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**ENHANCING AGRICULTURE AND FOOD SECURITY FOR
POVERTY REDUCTION IN THE SADC REGION**

Key Issues Paper for Extra Ordinary Summit

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REGIONAL PAPER

Extra-Ordinary Summit on Agriculture and Food Security

1. INTRODUCTION

The SADC region is endowed with a wide range of natural resources that must be utilised to ensure food security. It has a land mass of 906,324,000 hectares and of this, 25% (226,581,000 hectares) is arable with only 48,653,300 hectares under cultivation. Most of this land is suitable for the production of tropical crops for foods and exports and over 60% for livestock farming which can produce a rich and diverse products. The region has one of the highest potential for fish production with an exclusive economic zone (EEZ) of over 6 million square kilometres (sq km) a continental shelf of 503,646 sq km, and a considerable potential for aquaculture development. Its forests are not fully exploited and there are vast areas of natural habitats with large mammals, predators and a plethora of birds, and other biodiversity, which is an attraction for tourism. SADC indeed has a unique comparative advantage.

In spite of the massive resource endowments, the regional food security situation remains unstable. Average per caput dietary energy and protein supplies have decreased over the past fifteen years in the region and now stand at 2.160 Kcal (against a requirement of 2.700 Kcal) and 49g per person per day (against 68g), respectively. Food imports and food aid have almost doubled over the last fifteen years, a burden compounded by the weight of debt servicing in SADC Member States. Cereal demand is estimated to reach about 58.4 million tonnes in 2015, or more than double the current requirement of 28.4 million tonnes. The situation is aggravated by the high incidence of poverty estimated at 40 % of the region's population (i.e.76 million) living below the international poverty datum line of US\$1.0 per day and 70 % of the population living below the US\$2.0 per day. The HIV and AIDS pandemic has also created a big dent in the region's efforts to ensure food security through loss of agriculture labour force. Not least has been the repeated droughts and floods, which have left many people without food and in need of humanitarian assistance. The last food crisis in 2002/3 affected close to 15.2 million people in the region.

It is in the light of this that the Chairperson of SADC, H.E. President Benjamin William Mkapa, has called for an Extra-Ordinary Summit on Agriculture and Food Security to be held in Dar es Salaam, Tanzania on 15th May 2004. The Heads of States and Governments at their last Extra-Ordinary Summit on HIV and AIDS in Maseru, in June 2003, also called for an Extra-Ordinary Summit to address the food shortages in the region. The primary objective of this Summit will be to “adopt a proactive **plan of action** that would bring about accelerated development of agriculture to ensure food security and reduce poverty in the SADC region”. The Summit will be held under the theme of: *Enhancing Agriculture and Food Security for Poverty Reduction in the SADC Region*. It will build on and complement initiatives of the February 2004 African Union Extra-Ordinary Summit by focusing on SADC in recognition of its uniqueness in Africa.

2. GENERAL TRENDS IN FOOD PRODUCTION AND OTHER SOCIO-ECONOMIC CHARACTERISTICS

Agriculture is a major sector in the SADC region, contributing 35% to GDP and approximately 13 % of total export earnings. About 70% of its people depend on it for food, income and employment. For this reason, the performance of agriculture has a strong influence on food security, economic growth rate, and economic stability in the region.

Food security in this paper has been defined as “**sustainable access to safe and adequate food at all times and by all people for an active and healthy life**”. A review of the trends in cereal production since 1990 to 2003 is presented below. If this is taken as a proxy to food security, it will be noted from the table below that the region’s total cereal production has remained at the same level in 2003 and 1990 with an estimated amount of 22,753 and 22,062 metric tonnes respectively. In the same period, the region’s population increased from 152 million in 1990 to 212 million in 2003. Therefore, the region’s per capita food consumption has declined substantially.

Table 1: SADC Total Cereal Production by Crop

Year	Total Cereal Production by Crop				Total
	Maize	Wheat	Rice	Sorg/Millet	
1990	17348	2516	603	1595	22062
1991	15474	2154	491	1642	19761
1992	6783	2365	311	1247	10707
1993	17137	1778	523	2079	21517
1994	20074	2231	562	1838	24705
1995	11097	2490	603	2049	16239
1996	20345	3170	529	2776	26820
1997	17054	2763	533	2032	22382
1998	15835	2201	922	1905	20863
1999	17052	2032	633	1586	21303
2000	20501	2729	730	2124	26084
2001	15880	3053	745	1909	21587
2002	16323	2629	595	1999	21546
2003	18418	1888	767	1680	22753

Source: FANR Directorate 2004

Fig 1: SADC: Total Cereal Production and its 3- year Moving Average

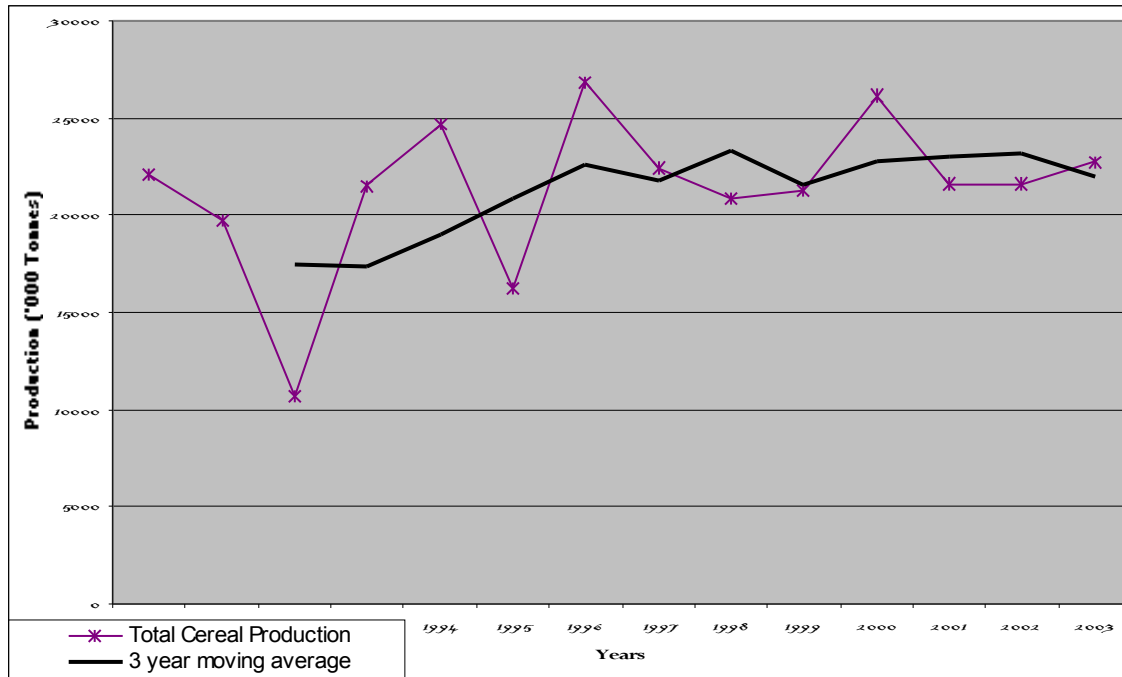
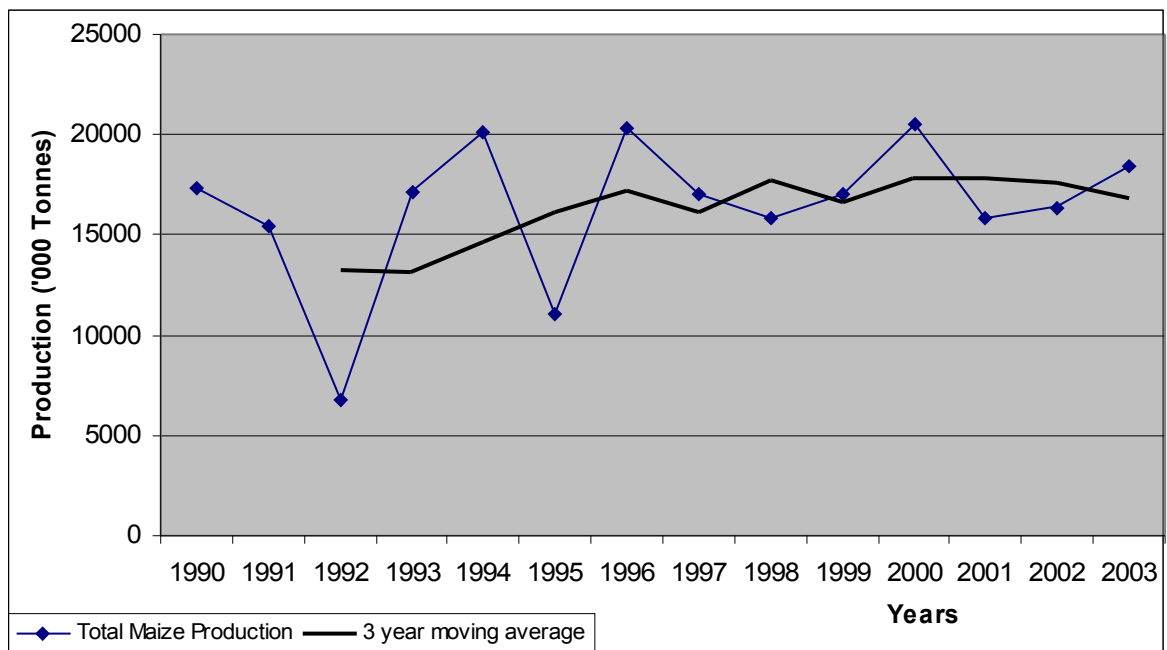


