figures 1 and 2, FAOSTAT)

Figure 1. Agriculture Net Production Index 1990-2001

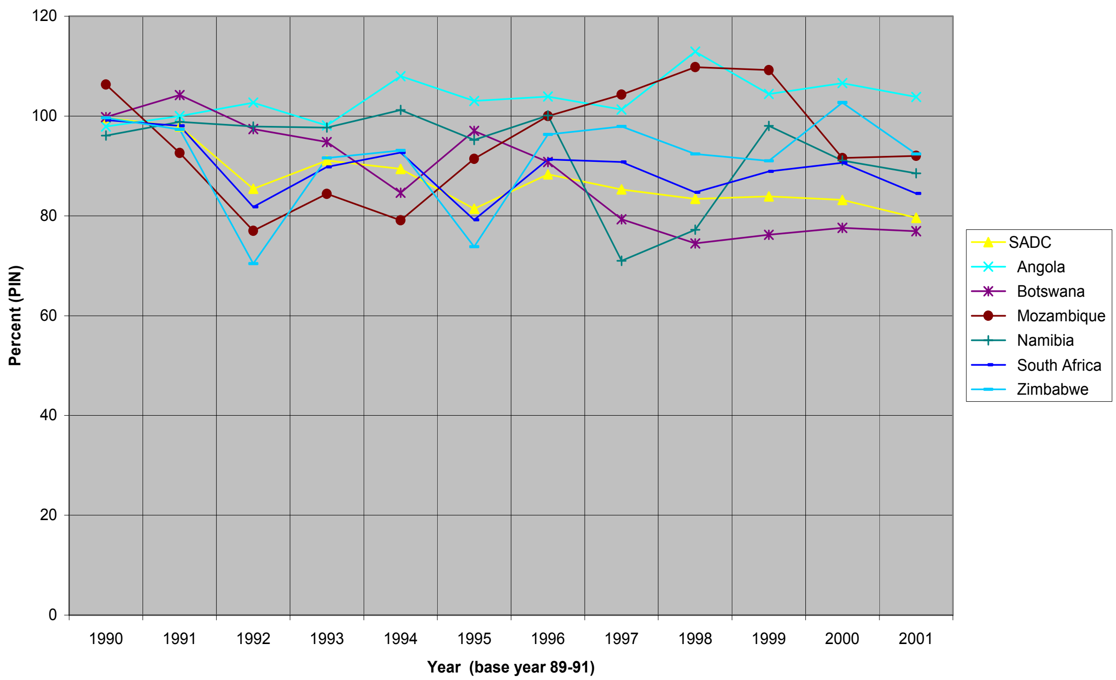


N.B. Net production is total agricultural production minus feed and seed.
Source: FAOSTAT and K. Sichingwa, Impact project.

Less than five percent of all land in the SADC region is classified as arable, yet approximately 45 percent is cultivated. (FAOSTAT) This implies that much of the land under cultivation is not suitable or is of poor quality for farming activities. Figure 3 depicts a profile of land suitability for agricultural production. Prime land is characterized by a balanced nutrient supply and water holding capacity of 150 mm per meter. Zambia, Zimbabwe, South Africa and Mozambique all contain prime land. It will be noted that most of Namibia and Botswana as well as large areas of South Africa and portions of Mozambique are classified as unsustainable for agricultural production. (Eswaran, et. al.)

Poverty is most pronounced in rural areas where the greatest proportion of Southern Africans live. In 2001, roughly 207 million people were living in the SADC region. (FAOSTAT) Of that total, approximately 63% were living in rural areas and 37% in urban areas.

Figure 2. Agriculture Net Per Capita Production Index
1990 - 2001

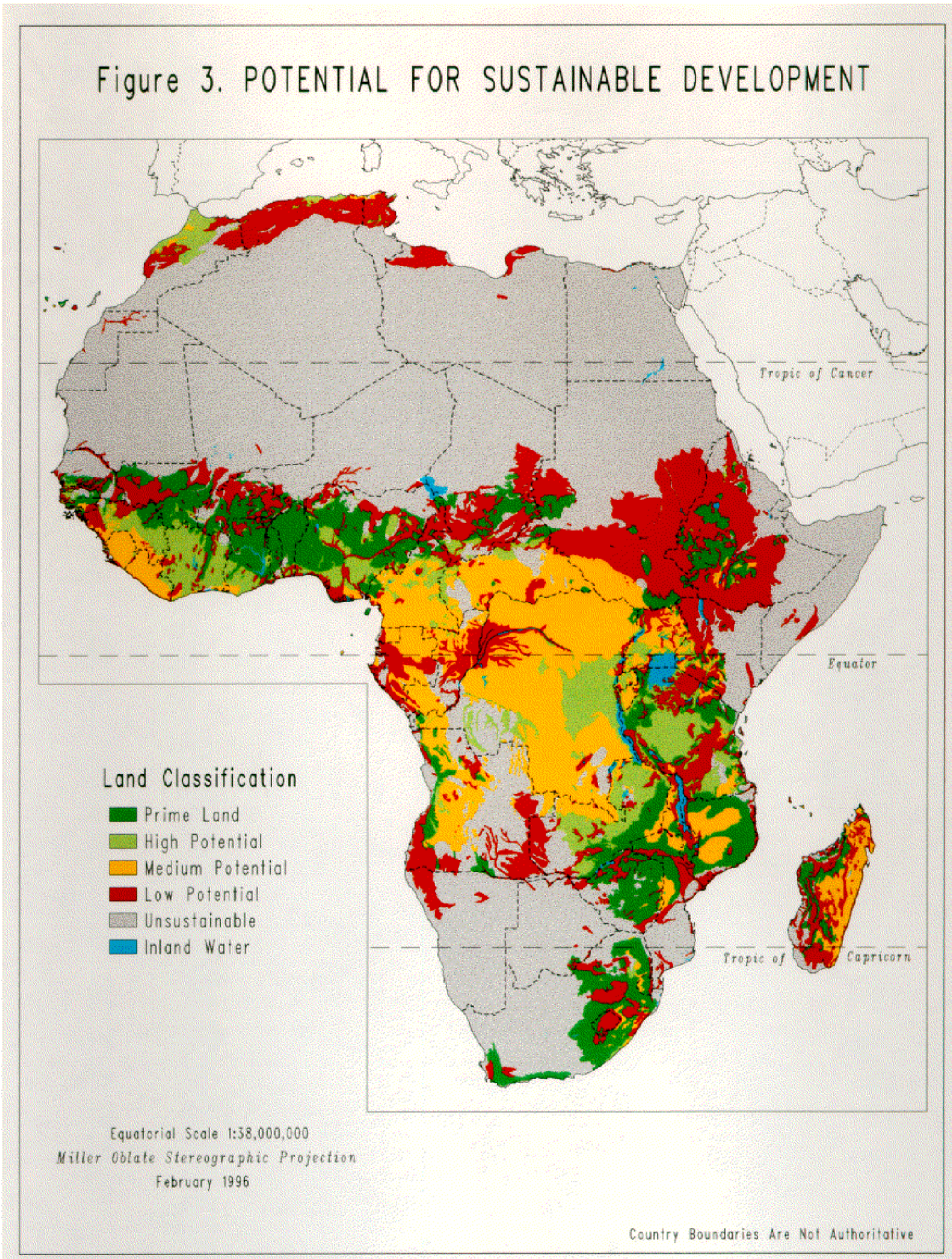


Source: FAOSTAT and K. Sichingwa, Impact project.

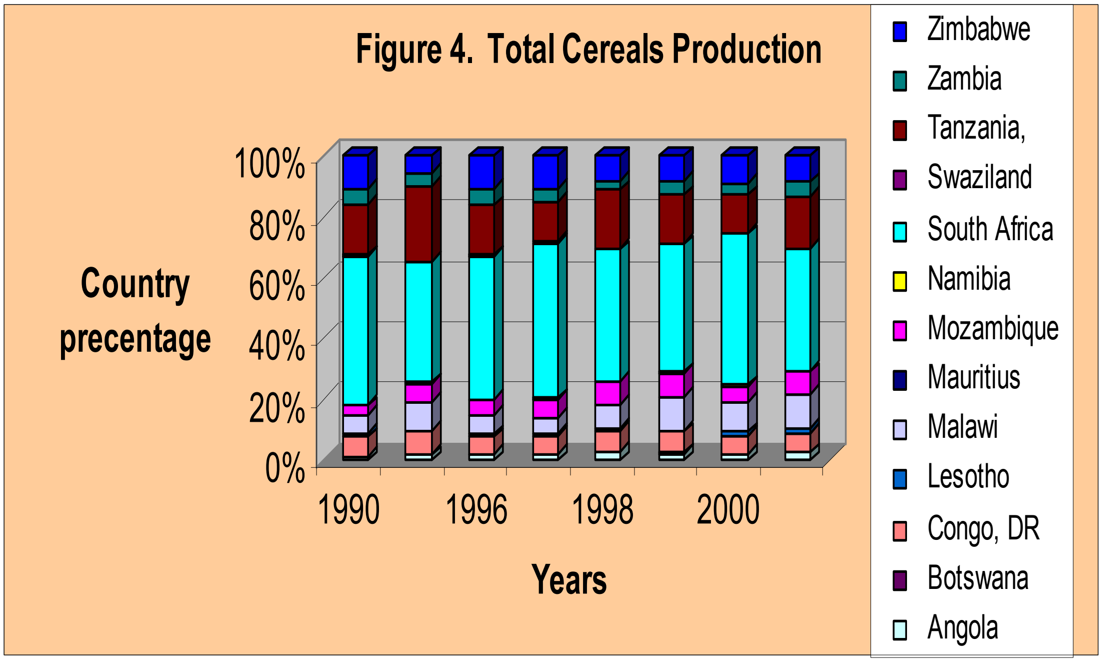
b. <u>Agricultural Production</u>

Maize is the most important cereal and food crop in the region, followed by wheat. Rice, millet, sorghum, pulses such as groundnuts, and root crops such as cassava and sweet potato are also produced. The main cash crops are sugar, tobacco, cotton, horticultural products (cut flowers, fruits and vegetables), and tea. Livestock production includes cattle, sheep, goats, pigs, chickens, horses, donkeys and game such as ostriches. Fisheries production includes both marine and freshwater catches.