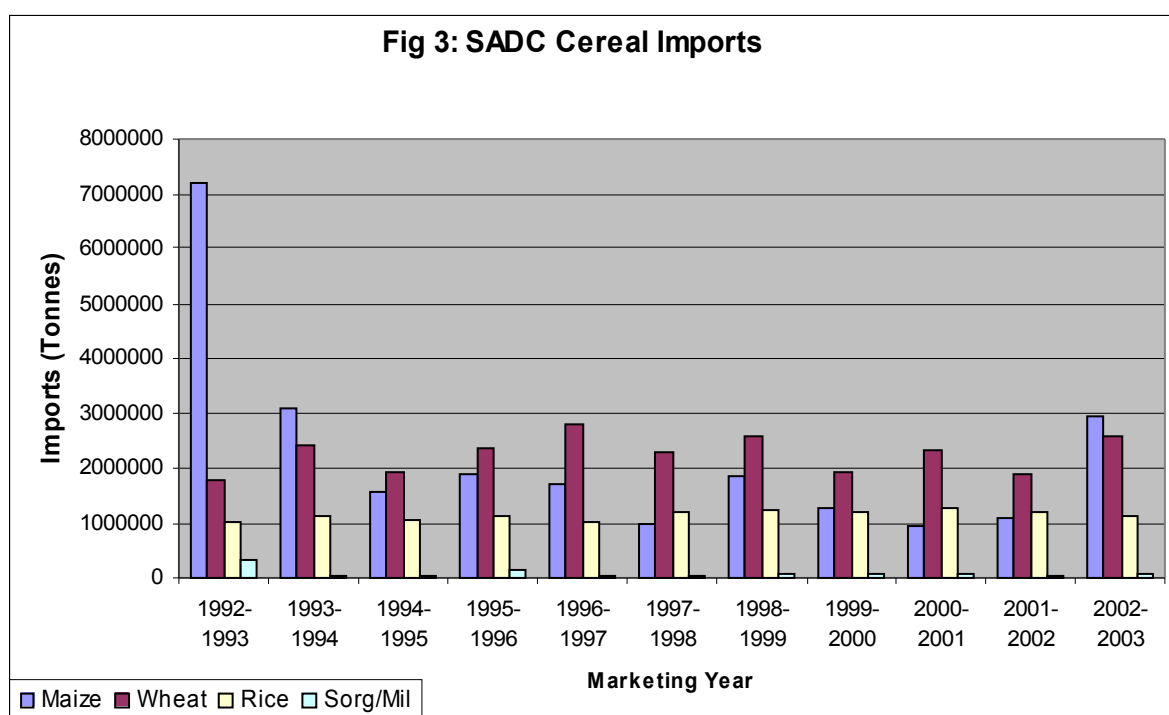
Fig 2: SADC Total Maize Production and its 3-year moving average



Source: FAO STATS

	COMMODITY				IMPORTS		% of food Aid
	Maize	Wheat	Rice	Sorg/Mil	Total	Food Aid*	
1992-1993	7191905	1770632	1031822	331487	10325846	3164337	31
1993-1994	3086727	2397250	1143310	48049	6675336	615734	9
1994-1995	1534224	1936572	1067563	47135	4585494	1073085	23
1995-1996	1894467	2374254	1116769	142198	5527688	846045	15
1996-1997	1684495	2783328	1023972	33977	5525772	409898	7
1997-1998	968369	2274415	1183283	33437	4459504	485283	11
1998-1999	1870810	2577796	1223136	76381	5748123	623776	11
1999-2000	1275847	1913484	1199890	81689	4470910	468119	10
2000-2001	939740	2332446	1279244	61192	4612622	561007	12
2001-2002	1091792	1884290	1193782	52599	4222463	750289	18
2002-2003	2947002	2579767	1188824	79919	6725512	1058797	16

Source: FAOSTAT Database (May 2004)



A review of some social indicators confirms that the nutritional status of the region has not improved over the years although at national level, the picture is mixed. Infant mortality rate at 80 per 1,000 live births compares unfavourably with Asean (45), EU (30) and North America (6) although this is better than the rest of Africa. The prevalence rates of HIV and AIDS estimated at 20% of the adult population have also had a devastating impact.

3. MAIN UNDERLYING CAUSES OF FOOD INSECURITY IN SADC REGION

The challenges facing SADC regarding agriculture and food security are many and have their basis in social, economic and environmental factors. The main causes of food insecurity in the region relate to insufficient investment in agriculture, poor access to agricultural inputs and markets, low technology development and dissemination, and insufficient preparedness to disasters. Critical challenges relate to increasing productivity, eliminating food deficits, and increasing trade in agricultural products in a sustainable manner. Overall the HIV and AIDS pandemic and the growing poverty in the region have exacerbated the situation. The humanitarian crisis of the past two years has exposed the region's vulnerability and the need to reshape policies at both the regional and national levels.

SADC also faces the challenge of resource mobilisation for agricultural development including the mobilization of private sector resources. While developed countries are forging ahead harnessing the application of modern technology to increase productivity in their agricultural sectors, agriculture in the SADC region remains under-funded, underdeveloped and its farmers poor. Moreover, insufficient rural infrastructure is constraining attempts to create markets for local produce or to take advantage of existing ones. SADC like the rest of Africa has not departed from production based on the traditional hand-hoe and heavy reliance on rain-fed agriculture. This situation must be reversed.

Insufficient utilisation of the abundant natural resources such as water, fisheries, forest and wildlife is one of the major factors retarding progress in agriculture and food security.

The old ideas of African countries exporting raw materials and semi-processed goods to non-African countries need to be discontinued. The region should strongly embrace new ideas that emphasize trading in higher-value products. This trade should first be seen among SADC countries and at continental level while also extending it to the rest of the world. The unbalanced structure of the region's trading patterns with the rest of the world will continue to create conditions of instability and insecurity for the continent unless concrete sustainable measures are taken to correct it. For instance, there was a trade imbalance between African oil-exporting countries in 2001 which imported agricultural goods from overseas valued at US\$ 11.6 billion compared to African oil-importing countries which imported oil from overseas valued at US\$ 6.3 billion instead of trading amongst themselves. Overall, inadequate macro economic policies in particular, exchange rate, interest rates, investment and overall trade policies have adversely affected agricultural production.

Regarding food aid, the region must ensure that food aid does not distort local markets and that it should be procured regionally.

It is for this reason that SADC Member States have identified “sustainable food security” as one of the priority intervention areas in its 15-year comprehensive long-term socio-economic development framework known as the *Regional Indicative Strategic Development Plan (RISDP)*.

4. CURRENT STRATEGIES AND RELATED INITIATIVES TO ENHANCE REGIONAL FOOD SECURITY

The Regional Indicative Strategy Development Plan (RISDP) was developed to deepen the integration agenda of SADC with a view to accelerating poverty eradication and the attainment of other economic and non-economic development goals. It takes into account the SADC vision of a common shared future within a regional community and its mission to promote sustainable and equitable economic growth and socio-economic development. The RISDP takes stock of the current political, social and economic situation in the region in order to provide a way forward for SADC to attain its objectives. The document embraces the Millenium Development Goals (MDGs), and New Partnership for African Development (NEPAD) as a credible and relevant continental framework.

SADC Member States have identified intervention areas to meet the overarching objectives and priorities, which are outlined in the RISDP. The intervention areas represent those of a cross-sectoral nature and those related to specific areas of cooperation and integration based on criteria that includes contribution to poverty reduction and eradication; development integration; balanced and equitable development; integration into the continental and global economy; sustainable development and gender equality.