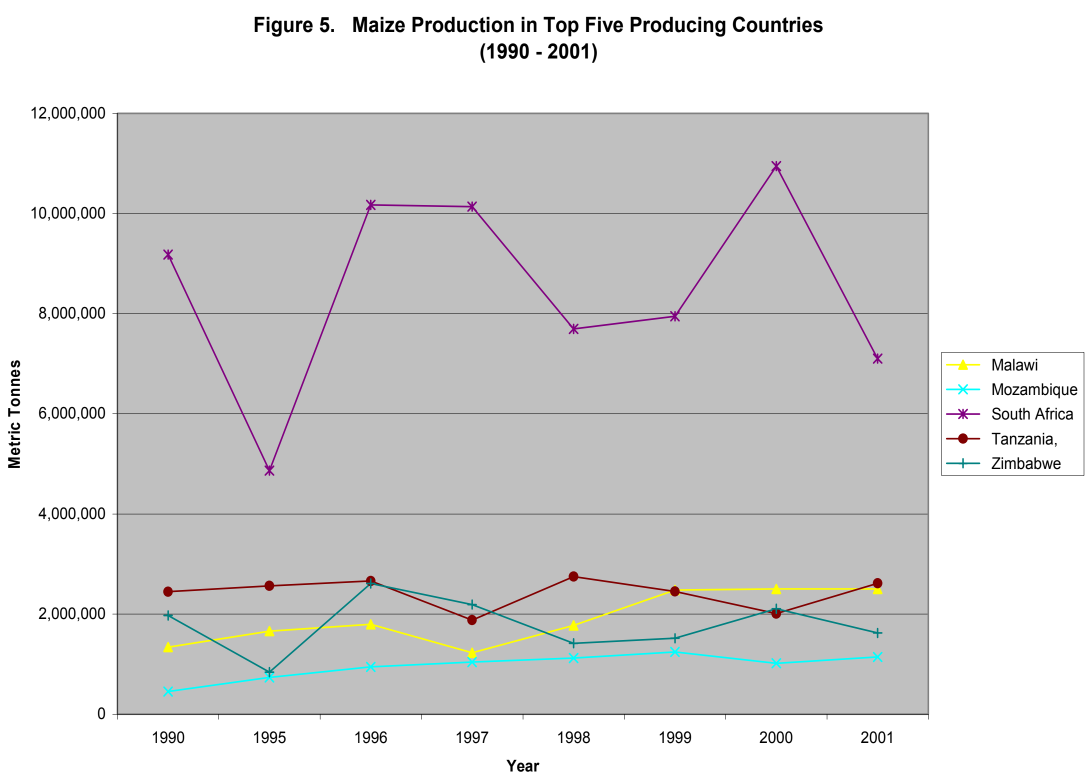
Total cereal production is increasing in the SADC region, while maize production is decreasing. Figures 4 and 5 represent the production trends from 1990 to 2001. The largest decreases in maize production from 2000 to 2001 occurred in Zimbabwe (23%) and South Africa (54%). Drought, government mismanagement and disruption of production due to land seizures (Zimbabwe only) are the main reasons for the decrease in production. Commercial farmers in Zimbabwe have previously produced from 30 to 40 percent of the country's maize crop (up to 70 percent during drought years) as well as more than 90 percent of the wheat crop. (USG Relief Web) Tables on cereal production by commodity and country are found in Annex B.



Source: Classification of Soil Productivity Potential in Africa. World Soil Resources, Soil Survey Division. USDA Natural Resources Conservation Service. Washington D.C. February 1996.



Source: FAOSTAT and K. Sichingwa, Impact project.



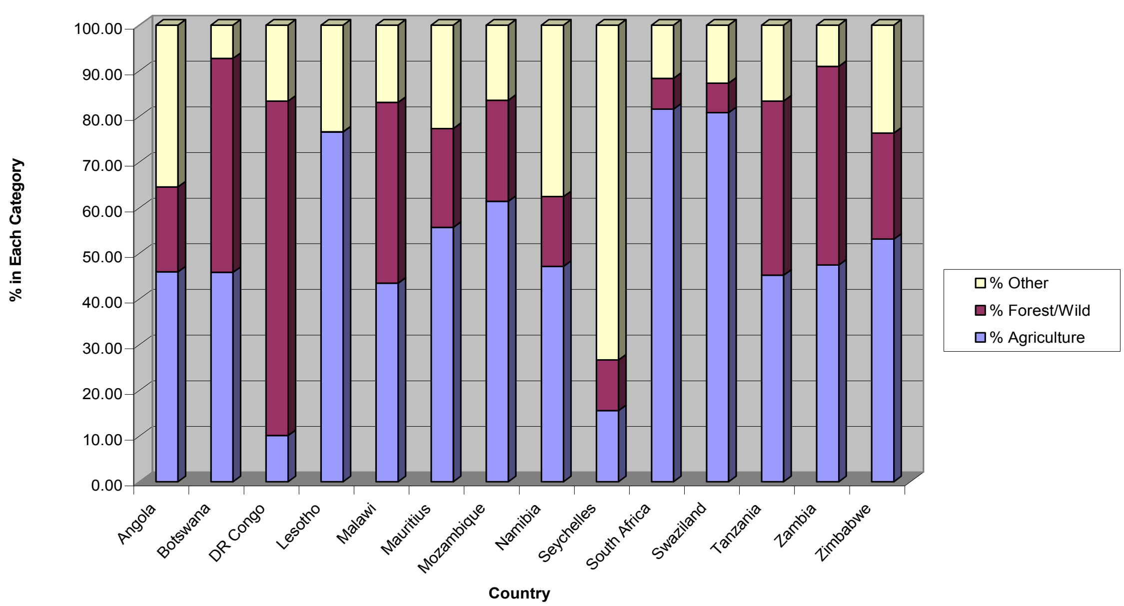
Source: FAOSTAT and K. Sichingwa, Impact project.

Livestock is also an important component of the agricultural sector. Exports earn much needed foreign exchange at the national level while the animals themselves represent a store of wealth at the farmer level. Total stocks of cattle, sheep and pigs in the SADC region have remained fairly constant over the past 10 years, while stocks of poultry and goats have increased by 25 percent and 12 percent, respectively. Livestock production tables by country and category are presented in Annex B.

c. Land Use

Figure 6 shows the general patterns of land use in the region. It will be noted that agriculture represents the greatest proportion of total land use. Agricultural land use consists of annual crop plantings as well as permanent crops (e.g. vineyards, tea and coffee) and permanent pastures. Subsistence farmers typically cultivate very small parcels of land. As population increases, these parcels are further subdivided, creating even smaller plots for cultivation. It is estimated that average smallholder farm size in the SADC region, excluding South Africa, is less than 0.4 hectares. (Impact, Agricultural Extension reports).

Figure 6. SADC Land Use by Category 2002



N.B. Other category includes marshlands and some public lands
Source: FAOSTAT and K. Sichingwa, Impact project

d. Water Use and Management

The water resource profile of the Southern African region is one of scarcity, uneven distribution and is subject to large fluctuations related to changes in climate. In most SADC countries, freshwater is scarce. Signs of water stress are evident in declining water tables due to chronic droughts, over-pumping of underground water and dry season scarcity of water. According to the water scarcity model developed by hydrologist

Falkenmark, which relates water availability to the number of people who depend on a supply of 1 million cubic meters of water per year, South Africa, Malawi and Zimbabwe currently experience scarcity (500-1000 people per 1 million cubic meters). She projects that by the year 2025 Lesotho, Malawi, Zimbabwe and South Africa will experience absolute scarcity (2,000 or more persons depending upon 1 million cubic meters per year). (Falkenmark in article by Mutembwa). Many regional agricultural practitioners believe that the situation will become critical well before 2025.

Water is also unevenly utilized in the region. For example, South Africa possesses only 10 percent of the regions' water resources, yet consumes 80 percent of the total available. As a result of uneven distribution and utilization, potential conflicts over water resources in the Southern African River Basins are growing. (van Wyk) Table 1 shows the water systems under stress and the sources of water stress in the region.

Table 1. Stressed Water Systems in Southern Africa.

Water system	Countries sharing water system	Estimated dependent population	Suspected source(s) of stress
Zambezi	Mozambique, Zambia, Zimbabwe	7 250 000	Industry, agriculture
Limpopo	Botswana, Mozambique, Zimbabwe, South Africa	5 485 257	Industry, hep
Save	Mozambique, Zimbabwe	5 250 000	Agriculture, hep
Kafue	Zambia	2 000 000	Industry, agriculture
Okavango	Botswana	235 257	Drought, agriculture
Luapula	Zambia	2 000 000	Agriculture, industry
Orange	Lesotho, South Africa, Namibia	1 625 000	Agriculture, hep
Kariba	Zambia, Zimbabwe	4 250 000	Industry, agriculture
Tanganyika	Tanzania, Zambia, DRC	6 250 000	Agriculture
Note: hep, hydroelectric power.			

Source: Luke Onyekakeyah. "Strain, Water Demand, and Supply Directions in the Most Stressed Water Systems of Southern Africa ." Water Management in Southern Africa. Chapter 10. IDRC1996.

Agriculture accounts for more that 70 percent of the water consumed in the region, primarily through irrigation, but also via agricultural processing. In 2000, the total area under irrigation in SADC was 2.1 million hectares, of which 70 % were in South Africa. (FAOSTAT)

e. Agriculture and Gender

"Gender equity" is the catchword to bring equal rights to women in rural communities, and it is used loosely to describe the aims of many reform programs and laws to correct imbalances of the past. Unfortunately, the gaps remain wide between the rights of men and women in agriculture and land tenure. Inequality amongst men and women in the agricultural sector persists today. Women have traditionally been largely responsible for subsistence agricultural production in the region and indeed throughout much of the African continent, women produce the food crops while men control the cash crops. A recent conference on land reform and gender hosted by the University of the Western Cape Program for Land and Agrarian Reform highlighted the failure of South Africa's existing land reform program to improve the status of rural women. One of the problems cited was the use of policies which allowed male household heads to retain economic control over resources at the expense of female members. In addition, women were found to have little security in their own right as farm workers, but continued to rely on their husbands to gain access to housing and employment. (InterPress Service, 1999)

f. Government Role in Agriculture

There is large variability in the types and extent of national agricultural programs and policies within the SADC region. Governments can control commodity prices, marketing channels, and commodity supply, for example. They can also encourage production by providing inputs such as seeds, fertilizer, and pesticides to farmers. The result is often disastrous. For example, stockpiles of commodities purchased by government marketing boards spoil while waiting for transport to markets. Budgetary constraints are making it more difficult for governments to control markets. Further information is needed to determine the extent and the benefits of government intervention in agricultural production and markets.

g. Private Sector Role in Agriculture

The role of the private sector in improving agriculture can be described as a "Catch-22" situation. Farmers need markets in order to sell surplus production, but agribusinesses will not make the necessary investments to create demand for a crop unless they are reasonably certain of the amount that can be produced by farmers. There is, however, evidence (IITA and ICRISAT) that the private sector can be a valuable partner with farmers when linkages are formed to connect producers and consumers based on the specific needs of each group. For example, when industry can specify the variety of sorghum it needs in order to create a product which is of acceptable quality to consumers and then work with non-governmental agencies, research and extension services, etc. to supply the farmers with seeds, inputs and expertise to produce that particular crop, supply and demand can be capably coordinated. As governments become less able to provide necessary services to farmers to assist with production and marketing constraints, the private sector is perceived as a valuable partner in linking producers with end-users.

h. Agricultural Trade and Policies

The agricultural export trade of Southern Africa is dominated by a fairly narrow range of agricultural commodities and products, primarily sugar, cotton, meat, tea, coffee, and tobacco. Total agricultural export earnings in 2000 ranged from $268 million in Mozambique to nearly $30 billion in South Africa, which accounted for 67% of total agricultural exports in SADC. Primary or raw products are still the predominant form of these exports, but value-added agricultural products are slowly increasing their export share. (FAOSTAT) Export and import tables by country are presented in Annex B.

Intra-SADC trade is relatively small in size and generally there is a limited degree of market integration and weak demand for agricultural inputs and commodities. (Holdcroft, et.al.) The SADC trade protocol was created in 2000 to liberalize intra-regional trade based on equitable and transparent standards, thereby reducing or eliminating tariffs as well as non-tariff trade barriers. At present, 12 countries have ratified the agreement, but implementation costs are high and progress has been slow. An annex on food safety (sanitary and phytosanitary regulations) has been prepared to facilitate implementation of standards in compliance with the World Trade Organization (WTO), improving market access (regional and international) for SADC agricultural production. The annex has not yet been approved by the Council of SADC Ministers nor endorsed by member countries.

II. CROSS-CUTTING ISSUES

a. Performance of the agricultural sector in poverty reduction and improving the welfare of Southern Africans: agriculture continues to provide the main source of employment for the rural poor in the Southern African region, employing a majority of the population. The poor play a role in "unsustainable agricultural intensification, expansion of farming into marginal lands, and over-exploitation of vegetation. As a consequence, for the poor land degradation also tends to be more serious because they lack assets to cushion the effect." (Scherr) The cycle of poverty continues as productivity and overall production decreases.

b. Soil fertility is declining: a major component of low agricultural productivity is poor soil fertility. Reliance on crops such as maize depletes soils of essential nutrients (e.g. nitrogen) as opposed to leguminous crops such as groundnuts which add nutrients. Recycling organic material into the soil alone is not adequate; fertilizer is costly and inaccessible to the majority of subsistence farmers. Appropriate soil management techniques require additional labor that is often unavailable.

c. Land use conflicts: There is increasing pressure on land in the region due to growing populations, degradation from livestock overgrazing, poor soil and water management, as well as issues of land tenure. Access to land and its use are critical issues for the region. Poverty, unemployment, and income inequality are exacerbating the conflict.

d. Urban migration: urban populations have been increasing more rapidly than rural populations. From 1990 to 2001, the total urban population increased by 38% in the region while the total rural population increased by only 16 percent. (FAOSTAT) Urban migration represents a shift of potential farm labor out of the rural areas, reducing the amount available for cultivation. Reasons for the increase in migration to the urban areas include land pressure, slow rate of rural development, civil strife, declining agricultural productivity, droughts and famine as well as perceptions of improved livelihoods in urban areas. This migration has an impact on food security by reducing the amount of cultivated land and the potential yield. (Leadership for Environment and Development)

e. Impact of HIV/AIDS on agricultural production and labor: average HIV/AIDS prevalence in the SADC region in 2000 was nearly 15% among the 15-24 age group (World Bank). The range of prevalence is from 0.04% in Mauritius to 34% in Botswana. Even without the devastation of AIDS, many SADC countries struggle to feed their burgeoning populations and improve the quality of life for their people. The countries hardest hit by the AIDS pandemic find it even harder to feed their people. Six of these countries are part of the SADC region: Democratic Republic of Congo, Malawi, Mozambique, Tanzania, Zambia, and Zimbabwe.

AIDS reduces economic productivity because the disease strikes adults during their most productive years. As population growth outstrips economic performance, the world's poorest countries will grow even poorer in a cycle in which AIDS and malnutrition work together to undermine food security. Lower productivity will require agricultural production systems of using less inputs including labor.