Recognising the strategic importance of agriculture and food security in economic development in the region, SADC Member selected “sustainable food security” as one of the intervention areas in the RISDP focussing on the following areas:

- i) Improving food availability: Member States are required to promote agricultural production and productivity, take measures that increase competitiveness and promote trade and are also urged to promote the sustainable use of natural resources.
- ii) Improving access to food through rural non-farm income generation: Member States are encouraged to adopt policies, which will generate the maximum employment gains and incomes, introduce measures that improve income stability and equity, and develop safety nets (such as food for work, cash for work and targeted distribution of inputs or food) for vulnerable groups. Most of these measures require public, private and NGO partnerships.
- iii) Improving nutrition: Member States are urged to adopt strategies that improve the nutritional value of food, minimize food losses, particularly for the resource poor, and address food safety.

- iv) Enhancing disaster preparedness: the objective is to improve forecasting, prevention, mitigation and recovery from adverse effects of natural disasters.
- v) Enhancing the institutional framework: the objective is to strengthen the institutional framework of the relevant institutions and expertise, as well as build capacity for implementing food security programmes in the SADC region.

Many donors, international organisations and development banks are currently having in place programmes related to agriculture and food security. For example, the FAO through its Regional Programme for Food Security (RPFS, 2002) aims to increase food security in Member States through enhanced human and capital development, market integration, institutional strengthening, and the design of special programmes to facilitate intensified agricultural production, processing and intra-regional trade. The RPFS also supports and strengthens the implementation of the World Food Summit Plan of Action on Food Security through a series of regional interventions designed to contribute and improve, on a sustainable basis, access of all the people of the SADC region at all times to adequate food required for a healthy and active life through increases in productivity, production and trade of food and agricultural commodities. The European Union (EU) has recently signed two Financing Agreements with SADC on the Promotion of Regional Integration in Livestock Sector (January 2004) and the Implementation and Coordination of Agriculture Research and Training (December 2003) which will support the agriculture sector in the region.

At the continental level, the AU through the New Partnership for African Development (NEPAD), and in particular, the Comprehensive Africa Agriculture Development Programme (CAADP), provides a holistic and multidimensional development framework undertaken by African Leaders, which encompasses economic, political, security social and cultural dimensions of development. The African Economic Integration framework under the Abuja Treaty, stipulates that the Regional Economic Communities such as SADC are expected to act as building blocks in the implementation of the African Agenda under the frameworks of the AU and NEPAD.

At the global level there are many initiatives, which pose as challenges to SADC but also create opportunities. These include the process and effects of globalisation, which encompasses, among others, financial, trade and technological forces. The agenda of the World Trade Organization (WTO), the Cotonou Agreement between the EU and ACPs as well as the USA's African Growth and Opportunity Act (AGOA) are all key challenges and opportunities for SADC. A global development agenda of crucial importance for SADC is currently being championed by the United Nations (UN) and is expressed in the Millennium Declaration and other United Nations led International Conventions through the Millennium Development Goals. SADC need to align its agenda with such initiatives.

5. KEY ISSUES FOR CONSIDERATION AT THE SUMMIT

The following issues have been identified as priorities that must be addressed in the short or medium term in the SADC region in line with the SADC RISDP.

- a) Sustainable agricultural financing and investment;
- b) Enhancing food production, productivity and the overall availability:
 - i) Crop and livestock production;
 - ii) Provision and promotion of efficient use of water in agriculture with emphasis on irrigation in the region;
 - iii) Access to agricultural productive land and key agricultural inputs;
 - iv) Sustainable utilisation of natural resources;
 - v) Strengthening research-extension-farmer linkages and other support services and
 - vi) Gender equality.
- c) Enhancing Access to safe food:
 - i) Promotion of agro-industrial development in order to boost incomes;
 - ii) Improved market access, market integration and trade;
- d) Strengthening disaster preparedness:
 - i) Establishment of a Regional Food Reserve Facility, strengthened early warning systems and vulnerability monitoring capabilities;
- e) Mitigating impacts of HIV and AIDS on agriculture and food security

A brief highlight of each of the above issues and main recommendations to address the problems is provided below:

5.1 SUSTAINABLE AGRICULTURAL FINANCING AND INVESTMENT

- 5.1.1 A considerable level of investment in the agricultural sector is required in order to achieve the objectives of food security and economic growth. Despite the importance of agriculture, empirical evidence shows that investing in the upper half of small to medium-scale households involved full-time in farming, has great multiplying effects on income generation, employment and growth. However, financing inflows to agriculture from both public and private sources have experienced a decline over time and are currently overtaken by food aid. This trend can be related essentially to a lack of comparative attractiveness of agriculture within a competing international environment, an unreliable business

environment and a history of unsustainable agricultural programmes. Hence, while this issue is about financing services, it requires that investment considerations at various levels be addressed too.

- 5.1.2 At global level, aid to agriculture in Developing Countries started to decline in the mid 80's followed by a decline to Africa in the 90's. Overall, Aid to Agriculture in Developing Countries declined from 20% in 1980/84 to 8% in 1996-2000. Similarly, aid to agriculture in Sub-Saharan Africa (SSA) declined from 20% to 8% for the same period. Multilateral aid declined most rapidly from 27% to 7% while bilateral aid declined from 15% to 8% of total aid. Details are shown in the table below:

Table 1: Aid to Agriculture in SSA by Donor and Share of Total

ICP	1980-1984 % Donor Total	1996-2000 % Donor Total	2001 US\$ Million
Af DF	22	14	171
EC (EDF)	28	3	62
IDA	23	5	183
IFAD	69	70	95
Total Multilateral	27	7	511
Bilateral	15	8	542
Overall Total	20	8	1,053

Source: Carla Eicher, Paper No 16 presented at Inwent, IFPRI, NEPAD and CTA Conference, Dec. 2003.

Worse still, food aid has overtaken the assistance to agriculture. According to OECD, only 4.7% of development assistance provided by its members went to agriculture in 2002 while 4.8% was for food aid. In the case of EU, these proportions were 5.5% and 7.3% respectively.

- 5.1.3 There have been a number of appeals to increase financing flows to agriculture at various foras, including under SADC RISDP. Among these, NEPAD requires a mention as it provides a framework to address globally the factors of investment in Sub-Saharan African countries. As mentioned, this complex issue will also closely depend on progress made by SADC on initiatives such as the Protocol on Trade and related harmonization of regulations related to trade and private sector investment and the finance sector within the region, as well as Peace and Security.
- 5.1.4 At farm and rural community level, credit is the key for short and medium term financing, particularly for small-scale farmers. Access to credit remain a problem to vulnerable groups such as women, child –headed households and orphans who lack collateral. Member countries should actively mobilize the various partners concerned in order to develop and implement rural specific credit system strategies. The priority should be put on:

- i) guaranteeing a disciplined, business-oriented environment for credit services;
- ii) systematic promotion of micro-credit and equivalent systems in rural areas (e.g., skills development, cost reduction strategies, linkages with the bank sector) as well as contract farming;
- iii) improving economic appraisal of investment at farm/community level (e.g., advisory mechanisms and training of credit institutions in farming projects);
- iv) monitoring mechanisms regarding rural credit system development at national level.
- v) For many long term investments, a combination of grant and lease terms should be preferred to loans.

Rural development funds should be increased and their scope broadened to include more business-oriented investments, while their management should involve permanent rural finance institutions. However, farmers' decision to invest will eventually be determined by anticipated returns in particular with respect to the reliability of their environment. Hence, efforts to address economic and institutional impediments should be specified within the proposed strategies, as this may determine their effectiveness. Finally, regarding the overall rural finance sector, there is need to monitor the progress made in the region.

- 5.1.5 Regarding the private sector, Member States should actively mobilize the representatives of the private business sector in order to review and devise plans to increase private sector investment and financing inflows into agriculture. Indeed, the contribution of the private business sector would need to increase significantly if the level of investment required for sustainable agricultural development is to be reached. This requires above all a conducive business environment (governance, economic stabilization, regulations, contract enforcement, visibility of public sector's intervention etc.). Poor terms of trade have also negatively affected private sector investment in agriculture. It may also require that a set of business driven financing and technical assistance instruments be improved/ developed. Innovative financing instruments that combine private and public resources (e.g., for market and irrigation infrastructures) should as well be explored. Regarding links with small-scale farming, specific measures may be needed to attract agri-business investment (e.g., contract farming, producer organisations, brokerage services). Besides, Member States which have low domestic saving and investment capacity should put in place strategies to attract Foreign Direct Investment (FDI). In addition, SADC should design a process to provide a level playing field and harmonize investment promotion policies of its Member States .

Financing of a number of critical agricultural development services (e.g., extension, training, business advice) should not be expected to be addressed through market mechanisms exclusively. Considering the un-sustainability of donor and budget funding, governments should incite partners of the sector to appraise and negotiate alternative financing mechanisms.

5.1.6 Decline in public sector financial flows to agriculture in Member States must be addressed within the context of limited budget capacity, increased budget requirements for other sectors, anticipation regarding private sector's increasing role as well as other departments' reservations regarding the cost-effectiveness of investing public money into agriculture. Member States should therefore direct priority efforts at improving the rationale for increased public support to agriculture and developing mechanisms to attract complementary sources of financing, in particular from the private sector. In that context, attention should be given to the identification of potential policy instruments (e.g., import duty policy, food aid) that may hamper farmers' competitiveness. In addition, public financing should focus on the forms of investment that have highest multiplying effects on the economy, e.g., rural infrastructures, training systems, institutional development, research and risk mitigation (food shortages). SADC has invested a lot in developing transport corridors such as Beira, Maputo and Trans Kalahari high way but little attention has been given to agriculture investments along such corridors to fully exploit their potential. Following the Maputo Declaration to increase budgetary allocation to 10 % for agriculture and rural development, the region needs to put in place monitoring mechanisms since the budgetary allocations to agriculture are still very low.

Policy Recommendations

- Governments should increase the budgetary allocation for agriculture in line with the Maputo Declaration on July 2003. Where relevant, Member States should, in consultation with their development partners and stakeholders, review/develop policies and strategies to tackle the individual issues described above. A programme should be developed by SADC Secretariat to support countries wishing to undertake such analyses and consultations.
- SADC Member States should identify, analyse and formulate measures that would increase significantly private sector investments in agriculture.
- As most financial issues are being dealt under the umbrella of the NEPAD framework, SADC Secretariat should interact with NEPAD in order to streamline the planning and programming of related initiatives.
- Financial institutions for agriculture need to be expanded and special windows opened for small to medium enterprises as agriculture is seen as a very risky business by the banking and finance institutions...
- SADC FANR Directorate and the Ministries responsible for agriculture and natural resources should continue to interact with relevant institutions in charge of trade, finance and investment, in order to review progress made in improving the business environment, investment and banking sector regulations with respect to the agricultural sector and rural finance.
- International Cooperating Partners (ICPs) should double the current level of official development aid to agriculture, consistency with the commitments taken at international conference on financing for development in Monterrey, Mexico and the World Food Summit in Rome.

5.2 ENHANCING FOOD PRODUCTION /AVAILABILITY

5.2.1 CROP AND LIVESTOCK PRODUCTION

5.2.1.1 Crops

Crop production accounts for approximately 60% of the agricultural output. A wide variety of crops are grown in the region with maize being the principal food crop, especially in the southern part of the region. Tubers, mainly cassava, and bananas are mostly grown in the northern part of the region. Maize is the most extensively traded food crop within the region. Major export crops for the world market are sugar, cotton, tobacco, coffee, tea, cashew nuts, fruits, and horticultural products.

There is potential for increasing crop production in the SADC region through intensification; use of improved seed, fertilizer, improved soil fertility management, irrigation, mechanisation and other technologies. However, the region's current output is limited by its susceptibility to droughts, floods, poor input availability soil erosion and nutrient depletion, plant pests, inadequacy of irrigation and transport infrastructure, weak extension structures and poor market accessibility. A high percentage of the farmers live far away from markets. Furthermore, women, although they play an important role in agriculture as producers, are handicapped by inadequate access to and control of resources especially land, credit and other capital. Finally, the HIV/AIDS pandemic which has depleted the available labour in rural areas, is having a considerable negative impact on agricultural activities.

During the 2002/2003 marketing season the region was faced with a "humanitarian crisis" arising from severe food shortages. By March 2003, 15.2 million people required food aid amounting to about 2 million tonnes. Although the situation for the 2003/2004-marketing year improved, by March 2004 still about 7 million people in Zimbabwe, Tanzania, Lesotho, Namibia, and Swaziland, needed food aid to survive. The improvements have been due to improved rainfall received and commendable measures taken by Member States to boost food production including the following.

- Sensitisation of the public on the importance of agriculture;
- The provision of subsidized inputs (seed, fertilizer) to vulnerable groups;
- Cost sharing by government and farmers;
- Initiation of public-private partnerships;
- Commodity cross substitution;
- Winter cropping; and,
- Cross border trade.

The heavy reliance of the region on maize is part of the food insecurity problem, and crop diversification is now promoted as an element of improved risk management. The DRC, Tanzania, Mozambique, Zambia, Angola and Malawi are cassava growing countries in the region and together they produce annually an estimated 30 million tonnes of fresh cassava, which is about the nutritional equivalent of 12.5 million tonnes of maize. In the light of

the importance of cassava to food security in these Member States, it is included in the food balance sheet (cereal balance in table below). Other important tubers produced in the region are potatoes (2.3 million tonnes) and sweet potatoes (1.0 million tonnes).

SADC

ALL CEREALS BALANCE SHEET

MARKETING YEAR (Vary by Countr 2003/2004

Thousands of Metric Tons

	Ang	Bot	Les	Mal	Mau	Moz	Nam	RSA	Swa	Tan	Zam	Zim	SADC
<u>A. Domestic Availability</u>	<u>713</u>	<u>76</u>	<u>127</u>	<u>2392</u>	<u>6</u>	<u>1860</u>	<u>149</u>	<u>14290</u>	<u>69</u>	<u>4173</u>	<u>1509</u>	<u>1251</u>	<u>26616</u>
A.1 Opening Stocks	0	44	34	280	4	125	48	2816	7	336	103	66	3863
Formal/SGR	0	40	34	280	4	79	48	2816	7	53	102	62	3525
On Farm	0	0	0	0	0	46	0	0	0	169	1	0	216
Other	0	5	0	0	0	0	0	0	0	113	0	4	122
A.2 Gross Harvest	713	32	94	2112	2	1735	101	11474	63	3837	1406	1185	22753
B. Gross Domestic Requirements	1262	311	395	2418	199	2358	257	11219	204	5096	1346	2272	27338
C. Desired SGR Carryover Stocks	50	47	0	100	10	0	31	1537	11	150	56	250	2241
<u>D. Domestic Shortfall/Surplus</u>	<u>-600</u>	<u>-281</u>	<u>-267</u>	<u>-126</u>	<u>-203</u>	<u>-498</u>	<u>-140</u>	<u>1534</u>	<u>-145</u>	<u>-1073</u>	<u>107</u>	<u>-1271</u>	<u>-2963</u>
E. Commodity Cross Substitution	0	0	0	88	0	0	0	0	0	809	0	0	897
<u>F. Imports</u>	<u>0</u>	<u>333</u>	<u>232</u>	<u>27</u>	<u>203</u>	<u>686</u>	<u>104</u>	<u>1242</u>	<u>93</u>	<u>581</u>	<u>9</u>	<u>573</u>	<u>4082</u>
F.1 Received	0	182	155	6	0	22	20	282	64	0	0	167	898
Commercial	0	182	146	0	0	5	20	282	57	0	0	79	771
Food Aid	0	0	9	6	0	17	0	0	7	0	0	88	127
F.2 Expected	0	151	77	21	203	664	85	960	29	581	9	406	3184
Commercial	0	151	53	0	203	558	85	960	29	581	9	346	2974
Food Aid	0	0	24	21	0	106	0	0	0	0	0	60	210
<u>G. Exports</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>46</u>	<u>0</u>	<u>70</u>	<u>1</u>	<u>1497</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1617</u>
Committments Shipped	0	0	0	46	0	0	1	1245	0	0	0	0	1292
Committments Not Yet S	0	0	0	0	0	70	0	252	3	0	0	0	325
<u>H. Import Gap</u>	<u>-600</u>	<u>0</u>	<u>-36</u>	<u>-57</u>	<u>0</u>	<u>0</u>	<u>-36</u>	<u>0</u>	<u>-54</u>	<u>0</u>	<u>0</u>	<u>-699</u>	<u>0</u>
<u>I. Forecasted Closing Stock</u>	<u>0</u>	<u>98</u>	<u>0</u>	<u>43</u>	<u>10</u>	<u>118</u>	<u>0</u>	<u>2816</u>	<u>0</u>	<u>467</u>	<u>172</u>	<u>0</u>	<u>2640</u>
J. Current Stock	0	50	110	0	0	0	30	6580	6	172	87	0	7035

Source: SADC, FANR Directorate, March 2004

Besides the droughts and the above mentioned policy factors, other main factors that recently affected Crop Production include:

- i) Access and distribution of Inputs such as seeds, and fertilizers,

- ii) Prices; the region experienced a price instability for the major staple maize
- iii) Pests especially migrant pests such as locusts, armyworm and quelea birds.
- iv) Financial and technical barriers to trade: The negative impact of OECD subsidies on SADC agriculture have already been discussed at length. In their shadow stand a set of technical barriers that constrain SADC agricultural exports probably as much if not more. The barriers to international trade that came into focus during the period under review are the Maximum Residue Levels (MRLs) for pesticides in agricultural products. While new MRLs will be imposed on SADC, the region lacks the capacity to manage, or even just measure these parameters. Issues on SPS (Sanitary and Phytosanitary) and TBT (Technical Barriers to Trade) are major constraints to export and development, and need special attention.
- v) The high prevalence of HIV/AIDS across the SADC region has affected crop production.