The most critical impact of AIDS is the damage it inflicts on the productive capacity of the economy as working-age adults grow sick and die. Weaker economies mean less access to food through domestic production or international trade. As resources are directed toward the fight against AIDS in urban areas, the health of rural residents will decline. The effects of HIV/AIDS and other diseases on farming families will pose a major threat to the region's food production. ((IFPRI Vision 2020 study initiative)

Poor nutrition resulting from food shortages in the Southern African region is likely to contribute to an increase in HIV/AIDS—related deaths. Lesotho, Malawi, Mozambique, Zambia and Zimbabwe were identified as the most affected by food shortages ((IRIN (UN Office for the Coordination of Humanitarian Affairs) news report 9 September 2002 quoting an FAO report on HIV/AIDS))

f. Impact of agricultural research on productivity: agricultural research has made great strides in developing improved agricultural technologies for crop and livestock production that are suitable for the soil and climatic conditions of Southern Africa. A major shortcoming, however, has been the poor rates of adoption of these technologies to boost productivity and increase production. During the past twenty years, agricultural production has trailed population growth in the region. This is due in part to agricultural extension services that, as part of the National Agricultural Research Services (NARS), continue to lose resources and trained manpower. Another important factor may be that agricultural research is not keeping in step with the changing needs and management strategies of the majority of farmers who increasingly are faced with limited resources and market access. (Freeman, et. al)

There have been some positive developments in technology transfer in the region over the past few years, primarily as a result of increased efforts to forge partnerships between the private sector, NGOs, NARS and the International Agricultural Research Institutions (IARCs). Adoption of improved varieties of cassava in Malawi and sorghum in

Tanzania, Zambia, Zimbabwe and Botswana has increased as a result of intensified efforts to supply farmers with better seeds and planting material as well as appropriate training on soil and crop management. (SARRNET, SMIP)

g. Climate change: The Intergovernmental Panel on Climate Change (IPCC) has announced that global warming has enormous implications for agriculture, although there is some contention among scientists as to the exact linkages and impacts. Small increases in the earth's surface temperature will cause decreases in agricultural production, particularly in Sub-Saharan Africa. Southern Africa is one of the most vulnerable regions to the impact of climate change for several reasons. Firstly, it relies on rainfed, subsistence agriculture and is dependent on water-demanding maize, which means that food security is strongly linked to rainfall. Secondly, population growth in the region has outstripped the capacities of the municipalities to provide public services such as sanitation, water supply, and health care. As a result, weather extremes have major consequences for population centers and urban areas. The result is an increase in water and vector-borne diseases when floods occur.(Sustainable.allAfrica.com)

h. Biotechnology: While genetically-modified crops continue to generate controversy and political concerns, it seems likely that as the food security situation deteriorates in Southern Africa, and greater knowledge of Genetically Modified Organisms(GMOs) spreads, more countries will accept these crops (maize and wheat) as food aid in order to prevent large-scale starvation. Zimbabwe has agreed to accept 10,000 metric tons of GM maize as food aid on the condition that the grain be milled before it enters the country. Zambia has recently agreed to feed GM grain from the World Food Programme to 130,000 refugees from DRC and Angola, but is reluctant to supply its own citizens with the same. (IRIN News Agency, BBC News)

i. Food Safety Standards: the increasing globalization of the trade in agricultural products requires that WTO standards of food safety be met in order to compete in the world marketplace. There is increasing pressure on SADC countries to make the necessary changes to comply with these standards or risk losing export markets, and face further economic decline.

j. Precision Agriculture: this is a new term for improving agricultural production using geographic information systems (GIS) via global positioning satellites (GPS) to match crops to the best growing conditions based on soil and climate data. The U.S. is leading the effort to introduce precision agriculture technologies into Southern Africa. The objective of the program is to maximize use of farm resources while minimizing environmental impacts. While this type of agriculture is not appropriate for subsistence farmers who represent the majority of farmers in the region, smallholder commercial farmers who have the ability to produce surpluses may benefit from a well-targeted introduction of this technology.

III. MAJOR TRENDS AND ISSUES FROM 2003-2010

- Population will continue to increase in the region, averaging 1.8 percent per year. (World Bank)

- Climate will continue to be subject to volatility with erratic rainfall patterns likely to produce drought and floods

- Agricultural production will continue to decline in the region due to low productivity, unfavorable policy environments, weather instability, labor constraints and other resource pressures thereby increasing food insecurity

- Agricultural production, particularly cereal production, will decrease most profoundly in Zimbabwe as a result of the redistribution of commercial farm land and loss of productive capacity in the near term. This decrease in production will affect other SADC countries that rely on grain imported from Zimbabwe.

- HIV/AIDS will reduce productivity of the current agricultural labor force (those living with the disease) as well as reduce the total numbers of available labor. This reduction will be most pronounced in rural areas where subsistence farmers reside. In addition, there will be an increase in child-headed households throughout the region due to AIDS-related deaths of their parents.

- Water availability will decrease, particularly in Malawi, South Africa, and Zimbabwe.

- Food aid is likely to increase based on declining agricultural production and inability of countries to afford imports based on weakening balance of payments positions and lack of foreign exchange reserves. Food shortages, however, may be exacerbated by donor fatigue and poor governance.

- Land degradation will worsen as a result of overpopulation, poverty, overgrazing by livestock, poor soil management practices and extremes of rainfall and drought.

- South Africa will continue to be the dominant agricultural producer in the region and will strongly influence SADC trade.

- Land reform and redistribution will remain an issue in the region with Zimbabwe undermining its commercial agricultural sector in the interim, affecting food security and foreign exchange earnings.

- Land reform issues in Namibia and South Africa could heat up as the present pace of the redistribution efforts are slow and the pressures of significant income inequality in these countries gain political momentum.

- Urban migration will increase as the population seeks employment and improved livelihoods outside of the rural areas. There will be a negative impact on the financial and physical ability of governments to meet the needs of the increased urban populace.

- Liberalization of agricultural trade within the SADC region will continue slowly given the high costs of implementation and national concerns (shrinking capital resources and political stability)

IV. STRATEGIC OPTIONS

- Promote improvement in governance. All of the focus group participants believe improved governance through transparent democracy is essential. This requires active promotion at all levels. Seek cross cutting linkages that promote accountability and transparency by demonstrating that such a process benefits everyone's interests.

- Promote more efficient water management and utilization through policy reform followed by sustained efforts to promote active implementation. Facilitate the region wide introduction of water saving technology through the private sector.

- Enhance linkages from smallholder commercial farmers through to international investors. Work with the private sector to expedite enhancement of financing, input provision, and marketing. Build upon some existing experiments linking smallholders with large commercial enterprises. South Africa already has several successful examples.

- Continue efforts to facilitate agriculture trade in all of its dimensions. Use regional mechanisms to encourage governments to reduce their barriers to trade, both within their own nation and across borders. Intra-regional trade should be the initial priority. Seek markets in Europe and the Middle East.

- Seek out niche marketing and assist rural communities in adding value.

- Facilitate southern African efforts to more effectively rationalize equitable and stable property and resource rights throughout the region.

- Facilitate efforts to reduce land degradation and increase soil fertility.

V. ANALYTICAL GAPS

1. Land tenure:
   a. property rights – what practices prevail in the region, how do these affect productivity, equity, and governance.
   b. farm composition. FAO data indicates the majority of land in the region is farmed by subsistence farmers. What is their production, number of people per farm, crops, etc.

2. Water: How much is available, how much is lost, how can it be better managed.

3. Trade: More accurate data is needed on agricultural trade, especially informal trade both locally and between nations.

4. Policy: assessments of national agricultural policy frameworks (including pricing policies) and most importantly how policy is actually implemented are needed.

VI. POTENTIAL SCENARIOS FOR AGRICULTURE IN THE SOUTHERN AFRICA REGION FROM 2003 TO 2010

Enhanced

The participants believe that agriculture is critically important to the growth of the region, because it is the largest source of employment, it provides the food for the region, and it offers the possibility to substantially increase trade. The participants believe that modest but sustained growth through smallholder commercial agriculture is possible. Because of the mammoth obstacles facing the region none of the participants believe that huge gains in terms of yields, trade, or income are possible. Modest gains in combination with efforts to neutralize the obstacles could result in establishing solid platforms from which to advance in the second decade of the millennium.

Governance is a major issue for all sectors including agriculture. Zimbabwe is a dramatic example of disastrous governance. In this optimistic scenario within three years the current administration passes from the scene replaced by a competent and democratically elected government. The African Union, which had been slow to form, supports new democratic elections. Refugee flows slow and by the fifth year stop. The Zimbabwean economy, led by a resumption of tourism, begins to slowly stabilize. Most importantly the Zimbabwe ceases to export chaos. Within the region governments renew their commitment to policy reform and implementation.

Land use rationalization that accommodates both property owners and traditional groups begins. South Africa in particular makes significant progress so that the demands for land by historically disadvantaged groups are met within the context of respecting the rule of law and maintaining production. However with the positive changes in Zimbabwe greater and more rapid change proves possible in Mozambique, Zambia, and Namibia.

Water, its allocation, management and conservation will be a major factor in determining the success or failure of programs in either the agriculture or natural resources sectors. In response to the negative climatic changes the nations of the region link together with various private businesses and non-government organizations to begin region wide conservation management programs. The region experiences more erratic and lower rainfall and occasional floods throughout the strategy period but new water management efforts are adequate to conserve water and control disaster.

Smallholder commercial farmers increasingly link with large commercial enterprises. Initially this linkage is primarily in basic commodities but gradually more specialty crops are introduced. This results in improved services to the farmers, greater yields, and an increase in trade.

AIDS has a direct effect on agriculture by reducing the labor supply and further stressing the already limited supply of services. The moral force of Nelson Mandela links with the financial resources of Bill Gates and together they forge a coalition with the private Southern African medical community. This neutralizes the go-slow attitude of the Government of South Africa on AIDS, which then gradually adopts a more positive and scientific attitude towards preventing AIDS. The majority of the SADC nations, which have been largely in denial concerning AIDS, begin to change their attitude and adopt a more pro-active stance regarding AIDS prevention. The region begins to adopt aggressive and standardized policies concerning the prevention of AIDS. Effective region wide prevention programs develop. The death rate remains high throughout the period but the infection rate begins a gradual decline reaching a region wide level of 12% at the end of the strategy period. While the infection rate is still high it is manageable.