As way forward, the region needs to invest in the strengthening of its networks, taking into account issues of sustainability and capacity building. Other recommendations stem from the SADC- RISDP, which calls for increased use of fertilizer and manure and the promotion of locally produced quality seed.

5.2.1.2 Livestock

Animal Production has a great potential to contribute to food security and poverty reduction. However, in many SADC countries animal production is still highly dependent on traditional subsistence systems that are very vulnerable to meteorological conditions and diseases. Genetic erosion is another main issue: resistant and well adapted African farm animal breeds are often pushed from the scene by seemingly higher productive exotic breeds, a short term trend that creates pressures and loss of precious natural resources that are needed for long term agricultural development

Animal diseases are not only killing animals with devastating impacts on owners livelihoods, but they also reduce the quality of products of animal origin, hence creating a potential danger for the consumer and in some cases excluding countries from regional or international trade. Some animal diseases (i.e. Foot and Mouth Disease, CBPP) need complex, multi-national interventions to be effectively controlled, involving coordinated vaccination programmes plus culling of infected and suspected animals. Foot and Mouth Disease (FMD) has become a threat to the region and must be stopped by all means. The spread of CBPP (a deteriorating lung disorder) in Tanzania, Angola and Zambia has to be contained with the help of the international community in order to prevent production losses in the region. Efficient disease control policies require the collaboration between governments and

the private sector including independent farmers associations capable of managing public funds. However, these are still in their early stages in most SADC countries.

In the context of the current re-structuring of SADC, under the Food Agriculture and Natural Resources Directorate (FANR), SADC Secretariat is entrusted to promote regional integration and sustainable livestock production through the co-ordination of animal disease control policies and strategies, human resources development, and improved livestock products utilisation. SADC Secretariat has just signed an Agreement with the EU under 9th EDF to fund a project by the title Promotion of Regional Integration in the SADC Livestock Sector (PRINT) which will address some of the challenges of livestock development in the region especially capacity building.

Another regional initiative is the Farm Animal Genetic Resources project aimed at strengthening the institutional capacity of the SADC Member States to put in place regional and national structures, which will enable proper conservation, management and utilisation of farm animal genetic resources, to improve the living standards of the people of the SADC region and meet food security objectives.

Most of the approaches and methods to enhance livestock productivity, reduce the impact of diseases and assure protection of consumers are well known and readily available through SADC, OIE, FAO, and WHO, but implementation by our Member States lags behind. The curricula of Agriculture and Veterinary Schools in the region lack harmonisation. In some countries there is the need to move to higher standards in order to face the challenges of future changes in livestock production, animal health methods, international animal trade and consumer protection needs.

Policy Recommendations (Crop and Livestock)

Major recommendations for regional action are as follows:-

- (a) Accelerate the move towards an African common agricultural market and promote the geographical specialization of crop and livestock production based on comparative advantages and rural diversification. Development corridors should be exploited to their potential;
- (b) Enhance efforts to reverse the menace of further spread of communicable diseases within and outside the SADC region. Eradication strategies must be introduced for all relevant plant and animal diseases in collaboration with OIE, FAO and WHO in the framework of the WTO SPS agreement;
- (c) Enhance capacity building through harmonization of curricula for crop and livestock in Agriculture Universities to meet current and future challenges;

- (d) (Note SDK: is this a priority for Summit?)
- (e) Promote trade in crops and livestock through harmonisation of SPS/TBT standards and;
- (f) Enhance information sharing among Member States through networking; and
- (h) Invoke targeted support to vulnerable groups compatible with WTO Agreement on Agriculture (measures contained in the De Minimis, and Green Box e.t.c.).

5.2.2 WATER RESOURCES DEVELOPMENT AND MANAGEMENT FOR PROMOTING IRRIGATED AGRICULTURE

5.2.2.1 Food production has been severely affected by droughts in various parts of the region particularly over the last two decades. Threats to food production are also a result of highly seasonal and erratic rainfall patterns, leading to variable flows in rivers, floods, droughts etc. The *Climate Change* phenomenon has exacerbated this problem, whereby normal scenarios are no longer prevalent. The region is therefore constantly subjected to either floods or droughts even within the same year. It is predicted that the *Climate Change* phenomenon will continue to deteriorate in the coming years (half a century) due to the inherent momentum of ozone depletion. Adverse weather patterns result in reduced planting and crop failure thus promoting food shortages and undermining access to food for large sections of the population, with the resultant heavy human and economic losses.

The region exhibits an overdependence on rain-fed agriculture, hence the negative impacts of weather changes indicated above, and a concentration on low-value crop production. The inadequacy of water control and the lack of infrastructure constitute limiting factors for productivity and competitiveness of its farmers hence the region's failure to make full use of its water resources. The way forward in promoting sustainable food production would therefore appear to lie with:

- sound management of water sources/water-courses,
 - promotion of appropriate irrigation technologies, and
 - efficient use of limited and sparsely distributed water resources.

5.2.2.1 Water Resources Development

It is imperative that the SADC region acts promptly to address the above-mentioned threats by embarking on an integrated and pragmatic programme of developing water storage infrastructure and efficient and effective management of the scarce resource, water. This regional strategic infrastructure development would not only provide water security for food security, but would also be used for other competing demands, including power generation, environment, flood mitigation, domestic water supply and sanitation, etc. These sectors are crucial for the region to meet the MDGs and other industrial activities for economic development and integration. The

costs of such a programme is high, estimated at US\$ 0.2 billion per country per year (FAO, March 2004), and to be mainly sourced locally and nationally. Mobilising local labour for these infrastructural works will save costs and at the same time create off-farm income.

The initiative will inevitably call for closer cooperation between Watercourse States in undertaking joint water resources infrastructure projects to particularly address the challenges of food security. The SADC Region should re-affirm itself to its commitment to peace and stability through cooperation in shared watercourses as enshrined in the *Revised Protocol on Shared Watercourses*. Due to comparative advantages in various areas in the region, it calls for Watercourse States to shift from the concept of sharing the actual water to the concept of sharing the benefits and the risks in a shared watercourse. It is encouraging to note that considerable progress has been made in the implementation of this Protocol, especially in the establishment of River Basin Organisations (RBOs) and in undertaking joint strategic water resources development projects in various shared watercourses.

The strengthening of the RBOs should play a pivotal role in the acceleration of the water-based strategic infrastructure. Also, a major step towards harmonisation of national policies in the region is the draft Regional Water Policy. It calls for the harmonisation of all Member States' National Water Policies. In order to avoid policy hindrances, the aim is to establish a regional water policy in countries with shared watercourses. It still remains a challenge to establish more River Basin Organisations in those remaining shared watercourses in the region in order to meet the 2010 target as specified in the RISDP.

5.2.2.2 Irrigation Agriculture and Irrigation Technologies

Notwithstanding the competing and conflicting uses of water in the region, irrigated agriculture is still inadequate when considering its potential given available water and land resources. FAO estimates that Africa uses about 5% of its total water resources for domestic and industrial use compared to 20% in Asia. For Sub-Sahara Africa the situation is worse. The available water in the region must be used to support sustainable food security through sustainable irrigated agriculture. It is estimated that yields from irrigated agriculture are three times higher than yields from rain fed agriculture and yet only 4.5% of agricultural land is under irrigation. Irrigated agriculture should be promoted in all areas where it is viable. In the fight against food shortages, the initiatives should be at all levels that is regionally, nationally and at local levels where small dams, mini and micro-scale irrigation projects should be promoted to contribute to poverty alleviation and food security. Expansion of irrigation will require the following:

- establishment of the potential for irrigation in each country,
- development of national master plans on irrigation development,
- the higher prioritisation of irrigation within the agricultural sector to be reflected in country budgets,
- establishment of mechanisms for up-scaling the use of irrigation methods,

- institutional capacity; and
- promotion of water harvesting technologies.

5.2.2.3 Water Use Efficiency

Irrigated agriculture accounts for about 70% of the total water demand in the region. This implies that more efficient water use in this area is necessary to make more water available for expansion of irrigation systems as well as to safeguard water for other uses (domestic, industrial). To ensure that maximum benefit is attained for a given quantity of water, irrigation systems should employ appropriate, affordable and sustainable water-use efficient technologies. Many irrigation systems in SADC are inefficient, resulting in very high water losses, averaging 40-60%. Such high water losses are unsustainable, potentially depriving other users of scarce water resources. Irrigation schemes should aim for higher water use efficiencies, so as to enhance conservation, to free water resources for other productive sectors to increase the profitability of the scheme. Unless appropriate water demand management instruments are adopted and integrated in the planning and development of all water resources and irrigation undertakings in the region, conflicts are likely to develop across the region over the sharing of the resource.

Policy Recommendations

Some of the recommendations made below have been the subject of workshop deliberations such as the African Union Regional Workshop on Irrigation Farming for Small and Medium Scale Farmers held in November 2003 in Lilongwe, Malawi. The challenge is now to infuse the recommendations into the policy arena.

- a) Member States should aggressively embark on water storage infrastructure programmes, and water harvesting /storage technologies to avail more water for food security and poverty alleviation. At least 25% of the agricultural budget should be allocated for water management and irrigation;
- b) Member States should develop strategies to double crop land under irrigation from the current average of 4.7 % (see table 3) to 7 % of total cultivated land;
- c) The region should enhance human resource development and capacity building that would include training of farmers and professionals in irrigation management;
- d) The Secretariat should expedite finalisation, and funding of the regional program on irrigation development and water management; and
- e) Establish and strengthen shared watercourse institutions to enhance cooperation, development and management of water resources in line with the protocol on share water.

5.2.3 ACCESS TO LAND AND KEY AGRICULTURAL INPUTS

5.2.3.1 Access to land

As most Member States have agricultural based economies, access to land is an important factor for production. It is perhaps the most overriding factor for attainment of sustainable food security at national and household levels especially when other services and infrastructure are available to enhance production. The SADC Region with a surface area of approximately 9.3 million square kilometres of which only 0.2 million square kilometres is covered by inland waters, only uses about 1.5 million square kilometres for arable farming.

Table 3: Total Land in SADC Region (KM²)

Country	Land Area	Inland Water	Crop Land	% under crops	Irrigated Area	% cropland irrigated
Angola	1246700	0	35032	2.81	750	2.14
Botswana	566730	15000	3463	0.61	10	0.29
DRC	2267050	77810	78893	3.48	110	0.14
Lesotho	30350	0	3250	10.71	10	0.31
Malawi	94080	24400	20001	21.26	280	1.40
Mauritius	2030	10	1060	52.22	NA	NA
Mozambique	780490	21100	31064	3.98	1070	3.44
Namibia	823290	1000	8151	0.99	70	0.86
Seychelles	450	0	70	15.55	NA	NA
South Africa	1221040	0	157514	12.9	14980	9.51
Swaziland	17200	160	1801	10.47	700	38.87
Tanzania	883590	61500	46477	5.26	1600	3.44
Zambia	743390	9220	52855	7.11	460	0.87
Zimbabwe	3868500	3910	33811	8.74	1170	3.46
SADC TOTAL	9063240	214110	473442	5.22	21210	4.48

Source: FAOSTAT, 2002 and SADC

While availability of good quality land suitable for farming differs from country to country due to terrain and climatic variations, access to land by the majority of the people in the region is characterized by historical and cultural consequences of unequal patterns of land ownership. Gender inequalities in access to land are common. Many women are largely discriminated against in land ownership, despite the fact they are responsible for 80% of agricultural production in the sub region. Both customary and statutory land tenure systems limit their full ownership and control of land. Large proportion of this land can not be brought into production due to lack of infrastructure, prevalence of diseases, presence of land mines and other factors.

In some Member States one of the fundamental causes of continuing hunger is the relentless pressure of population increases on a limited land base. This has led to the fragmentation of land holdings, landlessness, encroachment of environmentally fragile areas and unfavourable land use practices, resulting in land degradation. This situation is exacerbated by lack of investment in

land, water conservation and other production improving technologies such as fertilizers, improved seeds and other agrochemicals.

Land reform is on the agenda of SADC. Several meetings of Ministers and Senior Officials responsible for agriculture and lands have resulted in a proposal, approved by SADC Council of Ministers. The proposal aims to establish a Regional Land Reform Technical Support Facility under the Food, Agriculture and Natural Resources Directorate. This facility will among other things do the following:

- a) provide technical support to Member States implementing land and agrarian reforms;
- b) mobilise financing and technical services of regional and international experts (consultants) that will provide expert services and advice Member States implementing land and agrarian reforms;
- c) finance the establishment of a regional land information resource including a website;
- d) strengthen the capacity of national agencies and civil society institutions to ensure broad based and effective and efficient implementation of land and agrarian reforms; and,
- e) facilitate the exchange of information and experiences amongst state and provide the opportunity to learn from the lessons of SADC countries that have implemented land reforms.

Policy Recommendations

- SADC with the support of cooperating partners should fast track the establishment of the proposed Technical Support Facility to build capacity in Member States to develop and implement land reform programmes that include improvements in post-settlement services, security of tenure, gender issues and the impact of HIV and AIDS and that will contribute to food security and poverty reduction.
- Given that land reform is a complex operation that requires sophisticated institutional capacity with trained technical expertise as well as substantial financial investment, SADC should facilitate further national and regional level consultations to review land reform in the context of enhancing agricultural productivity and food security in the region. This should include a thorough review of lessons learned and sharing of best practices.
- Member States to review existing national land policies with the aim of addressing land tenure security and land management issues that will facilitate improvements in production and poverty reduction.

- SADC should seek support to implement the existing sub-regional and national action plans in combating desertification and land degradation developed under the United Nations Convention to Combat Desertification. Member States have developed national action plans which aim at combating desertification, land degradation and the mitigation drought through land conservation, afforestation, water harvesting and agro forestry interventions.

5.2.3.2 Access to key agricultural inputs

The main challenge for agriculture in SADC is to increase productivity and production in a way as would eliminate food deficiency and increase export. Increased agricultural production will significantly contribute to food security and ensure food self-sufficiency thereby improving the nutritional status of the population. Improved access by smallholder producers to basic agricultural inputs such a fertilizers, pesticides and tools has been recognized by SADC as one of the means to ensuring food security.

However, agricultural performance in SADC has been characterized by low input usage, low uptake of available technologies and, consequently, low land and crop productivity. The declining performance of the agriculture sector has been a direct result of inadequate investment in rural infrastructure, and lack of access to markets, both for purchase of agricultural inputs and for the sale of products among other factors. Several SADC governments also diverted from their 1970s policy of subsidizing agriculture as a result of imposed structural adjustments of the 1980s, putting basic agricultural inputs such a fertilizers, pesticides and tools out of reach of the small producers who form the majority of the farming populations.

The withdrawal of subsidies from the agricultural sector, without putting in necessary alternative support facilities, such as supporting the private sector's investment into the sector, has also been at the centre of poor performance of the sector. For the purpose of competitiveness and to promote the development of strategic agriculture commodities there would be need to re-introduce incentive schemes such as subsidies for the very basic inputs such as fertilizers, seeds and pesticides.

Improved seed security has been recognized by SADC as one of the means to ensuring crop food security. Access to quality seed provides strategic options for easing effects of both chronic and acute food insecurity:

- i) supply of locally adapted, drought and/or disease tolerant varieties;
- ii) opportunity for food resource diversification, and
- iii) prevention of genetic erosion in rural agriculture. To this effect SADC supports a Seed Security Network to facilitate production and access of quality seed in the region.

Policy Recommendations

- Member States should develop programmes to improve access to key agricultural inputs, such as, seed, fertilizer, pesticides and drugs which are critical to agricultural production in the region.
- At regional level, SADC must explore means of becoming self-sufficient in the production of key inputs such as fertilizers and essential drugs or vaccines.
- Governments should put in place domestic support measures in agriculture which are compatible with the WTO.

5.2.4 SUSTAINABLE MANAGEMENT AND UTILISATION OF NATURAL RESOURCES IN THE SADC

Natural resources contribute significantly to food security if greater efforts are made to increase their utilization. As more people fall under the poverty *datum* line, there is a need to widen the range of livelihood systems by utilizing the huge potential of natural resources to intensify and supplement farming systems. The strategies employed in natural resources utilization should recognize environmental conservation, supplementary income through community based natural resources management activities and the development of focal markets for community initiatives if sustainable food security is to be attained. Issues of soil and water conservation, wetlands development, aquaculture, wildlife ranching and innovative forestry practices such as agro-forestry are critical to agricultural development in the region.