Current

In the view of the participants maintaining current levels of prosperity and development will require a major effort because of the numerous negative forces confronting the region.

<u>Governance</u> Mugabe remains in power for much of the strategic period. When he passes from the scene, he is replaced by ZANU/PF leaders equally committed to sustaining themselves but some what more subtle in their methods. Fortunately refugee flows stabilize and prove manageable for the rest of the region. Strong outside pressure confines the Zimbabwe infection within the frontiers of that nation. Investors, both regional and international become accustomed to a rogue state in the midst of the region. Savings and investment remains at approximately current levels. The debacle in Zimbabwe and the unwillingness of SADC Heads of State to engage on the issue prevents significant region wide progress in establishing and stabilizing land use and property rights.

<u>Water</u> Regrettably in response to the negative climatic changes the nations of the region fail to link together or to join with various private businesses and non-government organizations to begin region wide conservation management programs. Rainfall for the strategic period is generally below historic norms, which in combination with inadequate conservation efforts further tightens the supply. Local shortages occur and grow more frequent and damaging. There are several humanitarian crises because of drought. Fortunately liberalization of trade policies in combination with donor humanitarian assistance is sufficient to keep loss of life to a minimum.

Modest efforts are made to link farmers, communities and community-based enterprises with regional and international businesses. Employment grows but only slowly. Some local successes are achieved but most farmers in the region do not benefit.

<u>AIDS</u> The South African Government grudgingly complies with court order to provide AIDS treatment. This slowly releases other sources of resources and more proactive prevention programs start. Society, throughout the region, begins to realize that prevention is possible. The death rate remains high but the infection rate slowly declines, reaching 18 to 20 per cent by the end of the strategic period.

Chaos

Things could very easily come apart; in fact the odds are probably greater of that than of significant sustainable progress.

Governance   The current Zimbabwe administration remains in power and follows ever more repressive policies. SADC governments remain silent on bringing Zimbabwe in compliance with the basic international norms of governance and human rights; NEPAD and the African Union are still born as a result.   Humanitarian crisis become an almost yearly occurrence in Zimbabwe. Flows of refugees increase to disastrous proportions Crime grows exponentially in Botswana and South Africa.   Extra legal constitutional change becomes the norm in the region as democratic institutions change.   Confiscation type land and property redistribution actions become commonplace. South Africa is particularly affected. Domestic savings and investment declines, so too does FDI. Services, both medical and social, become unsustainable.

Water The continuation of the Zimbabwe crisis places SADC under greater pressure. One casualty is SADC already limited capacity to effect technical change. Water management declines even further.   SADC's decline means that nations increasingly go their own way in terms of water management. Private businesses make their own deals, which further reduces overall supply. The lack of an effective regional response to the water issue sparks a sharp decline in the availability of funding for conservation and management efforts. There is one major humanitarian crisis. Loss of life is significant because trade restrictions prevent the marketing of food where it is most needed and because the institutions needed to distribute donor provided food have fallen into disrepair.

AIDS Botswana continues it aggressive AIDS prevention programming. In South Africa Mandela passes from the scene and with him the moral force pushing for effective AIDS programs.   The government of South Africa ignores court orders to provide drug treatment to high-risk groups. In the face of this opposition the private sector is unable to organize to counter the pandemic. The death rate remains high and the infection rate declines only minimally.

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ANNEX A

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ANNEX B

STATISTICAL DATA TABLES*

***FROM FAO STATISTICAL DATABASES**
PREPARED BY K. SICHINGWA, IMPACT PROJECT

CEREAL PRODUCTION IN SADC

Cereals,Total Area Harv (Ha)	1990	1995	1996	1997	1998	1999	2000	2001
S Afr Development Commu	17,602,933	17,525,437	18,488,818	18,630,107	17,261,597	17,391,928	17,705,595	17,138,184
Angola	775,127	745,000	809,485	807,654	887,838	887,148	907,300	917,400
Botswana	202,900	210,500	422,500	118,500	65,300	97,300	190,042	190,042
Congo, Dem Republic of	1,863,559	1,933,734	1,993,445	1,989,014	2,080,009	2,099,940	2,065,972	2,032,859
Lesotho	233,450	104,833	217,348	210,785	181,550	175,809	261,479	262,040
Malawi	1,425,342	1,375,376	1,397,520	1,398,670	1,538,738	1,587,563	1,642,195	1,637,500
Mauritius	545	75	90	46	50	41	130	130
Mozambique	1,549,497	1,727,158	1,677,800	1,863,546	2,011,800	1,762,392	1,578,640	2,038,051
Namibia	214,180	320,121	326,027	354,384	275,009	330,668	317,908	275,865
South Africa	6,146,300	5,291,830	5,450,520	5,791,360	4,639,635	4,570,283	5,036,373	4,616,290
Swaziland	93,377	62,215	63,124	62,247	66,384	63,215	56,007	56,007
Tanzania, United Rep of	2,627,560	3,254,900	3,250,100	3,055,832	3,295,208	3,153,693	3,152,570	2,708,820
Zambia	895,163	655,985	822,749	804,559	558,526	760,426	710,099	733,000
Zimbabwe	1,575,933	1,843,710	2,058,110	2,173,510	1,661,550	1,903,450	1,786,880	1,670,180

Cereals,Total Production (Mt)	1990	1995	1996	1997	1998	1999	2000	2001
S Afr Development Commu	23,548,801	18,930,866	29,078,764	25,921,189	23,564,958	23,907,638	27,673,654	23,949,026
Angola	248,500	296,000	525,140	456,885	620,612	549,781	575,000	585,200
Botswana	52,630	42,400	111,429	31,331	11,908	19,800	22,169	22,169
Congo, Dem Republic of	1,490,589	1,475,203	1,556,659	1,583,696	1,674,853	1,642,603	1,615,790	1,589,641
Lesotho	241,903	81,221	255,717	206,122	171,261	173,852	393,794	397,550
Malawi	1,413,293	1,778,056	1,943,377	1,349,445	1,904,024	2,634,797	2,658,108	2,657,500
Mauritius	2,285	289	438	232	259	201	612	620
Mozambique	734,326	1,126,982	1,379,000	1,530,906	1,688,000	1,821,615	1,472,736	1,673,849
Namibia	97,948	62,331	88,859	172,855	54,873	71,595	138,729	106,919
South Africa	11,555,300	7,491,063	13,647,496	13,229,711	10,190,978	10,034,513	13,732,204	9,603,170
Swaziland	99,469	78,930	152,265	109,626	126,307	114,000	85,589	85,589
Tanzania, United Rep of	3,842,000	4,629,300	4,718,800	3,390,281	4,494,800	3,800,502	3,428,970	4,131,100
Zambia	1,210,317	882,058	1,572,874	1,137,129	797,593	1,057,419	1,037,324	1,069,200
Zimbabwe	2,560,241	987,033	3,126,710	2,722,970	1,829,490	1,986,960	2,512,629	2,026,519

Wheat Area Harv (Ha)	1990	1995	1996	1997	1998	1999	2000	2001
S Afr Development Commu	1,741,107	1,501,909	1,451,348	1,570,166	933,154	871,984	1,021,851	1,012,889
Angola	3,127	3,000	3,000	3,000	3,500	2,300	2,300	2,400
Botswana	500	500	500	500	300	300	300	300
Congo, Dem Republic of	7,290	8,367	7,949	8,021	8,093	7,704	7,304	6,924
Lesotho	40,851	17,199	22,186	28,511	25,000	12,523	30,404	30,500
Malawi	2,119	2,543	2,686	2,271	2,483	2,101	2,278	2,500
Mozambique	4,000	1,800	1,800	1,800	1,800	1,800	1,200	1,200
Namibia	1,000	700	1,300	1,234	480	656	608	765
South Africa	1,563,000	1,363,000	1,293,800	1,382,000	748,000	718,000	860,000	860,000
Swaziland	400	300	200	200	220	200	200	200
Tanzania, United Rep of	50,300	54,500	56,600	73,936	80,000	57,400	69,180	60,000
Zambia	12,520	10,000	10,327	10,693	11,278	12,000	12,077	12,100
Zimbabwe	56,000	40,000	51,000	58,000	52,000	57,000	36,000	36,000

Wheat Production (Mt)	1990	1995	1996	1997	1998	1999	2000	2001
S Afr Development Commu	2,229,470	2,228,655	3,183,655	2,969,974	2,418,005	2,262,585	2,618,054	2,620,886
Angola	2,500	5,000	5,000	5,000	6,000	4,000	4,000	4,200
Botswana	1,000	900	900	900	500	500	500	500
Congo, Dem Republic of	6,750	10,818	10,255	10,342	10,443	9,900	9,385	8,897
Lesotho	33,162	10,603	29,599	33,722	28,969	15,413	50,755	51,000
Malawi	1,639	1,830	2,315	1,339	1,842	1,655	1,815	2,000
Mozambique	5,000	2,000	2,000	2,000	2,000	2,000	1,000	1,000
Namibia	4,425	2,800	5,700	5,721	2,896	3,644	3,429	6,119
South Africa	1,709,000	1,977,254	2,711,991	2,428,840	1,892,080	1,733,030	2,131,870	2,131,870
Swaziland	1,300	450	300	300	350	300	300	300

Tanzania, United Rep of	83,700	84,000	78,000	111,000	129,000	82,400	90,000	90,000
Zambia	55,011	50,000	57,595	70,810	63,925	89,743	75,000	75,000
Zimbabwe	325,983	83,000	280,000	300,000	280,000	320,000	250,000	250,000

Rice, Paddy Area Harv (Ha)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	1,026,328	1,174,516	1,159,582	1,108,472	1,230,012	1,207,008	1,176,427	1,084,664
Angola	4,000	22,000	23,000	23,000	24,000	20,000	20,000	20,000
Congo, Dem Republic of	487,190	497,094	460,914	426,621	480,340	463,576	447,417	431,821
Malawi	29,042	36,471	41,223	40,368	41,786	45,811	43,542	45,000
Mauritius	3	0	0	0	0	0	0	0
Mozambique	110,160	129,605	144,000	165,274	181,000	186,086	157,936	174,223
South Africa	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
Swaziland	400	200	57	80	15	15	50	50
Tanzania, United Rep of	384,500	477,900	479,000	439,217	492,306	473,900	495,450	401,070
Zambia	9,533	9,746	9,888	12,412	9,065	16,120	10,532	11,000
Zimbabwe	200	200	200	200	200	200	200	200

Rice, Paddy Production (Mt)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	1,290,636	1,288,676	1,330,337	1,155,591	1,464,040	1,168,596	1,124,268	1,134,540
Angola	3,000	19,000	20,000	20,500	21,000	16,000	16,000	16,000
Congo, Dem Republic of	392,300	365,818	347,947	322,099	362,657	350,000	337,800	326,025
Malawi	43,280	52,077	72,629	65,690	68,679	92,111	98,675	98,000
Mauritius	20	0	0	0	0	0	0	0
Mozambique	96,355	112,982	139,000	180,218	191,000	186,187	151,388	166,945
South Africa	3,000	3,000	3,000	3,000	3,000	2,900	3,000	3,000
Swaziland	3,000	1,000	265	411	105	100	170	170
Tanzania, United Rep of	740,000	722,700	733,800	550,800	810,800	506,200	508,000	514,000
Zambia	9,213	11,699	13,296	12,473	6,399	14,698	8,835	10,000
Zimbabwe	468	400	400	400	400	400	400	400

Barley Area Harv (Ha)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	121,610	137,400	139,500	143,400	123,200	112,519	88,490	88,690
Congo, Dem Republic of	500	500	500	500	500	500	500	500
Lesotho	260	1,500	1,500	1,500	1,100	769	800	800
South Africa	110,000	125,000	127,000	132,000	112,000	101,700	77,690	77,690
Tanzania, United Rep of	3,500	3,000	2,500	2,400	2,700	2,350	2,300	2,300
Zambia	2,500	1,900	2,200	2,000	1,900	2,200	2,200	2,400
Zimbabwe	4,850	5,500	5,800	5,000	5,000	5,000	5,000	5,000

Barley Production (Mt)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	296,474	321,200	194,800	198,600	220,921	108,409	157,390	157,590
Congo, Dem Republic of	300	300	300	300	300	300	300	300
Lesotho	100	400	500	500	300	200	200	200
South Africa	262,000	300,000	176,000	182,000	203,821	92,409	142,390	142,390
Tanzania, United Rep of	5,300	6,000	5,000	4,000	6,000	5,500	5,000	5,000
Zambia	2,300	1,500	2,000	1,800	1,500	2,000	2,000	2,200
Zimbabwe	26,474	13,000	11,000	10,000	9,000	8,000	7,500	7,500

Maize Area Harv (Ha)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	12,258,630	11,476,799	12,155,156	12,577,516	12,230,039	12,398,238	12,733,165	12,132,175

Angola	658,000	600,000	569,338	620,126	682,338	672,941	690,000	700,000
Botswana	40,700	20,000	100,000	30,000	8,000	20,000	83,258	83,258
Congo, Dem Republic of	1,234,449	1,280,933	1,377,373	1,427,425	1,460,960	1,500,626	1,481,852	1,463,314
Lesotho	155,976	76,955	150,908	144,116	125,000	132,360	177,537	177,500
Malawi	1,343,784	1,229,187	1,242,588	1,233,538	1,391,365	1,446,669	1,507,088	1,500,000
Mauritius	542	75	90	46	50	41	130	130
Mozambique	1,010,902	1,080,437	1,008,000	1,153,575	1,248,000	1,152,155	1,084,153	1,275,216
Namibia	19,180	21,021	27,827	31,550	27,029	35,512	38,600	20,900
South Africa	4,163,000	3,526,000	3,761,000	4,023,060	3,559,750	3,567,383	3,868,183	3,500,000
Swaziland	91,690	59,726	61,467	60,905	65,149	62,000	54,757	54,757
Tanzania, United Rep of	1,631,260	1,653,600	1,646,000	1,564,036	2,028,026	1,764,370	1,744,000	1,457,100
Zambia	763,277	520,165	675,565	649,039	410,372	598,181	586,907	600,000
Zimbabwe	1,145,870	1,408,700	1,535,000	1,640,100	1,224,000	1,446,000	1,416,700	1,300,000

Maize Production (Mt)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	17,981,273	12,783,682	21,475,049	19,284,921	17,375,578	18,384,258	21,536,922	17,932,637
Angola	180,000	211,000	398,158	369,505	504,662	428,045	450,000	460,000
Botswana	11,800	2,310	24,629	11,624	1,121	5,000	9,347	9,347
Congo, Dem Republic of	1,008,000	1,007,577	1,101,130	1,167,307	1,215,339	1,199,000	1,184,000	1,169,188
Lesotho	171,579	62,531	188,489	142,050	118,578	124,549	297,135	300,000
Malawi	1,342,809	1,661,457	1,793,461	1,226,478	1,772,392	2,479,406	2,501,311	2,500,000
Mauritius	2,265	289	438	232	259	201	612	620
Mozambique	452,911	734,000	947,000	1,042,026	1,124,000	1,246,078	1,019,033	1,143,263
Namibia	28,523	18,431	18,559	50,134	14,888	16,551	49,300	27,700
South Africa	9,180,000	4,866,000	10,171,000	10,136,000	7,693,000	7,946,000	10,943,000	7,100,000
Swaziland	94,173	76,052	150,700	108,207	125,205	113,000	84,519	84,519
Tanzania, United Rep of	2,445,000	2,566,600	2,663,000	1,879,000	2,750,000	2,451,000	2,009,000	2,616,000
Zambia	1,092,671	737,835	1,409,485	960,188	638,134	855,868	881,555	900,000
Zimbabwe	1,971,542	839,600	2,609,000	2,192,170	1,418,000	1,519,560	2,108,110	1,622,000

Rye Area Harv (Ha)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	60,000	46,530	46,300	40,000	40,000	40,000	40,000	40,000
South Africa	60,000	46,530	46,300	40,000	40,000	40,000	40,000	40,000

Rye Production (Mt)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	3,000	2,952	3,366	3,200	3,000	3,000	3,000	3,000
South Africa	3,000	2,952	3,366	3,200	3,000	3,000	3,000	3,000

Oats Area Harv (Ha)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	30,896	28,810	25,910	30,810	26,008	22,486	25,490	25,490
Congo, Dem Republic of	0	0	0	0	0	0	0	0
Lesotho	700	600	700	600	450	236	240	240
South Africa	30,000	28,000	25,000	30,000	25,308	22,000	25,000	25,000
Zimbabwe	196	210	210	210	250	250	250	250

Oats Production (Mt)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	43,391	39,200	34,400	31,200	26,308	23,144	25,750	25,750
Congo, Dem Republic of	0	0	0	0	0	0	0	0
Lesotho	1,000	800	1,000	800	600	350	350	350
South Africa	42,000	38,000	33,000	30,000	25,308	22,394	25,000	25,000
Zimbabwe	391	400	400	400	400	400	400	400

Millet Area Harv (Ha)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	866,841	1,315,411	1,434,750	1,373,127	1,153,193	1,211,138	1,065,734	1,020,275
Angola	110,000	120,000	214,147	161,528	178,000	191,907	195,000	195,000
Botswana	9,000	10,000	22,000	8,000	7,000	7,000	6,000	6,000

Congo, Dem Republic of	56,130	68,000	70,479	47,912	49,206	50,534	51,899	53,300
Malawi	19,583	33,652	34,994	38,634	35,166	33,672	34,257	35,000
Mozambique	20,000	85,040	87,000	90,461	101,000	96,000	83,325	83,325
Namibia	160,000	269,400	260,100	296,200	227,700	275,700	256,700	233,000
South Africa	22,000	21,000	21,000	21,000	21,000	20,000	21,000	21,000
Tanzania, United Rep of	178,000	376,400	376,000	353,661	204,074	195,805	202,940	170,150
Zambia	58,868	73,809	76,930	85,731	90,047	95,520	61,113	70,000
Zimbabwe	233,260	258,110	272,100	270,000	240,000	245,000	153,500	153,500