5.2.4.1 Forestry resources

Although Africa has only 16.8% of the world's forest cover, it accounted for 56% of the forest loss between 1990 and 2000 (FAO, 2003). The loss of forests in SADC is currently estimated at 1.62 million hectares per year and is mainly due to expansion of cultivated land, fuel wood for tobacco curing and domestic energy, urban development, wild fires and selective logging through timber concessions and unlicensed curio carvings. Forest loss has serious long-term negative impacts on agricultural productivity and the eco-tourism industry through soil loss, siltation of water catchment areas and destruction of wildlife habitats. Weak institutional capacity to enforce forest laws and to promote local value-addition has accelerated deforestation, especially by investors who are guided by short-term profit motives. The situation is expected to worsen in the light of lack of alternative energy sources and the escalating cost of electricity and liquid fuels.

As long as people are poor, they generally resort to exploitation of natural resources, which they consider to be available for free or God-given. The result is unsustainable utilization, increased deforestation, and desertification, hence the vicious circle of poverty. Forests provide a variety of products that are of critical importance to the livelihoods of local communities. To reduce forest degradation, there must be an incentive for communities to protect their surrounding woodlands. To this end, there is need for value addition on

indigenous forests through promotion of income generating activities such as beekeeping and honey production, institutionalised harvesting and commercialisation of forest products such as mushroom, indigenous tree fruits, medicinal plants, etc. and harvesting of timber and fuel wood through a permit system. Apart from increased nutrition and health, the income generated should help the local communities to earn a higher quality of life.

Industrial plantations comprised of mostly exotic pines and eucalyptus cover over 2 million hectares. Although the majority of these are privately owned and located in the moist humid high altitude areas, they contribute to household food security through employment and downstream timber processing throughout the region. Further expansion of industrial plantations is limited by unavailability of suitable land and community out-grower schemes, which have been introduced in Zimbabwe and South Africa, have the potential to transform rural livelihoods. Many countries in the region have also embraced the tradition of annual tree plantings that are usually launched by the Head of State and these have resulted in the development of many small woodlots, agro forestry practices and trees outside the forests particularly in rural areas. Such plantings have benefited farmers as major sources of fuel wood supplies, fodder for livestock, soil conservation and fertility improvement and income pathways.

To facilitate the development of forestry in the region, SADC concluded a Protocol on Forestry signed in September, 2002 and the ratification process is yet to be completed. For purposes of implementing forest policies, SADC has developed programmes on strengthening forestry education and training, applied forestry research, forest resource management and environmental management. The Secretariat has also strengthened linkages with international cooperating partners under the Rio Conventions and initiated regional projects from which lessons can be drawn on efficient forest resource management.

In view of the widespread poverty, the continued high dependence of the poor on the forest resources and the long-term consequences of environmental degradation, the key areas of focus are on improvement of the legal and institutional framework for community-based forest management; supporting the small-scale farmers in adopting integrated land uses; and strengthening the informal and small-scale forestry sector to access processing technology, information and markets for their forest-based products.

5.2.4.2 Wildlife resources

Forests offer habitats for a large population of wildlife, upon which the currently thriving tourism industry is based. Commercial viability and long-term sustainability are key issues in the management of wildlife reserves. Considering the fact that most of these reserves in both private and public land have been established by excluding local communities, many of them are increasingly experiencing conflict in resource utilization. Wildlife can contribute significantly to food security through innovative management initiatives that directly benefit the communities by providing bush-meat and

income from commercial consumptive and non-consumptive tourism enterprises. The Communal Area Management Programme on Indigenous Resources (CAMPFIRE) in Zimbabwe has been a model for the region. The growing regional collaboration, especially through the establishment of transfrontier conservation areas (TFCAs) has added a new dimension to the management of wildlife, which should also result in increased community beneficiation and sustainable food security. The Protocol on Wildlife that came into force in 2003 provides a framework for sustainable wildlife management for the region.

The major challenge is to develop policies, legislation and institutional structures that recognize wildlife as a viable land-use option, that allow community based management and beneficiation from the wildlife resource.

5.2.4.3 **Soil and Water resources**

Indigenous forests and woodlands in the SADC are often considered to be more important for the provision of environmental services than for wood production. With the increasing global climatic variability and unpredictability, which has resulted in extremes of droughts and floods, there is a clear recognition of the link between land-use and water. In this regard, watershed management and soil conservation deserve greater attention. The role of forests and trees in altering evapo-transpiration and infiltration and thus affecting downstream water availability need to be fully understood. This is particularly important in view of the ongoing land redistribution, which has tended to focus on agriculture and sometimes threatening the survival of some vital protective catchment forest areas in some countries in the region. Policies and institutional arrangements in which those in the uplands will be required to apply appropriate land use systems for protecting watersheds and equitably sharing the benefits of watershed management are critical to environmental sustainability and food security.

5.2.4.4 **Fisheries**

The Protocol on Fisheries entered into force in August 2003 and acts as a framework for sustainable use of the fish resources in order to enhance food security and human health. As part of the implementation strategies, the sector embarked on a number of projects on the Assessment of Marine Fisheries and Research; Monitoring, Control and Surveillance of Fishing Activities; Regional Fisheries Information System and the Benguela Current Large Marine Ecosystem. For the purpose of promoting aquaculture, an Aquaculture for Local Community Programme aimed at addressing food security concerns as well as income generation for local communities in the rural areas was developed. The key challenges to food security are related to lack of policies for effective management of the region's fish stocks, up-scaling of aquaculture and quality improvements in fish handling, processing and distribution.

Policy Recommendations

- a) Promote the conservation, management and utilisation of plant and animal genetic resources through programmes such as the SADC Plant Genetic Resources inline with the Convention on Biological Diversity;
- b) Member States should promote effective management of fish stocks and up-scaling of aquaculture and improve fish quality through handling processing and storage;
- c) Member States should develop programmes to conserve soil resources through conservation tillage, use of organic manure and agro forestry;
- d) Establish policy and legal reforms to monitor and curtail illegal harvesting and export of natural resources; and
- e) Increase investment in processing and packaging of natural resources in order to add value to products.

5.2.5 STRENGTHENING RESEARCH-EXTENSION-FARMER LINKAGES AND OTHER SUPPORT SERVICES

SADC Member States have long realized that agricultural research and development is necessary for the alleviation of poverty, unemployment, food insecurity, land degradation and poor management of natural resources. It has been reported that the current average economic growth rates for SADC countries is not sufficient to significantly contribute towards poverty alleviation given the population growth rate of over 3% p.a. and other existing demographic changes. Consequently SADC has urged Member States to strive for an economic growth of at least 7% annually. However, this challenge will not be easily realized because investment in research and development remains limited and research extension linkages weak. This situation has hampered the rate of technology development, transfer and adoption by farmers and resulted in low productivity.

While farming is the principal source of employment and means of subsistence for approximately 70% of the population in Southern Africa, the high proportion of farmers compared to that of developing countries do not correlate with productivity. Taking this into consideration, emerging commercial farmers with the capacity to adopt new technologies and farm larger areas in a more productive manner should be encouraged.

In addition to technology transfer, agricultural and rural extension is a unique service in that it provides access by small farmers and the rural poor living far from the urban centers to non-formal education and information services. While it can provide these populations with services to increase their productivity, their food security will depend on institutional development, educational enhancement, and income-generation, together with increased food crop output.

The recent trends currently confronting agricultural research and extension globally are also manifesting regionally and nationally. These include responses

to the effects of globalisation, privatisation, increasing commercialisation of agriculture, increased democratisation and participation, environmental degradation, increasing incidences of natural disasters, improved communications including the availability of information technology, the need to address the HIV/AIDS epidemic, preferences for multi-disciplinary approaches and holistic development.

Notwithstanding the prevailing situation, the SADC Member States have long realized that agricultural research and development is necessary to alleviate the common problems of poverty, unemployment, food insecurity, land degradation and poor management of natural resources. It is also appreciated that while considerable efforts have been made to strengthen national research institutions, they can be enhanced through regional and international collaboration to tackle common problems.

Policy Recommendations

In order to strengthen and improve agriculture research and extension capacity, a number of initiatives are required, these include:

- Member States are urged to develop priority research programmes that can be considered for funding under the competitive research program and promote research partnerships with the private sector and universities. The Secretariat has recently signed a 15m Euro agreement to support such programmes
- Member States should continue to develop crop varieties and animal breeds that are tolerant and perform better in the prevailing physical environment. Emphasis should be placed on increased yields through improved genetic materials, production systems and management techniques, including pest and disease control, land and labour productivity, agronomy, plant nutrients management, mechanization and diversification of the agricultural production.
- According to the NEPAD vision for African agricultural research and development, institutional reforms and new funding framework will be promoted. The reform agenda will address institutional and policy issues related to technology generation and transfer and the development of sub-regional scientific, managerial and technical training capacity to support science-based sustainable agricultural development. The SADC Secretariat has already taken some initiatives in this direction. A new paradigm to support research programs and networks based on competitive funding has been launched.
- In addition to the weak national research institutions, the lack of qualified postgraduate professionals is another constraint in the performance of the agricultural sector in all Member States. For many years individual SADC Member State tried to satisfy this demand by sending candidates and personnel for training outside Africa. However, there has been a broad realization that training within the region is more relevant and economic. Hence the regional development of human resource to meet the professional manpower requirements in order to strengthen the National Agricultural

Research Systems¹ (NARSs) in the areas of agricultural technology generation and transfer has been a priority for SADC.