Millet Production (Mt)	1990	1995	1996	1997	1998	1999	2000	2001
S Afr Development Commu	561,243	690,374	828,804	799,774	560,082	593,152	536,480	554,875
Angola	63,000	61,000	101,982	61,880	88,950	101,736	105,000	105,000
Botswana	1,650	990	8,100	2,000	1,204	1,300	1,000	1,000
Congo, Dem Republic of	34,239	38,690	46,612	31,670	32,525	33,403	34,305	35,231
Malawi	10,113	17,938	20,262	16,424	19,638	20,224	19,508	19,500
Mozambique	5,000	35,000	42,000	44,171	53,000	61,000	48,854	48,854
Namibia	58,000	37,100	56,600	107,500	34,629	47,500	77,000	65,000
South Africa	15,000	13,000	13,000	13,000	12,000	11,000	12,000	12,000
Tanzania, United Rep of	200,000	411,000	367,000	347,000	206,000	194,372	152,770	170,400
Zambia	31,531	54,501	54,858	61,129	62,236	69,617	43,153	55,000
Zimbabwe	142,710	21,155	118,390	115,000	49,900	53,000	42,890	42,890

Sorghum Area Harv (Ha)	1990	1995	1996	1997	1998	1999	2000	2001
S Afr Development Commu	1,496,521	1,843,062	2,075,272	1,785,616	1,524,991	1,527,555	1,553,438	1,733,001
Botswana	152,700	180,000	300,000	80,000	50,000	70,000	100,484	100,484
Congo, Dem Republic of	78,000	78,840	76,230	78,535	80,910	77,000	77,000	77,000
Lesotho	35,663	8,579	42,054	36,058	30,000	29,921	52,498	53,000
Malawi	30,814	73,523	76,029	83,859	67,938	59,310	55,030	55,000
Mozambique	404,435	430,276	437,000	452,436	480,000	326,351	252,026	504,087
Namibia	34,000	29,000	36,800	25,400	19,800	18,800	22,000	21,200
South Africa	196,000	180,000	174,120	161,000	131,277	98,900	142,200	90,300
Swaziland	887	1,989	1,400	1,062	1,000	1,000	1,000	1,000
Tanzania, United Rep of	380,000	689,500	690,000	622,582	488,102	659,868	638,700	618,200
Zambia	48,465	40,365	47,839	44,684	35,864	36,405	37,270	37,500
Zimbabwe	135,557	130,990	193,800	200,000	140,100	150,000	175,230	175,230

Sorghum Production (Mt)	1990	1995	1996	1997	1998	1999	2000	2001
S Afr Development Commu	1,143,014	1,575,827	2,028,053	1,477,629	1,496,724	1,364,244	1,671,490	1,519,448
Botswana	38,180	38,200	77,800	16,807	9,083	13,000	11,322	11,322
Congo, Dem Republic of	49,000	52,000	50,415	51,978	53,589	50,000	50,000	50,000
Lesotho	36,062	6,887	36,129	29,050	22,814	33,340	45,354	46,000
Malawi	15,452	44,754	54,710	39,514	41,473	41,401	36,799	38,000
Mozambique	175,060	243,000	249,000	262,491	318,000	326,350	252,461	313,787
Namibia	7,000	4,000	8,000	9,500	2,460	3,900	9,000	8,100
South Africa	341,000	290,557	535,839	433,371	358,469	223,530	471,644	185,610
Swaziland	996	1,428	1,000	708	647	600	600	600
Tanzania, United Rep of	368,000	839,000	872,000	498,481	593,000	561,030	664,200	735,700
Zambia	19,591	26,523	35,640	30,729	25,399	25,493	26,781	27,000
Zimbabwe	92,673	29,478	107,520	105,000	71,790	85,600	103,329	103,329

Buckwheat Area Harv (Ha)	1990	1995	1996	1997	1998	1999	2000	2001
S Afr Development Commu	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
South Africa	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

Buckwheat Production (Mt)	1990	1995	1996	1997	1998	1999	2000	2001
S Afr Development Commu	300	300	300	300	300	250	300	300

South Africa	300	300	300	300	300	250	300	300

LIVESTOCK PRODUCTION IN SADC

Cattle* *Stocks (Head)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	48,736,121	46,264,844	47,448,842	47,385,406	48,081,800	48,193,811	48,709,418	48,649,486
Angola	3,100,000	3,000,000	3,309,000	3,556,000	3,898,000	3,900,000	4,042,000	4,042,000
Botswana	2,696,100	2,530,000	2,249,000	2,270,000	2,250,000	2,300,000	2,350,000	2,400,000
Congo, Dem Republic of	1,534,700	1,113,140	1,060,272	852,812	822,355	852,812	822,355	792,986
Lesotho	523,244	580,230	539,000	601,410	495,614	510,000	520,000	510,000
Malawi	835,550	690,000	700,096	750,000	740,000	711,675	750,000	750,000
Mauritius	30,000	23,000	23,000	20,500	22,000	25,000	27,000	28,000
Mozambique	1,380,000	1,250,000	1,270,000	1,290,000	1,300,000	1,310,000	1,320,000	1,320,000
Namibia	2,086,551	2,031,350	1,989,947	2,055,416	2,192,359	2,278,570	2,504,930	2,100,000
Seychelles	2,200	1,800	1,400	1,300	1,400	1,400	1,400	1,500
South Africa	13,500,000	13,015,345	13,389,429	13,666,515	13,772,406	13,579,761	13,461,220	13,740,000
Swaziland	715,941	641,979	656,484	658,453	659,666	601,593	607,513	615,000
Tanzania, United Rep of	13,046,835	13,888,000	14,025,000	14,163,000	14,302,000	14,350,000	14,380,000	14,400,000
Zambia	2,878,000	3,000,000	2,800,000	2,100,000	2,176,000	2,273,000	2,373,000	2,400,000
Zimbabwe	6,407,000	4,500,000	5,436,214	5,400,000	5,450,000	5,500,000	5,550,000	5,550,000

Sheep* *Stocks (Head)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	43,370,990	38,701,668	38,522,785	39,034,641	38,638,758	38,219,112	38,505,786	38,570,093
Angola	240,000	240,000	260,000	280,000	305,000	336,000	350,000	350,000
Botswana	316,900	337,000	349,000	360,000	300,000	320,000	350,000	370,000
Congo, Dem Republic of	927,000	1,018,610	969,184	937,275	924,924	939,275	924,924	910,793
Lesotho	1,377,750	1,130,750	951,000	937,504	696,344	720,000	750,000	730,000
Malawi	147,600	100,000	100,750	110,000	105,000	103,095	105,000	110,000
Mauritius	7,000	7,000	7,000	7,000	7,100	7,100	7,000	7,300
Mozambique	121,000	119,000	120,000	122,000	123,000	124,000	125,000	125,000
Namibia	3,328,316	2,409,700	2,198,436	2,429,328	2,086,434	2,174,370	2,446,146	2,200,000
South Africa	32,665,008	28,784,326	28,933,524	29,186,534	29,344,956	28,680,272	28,550,716	28,800,000
Swaziland	24,431	24,282	26,500	25,000	27,000	20,000	27,000	32,000
Tanzania, United Rep of	3,556,985	3,970,000	4,000,000	4,050,000	4,100,000	4,150,000	4,200,000	4,250,000
Zambia	60,000	74,000	77,000	80,000	99,000	120,000	140,000	150,000
Zimbabwe	599,000	487,000	530,391	510,000	520,000	525,000	530,000	535,000

Goats* *Stocks (Head)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	29,465,323	32,194,404	32,603,969	32,794,736	33,111,426	33,145,670	33,968,904	33,744,354
Angola	1,500,000	1,460,000	1,590,000	1,720,000	1,861,000	2,000,000	2,150,000	2,150,000
Botswana	2,092,400	2,624,000	2,205,000	2,220,000	2,100,000	2,150,000	2,200,000	2,250,000
Congo, Dem Republic of	3,849,980	4,310,410	4,316,964	4,196,550	4,675,350	4,196,552	4,131,231	4,067,104
Lesotho	844,111	749,135	732,000	811,250	546,351	560,000	580,000	570,000
Malawi	836,510	1,100,000	1,257,340	1,260,000	1,250,000	1,427,134	1,450,000	1,450,000
Mauritius	95,000	91,000	90,000	91,000	92,000	93,000	94,000	95,000
Mozambique	385,000	382,000	384,000	386,000	388,000	390,000	392,000	392,000
Namibia	1,859,748	1,616,090	1,786,150	1,821,009	1,710,190	1,689,770	1,849,569	1,700,000
Seychelles	4,500	4,900	4,950	5,000	5,100	5,150	5,200	5,250
South Africa	6,100,000	6,456,789	6,674,103	6,643,927	6,558,435	6,457,064	6,706,104	6,550,000
Swaziland	298,166	435,080	438,000	440,000	435,000	438,000	421,800	445,000
Tanzania, United Rep of	8,525,908	9,700,000	9,750,000	9,800,000	9,850,000	9,900,000	9,950,000	10,000,000
Zambia	534,000	650,000	670,000	700,000	890,000	1,069,000	1,249,000	1,270,000
Zimbabwe	2,540,000	2,615,000	2,705,462	2,700,000	2,750,000	2,770,000	2,790,000	2,800,000

Pigs* *Stocks (Head)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	4,857,493	4,998,708	4,990,334	5,002,253	4,970,576	4,935,916	4,941,710	4,901,148
Angola	800,000	800,000	810,000	820,000	810,000	800,000	800,000	800,000
Botswana	16,200	1,000	3,000	5,000	2,000	5,000	6,000	7,000
Congo, Dem Republic of	1,050,000	1,084,140	1,117,483	1,100,090	1,048,720	1,100,086	1,048,716	999,748

Lesotho	66,516	65,935	63,700	57,875	60,000	63,000	65,000	60,000
Malawi	233,110	247,319	220,000	230,000	220,000	230,000	240,000	250,000
Mauritius	12,500	17,500	18,500	20,000	20,000	20,000	20,000	21,000
Mozambique	170,000	170,000	172,000	174,000	176,000	178,000	180,000	180,000
Namibia	17,865	19,979	18,923	16,884	14,706	18,731	23,148	18,000
Seychelles	17,500	17,900	17,500	18,000	18,100	18,200	18,300	18,400
South Africa	1,532,000	1,627,985	1,602,578	1,617,404	1,641,050	1,530,899	1,555,595	1,540,000
Swaziland	23,802	29,950	31,000	32,000	30,000	31,000	29,951	34,000
Tanzania, United Rep of	320,000	340,000	330,000	335,000	340,000	345,000	350,000	355,000
Zambia	295,000	300,000	320,000	316,000	320,000	324,000	330,000	340,000
Zimbabwe	303,000	277,000	265,650	260,000	270,000	272,000	275,000	278,000

Chickens Stocks (1000)	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
S Afr Development Commu	210,829	240,743	253,191	254,863	263,079	273,142	278,707	282,362
Angola	6,100	6,450	6,500	6,550	6,600	6,650	6,800	6,800
Botswana	2,126	3,157	1,355	2,000	2,500	3,000	3,500	4,000
Congo, Dem Republic of	27,490	22,931	24,976	22,303	21,559	22,302	21,559	20,552
Lesotho	1,000	1,500	1,600	1,700	1,600	1,700	1,800	1,700
Malawi	11,500	13,500	14,000	14,200	14,500	14,800	15,000	15,200
Mauritius	2,300	3,500	4,000	4,100	4,200	4,300	4,400	4,500
Mozambique	22,000	23,000	24,000	25,000	26,000	27,000	28,000	28,000
Namibia	1,700	2,200	2,300	2,400	2,300	2,250	2,300	2,350
Seychelles	300	530	480	620	520	540	550	560
South Africa	87,000	100,000	110,000	110,000	113,000	117,000	119,000	119,000
Swaziland	1,113	975	980	990	1,800	2,100	3,000	3,200
Tanzania, United Rep of	20,500	27,000	25,000	26,000	27,000	28,000	27,798	30,000
Zambia	15,700	21,000	23,000	25,000	27,000	28,000	29,000	30,000
Zimbabwe	12,000	15,000	15,000	14,000	14,500	15,500	16,000	16,500

SADC IMPORTS

Total Agriculture Imports 1990-2000							
Total Merchandise Trade							
Imports - Val (1000$)	1990	1995	1996	1997	1998	1999	2000
SADC	31636277	43075350	44508131	49578770	44218698	41123918	46298194
Angola	1578000	1700000	2053000	2332300	2120000	2120000	2120000
Botswana	1948400	1915900	1735890	2262970	2333680	2198090	2160000
Congo, DRC	897000	390000	417000	523000	388000	489000	489000
Lesotho	699812	1102540	1126860	1053210	876743	799203	720821
Malawi	578026	511498	641674	783710	573036	663630	544454
Mauritius	1609253	1993000	2289800	2258557	2437358	2185100	2098760
Mozambique	877500	784000	774000	754000	805000	1161000	1180000
Namibia	1164100	1425620	1552750	1641910	1507100	1503520	1602600
Seychelles	186830	232932	378257	340533	383251	433775	433775
South Africa	17076368	26837900	27035800	31242600	26786200	24079500	29695000
Swaziland	663368	1017580	1082460	1172950	1015120	1018750	925934
Tanzania,	1444000	1540800	1388560	1317310	1569860	1644500	1500000
Zambia	1066114	950000	1194480	820000	650000	650000	650000
Zimbabwe	1847506	2673580	2837600	3075720	2773350	2177850	2177850

SADC EXPORTS

Total Agriculture exports 1990-2000							
Total Merchandise Trade							
Exports - Val (1000$)	1990	1995	1996	1997	1998	1999	2000
SADC	37168908	43511690	46363639	44978835	42765437	41365239	44553501
Angola	3884000	3880000	4521000	4221900	2880000	2880000	2880000
Botswana	1787700	2144870	2233720	2822060	2072790	2658380	2677320
Congo, DRC	987000	461000	432000	450000	450000	450000	450000
Lesotho	59482	160236	190040	196164	202502	216122	212638
Malawi	416320	439790	513143	517481	680384	476593	445195

Mauritius	1172433	1584900	1791300	1651000	1962499	1655990	1481000
Mozambique	126426	169000	222000	226000	234000	268000	268000
Namibia	1085100	1419960	1461420	1363020	1217990	1373440	1464680
Seychelles	56683	53236	139378	113277	121465	145103	145103
South Africa	23579328	28331500	29496700	28221500	28497500	26713300	29983000
Swaziland	550353	868738	901368	961223	978337	896951	814805
Tanzania	406800	682920	763760	752550	588530	562700	663100
Zambia	1330872	1185900	1252670	941000	780000	929000	929000
Zimbabwe	1726411	2129640	2445140	2541660	2099440	2139660	2139660

Table 19 : Exports-Imports 1990-2000

Exports - Val (1000$)	1990	1995	1996	1997	1998	1999	2000
SADC	5532631	436340	1855508	-4599935	-1453261	241321	-1744693
Angola	2306000	2180000	2468000	1889600	760000	760000	760000
Botswana	-160700	228970	497830	559090	-260890	460290	517320
Congo, DRC	90000	71000	15000	-73000	62000	-39000	-39000
Lesotho	-640330	-942304	-936820	-857046	-674241	-583081	-508183
Malawi	-161706	-71708	-128531	-266229	107348	-187037	-99259
Mauritius	-436820	-408100	-498500	-607557	-474859	-529110	-617760
Mozambique	-751074	-615000	-552000	-528000	-571000	-893000	-912000
Namibia	-79000	-5660	-91330	-278890	-289110	-130080	-137920
Seychelles	-130147	-179696	-238879	-227256	-261786	-288672	-288672
South Africa	6502960	1493600	2460900	-3021100	1711300	2633800	288000
Swaziland	-113015	-148842	-181092	-211727	-36783	-121799	-111129
Tanzania	-1037200	-857880	-624800	-564760	-981330	-1081800	-836900
Zambia	264758	235900	58190	121000	130000	279000	279000
Zimbabwe	-121095	2023580	-392460	-534060	-673910	-38190	-38190

Table :Prevalence of HIV /AIDS and other Demographic Rates

Reference Year 2000	**Total Fertility Rate**	**HIV/AIDS Prevalence (% ages 15-**	**Population Growth Rate**	**Years to double**	**Current population size (millions)**
SADC	**4.58**	**14.89**	**1.83**	38	185.2374
Angola	6.62	2.72	2.87	24	13.1340
Botswana	4.03	34.31	0.87	80	1.6020
DRC	6.14	5.07	2.73	26	50.9480
Lesotho	4.39	26.4	1.32	53	2.0350
Madagascar	5.44	0.13	3.09	23	15.5000
Malawi	6.25	15.26	2.09	34	10.3000
Mauritius	2.02	0.04	0.099	700	1.1861
Mozambique	5.12	14.74	2.24	31	17.7000
Namibia	5	19.8	2.23	31	1.7570
Seychelles	2.09		1.49	47	0.8123
South Africa	2.88	24.82	1.64	43	42.8000
Swaziland	4.4		2.47	28	1.0450
Tanzania	5.3	8.06	2.23	31	3.3700
Zambia	5.27	17.77	2.08	34	10.4210
Zimbabwe	3.77	24.5	1.91	37	12.6270

Source: worldbank http://devdata.worldbank.org/data-query), calculations by IMPACT PROJECT

Notes : HIV/AIDs has high effect on both rural and urban labour force creating high dependence rations
Population of SADC will double in 38 years, unless proper reproductive health policies are adopted