- Cooperation in postgraduate training has been pursued through the development of “Regional Centres of Specialization”. As a response to the regional demands, regional postgraduate training programmes were developed to strengthen regional institutions and train post-graduate students in critical disciplines.

5.2.6 Gender equality

Gender inequalities in access to land are common among Member States. Women are marginalized in issues of land ownership, access to credit facilities and inputs despite the fact that they are responsible for 70% of the labour force for agricultural production.

Member States are urged to enhance gender mainstreaming, in particular repealing discriminatory laws on finance, credit and land to facilitate women access to facilities. Member States should promote technologies that are gender sensitive especially on processing.

5.3 ENHANCE ACCESS TO FOOD

5.3.1 PROMOTE AGRO-INDUSTRIAL DEVELOPMENT IN ORDER TO BOOST INCOMES

SADC Member States are undergoing profound socio-economic transformation and institutional reform as a result of economic globalisation and liberalisation. In support of these goals, SADC governments have initiated a wide range of regulatory, policy, and market reforms to accelerate regional integration and development. Through SADC transformation, Member States are developing more efficient and equitable market systems through free trade and competition in agricultural commodity and agri-food industries. In this context, SADC Member States are moving to create regional free trade, market integration, institutional convergence and policy cooperation frameworks in line with African Union and NEPAD.

Spheres of interest for Agro-industries in the SADC Region are classified as follows:

- General food policy issues
- Food safety, quality and hygiene, HACCP and GMP
- Animal and fish products
- Cereals and starches
- Fats and oils
- Fruits and vegetables
- Roots and tubers
- Other specific food products

¹ NARS refers to all public and private institutional actors involved and benefiting from agricultural research. (Should be in the acronyms)

- Non-food agricultural products

Agri-food industry aims at building capacities and capabilities at regional and national and sub-national (community) levels to contributing to sustainable industrial development. For micro and small-scale Agro-food processing the objectives are to:

- reduce post harvest losses,
- create income generating activities and employment
- develop entrepreneurship
- increase the quantity and quality of raw material available to the agro-food industry
- strengthen linkages between agriculture and industry.

For medium and large-scale agro-food processing with export potential, the objectives are strengthening competitiveness through technology improvement for horizontal/vertical diversification and value-added production as well as food safety/quality assurance.

The general approach is to:-

- Create enabling environment for the agro-food industry through improved Governance;
- Formulate policy and strategic advice for improved general and regulatory frameworks involving all the actors avoiding overlapping through joint efforts and increase cooperation linkages, to achieve synergy, awareness and common understanding;
- Strengthen the capacity of support institutions (R&D and training, food laboratories, food inspection and quality control, consulting companies in food processing, professional associations, etc.) through skills improvement and provision of demonstration and training tools and equipment;
- Direct intervention on groups of pilot enterprises, using the strengthened institutions, for demonstration/training purposes and improvement of linkages between the support institutions and the private sector.

In spite of a decline, multinational companies and global agro-food companies are expanding in SADC food production and food processing sector. South Africa is now a base for supermarket chain extension into SADC, and is emerging in as a growing base for expansion in the continent. The South African supermarket chains have the largest food retailers in SADC Member States, with many stores and franchises across the region, accruing significant revenue in sales.

Policy Recommendation

In light of the growing free trade process, there is urgent need for accelerated regional agricultural market integration, intra-regional agricultural commodity chains and agro-food industry linkage. The growing demand for high quality safe food in SADC should gain more attention on the part of SADC governments, multilateral institutions, farmers and agro-food processors, and international food companies and industries.

Impact will be ensured through integrated and joint activities covering complementary fields such as quality and standardization, MSMEs development, investment promotion, energy, environment and information.

5.3.2 Food Security and Trade in Agricultural Products

Trade liberalisation, which has gripped the world economy as one of the key instruments for development and economic growth is equally important for ensuring sustainable food security in SADC. SADC Member States remain heavily dependent on agriculture for their economic development. The need for liberalisation of trade in agriculture cannot be overemphasised given the trade relations enjoyed in SADC. The approach to food security should have a deliberate bias toward boosting agricultural production, food trade and domestic consumption. In order to further liberalise trade in agriculture, which is a very sensitive area, it is critical that the region strengthens the rules and disciplines governing trade in agriculture to promote development. These rules and disciplines should ensure that trade liberalisation takes into account public policy non-trade concerns such as food security, sustainable rural development and poverty alleviation.

While the Protocol on Trade has led to the liberalization of trade in agricultural products, it needs to go further and ensure commercially viable market access for all agricultural products originating in SADC including those at the higher end of the processing chain. In doing so, due account will be taken of the need to protect, not only public health but also the spread of transboundary plant and animal diseases. In this regard, SADC Member States should expedite the harmonisation the Sanitary and Phytosanitary (SPS) measures that currently tend to restrict trade of agricultural products. However, the harmonization of these measures should not compromise the need to control livestock and plant diseases.

With respect to market access, SADC Member States have undertaken unilateral liberalisation and deregulation of the agricultural sector such that most countries attained higher levels of liberalisation that have gone beyond that required by the Agreement on Agriculture at the World Trade Organisation level. Given the differing rainfall cycles experienced in the region, some countries produce more food when others don't have. Trade facilitation becomes important in ensuring that those parts of the region that have no food do manage to access the food from other regional countries. Non- tariff barriers to trade should be addressed.

It is obvious that importation of subsidised products, either through export subsidies or export credits, undermines the viability of SADC agriculture and delay the prospect of making a break from the stranglehold of poverty and underdevelopment. Some SADC Member States face a difficult situation in which their own producers and food processors are being squeezed out of international, regional and even national markets by transnational companies importing subsidised food products. In the light of this, it is proposed that SADC Member States avoid providing trade and production distorting domestic support measures. They should, however, create stable and predictable market access and employ policy measures which target the viability of small-scale and subsistence farmers, rural poverty alleviation, food security, as well as product diversification. Such elements should take into account the need to strengthen vulnerable producers and to improve their export competitiveness. This also entails putting in place measures that would ensure that the food market is a competitive one and that it is supported by enhanced agricultural productivity; infrastructure building; product diversification; transfer of new technology; market information dissemination; and export development. These conditions are necessary for achieving sustainable food security in the region.

With respect to trade in Genetically Modified Organisms (GMOs) products should be based on scientifically proven information. It is therefore necessary that there is strict compliance with the International Convention on Biological -Diversity (CBD), and the Protocol on Bio-Safety as well as national regulations governing trade in GMO products.

Policy Recommendations

The region must strengthen the rules and disciplines governing trade in agriculture to promote development. These rules and disciplines should ensure that trade liberalisation ensure commercially viable market access for all agricultural products originating in SADC including those at the higher end of the processing chain.

The region must ensure full liberalization of trade in agricultural products and access to commercially viable markets for all agricultural products originating in SADC including those at the higher end of the processing chain.

The SADC Secretariat and Member States should expedite the harmonization of the Sanitary and Phytosanitary (SPS) measures that currently tend to restrict trade of agricultural products including the finalisation of the SPS Annex to the SADC Protocol on Trade. However, the harmonization of these measures should not compromise standards and the control of livestock and plant diseases;

Non- tariff barriers to trade should be addressed

With respect to market access, SADC Member States have undertaken unilateral liberalisation and deregulation of the agricultural sector such that most countries attained higher levels of liberalisation that have gone beyond that required by the Agreement on Agriculture at the World Trade Organisation level.

Member States should create stable and predictable market access and employ policy measures which target the viability of small-scale and subsistence farmers, rural poverty alleviation, food security, as well as product diversification.

Trade in Genetically Modified Organisms (GMOs) products should be based on scientifically proven information. It is therefore necessary that there is strict compliance with the International Convention on Biological -Diversity (CBD), and the Protocol on Bio-Safety as well as national regulations governing trade in GMO products and the SADC approved guidelines on GMOs.

5.4 ENHANCING DISASTER PREPAREDNESS

5.4.1 Establishment of a Regional Food Reserve Facility including the Strengthening of Early Warning Systems, and Vulnerability Assessments

There is wide recognition that the recurrent food crises in southern Africa are largely an outcome of growing poverty and vulnerability, compounded by an increasingly uncertain and complex economic environment. The erosion of household assets, reduced crop production, exacerbated by the high prevalence of HIV/AIDS across the region, has resulted in extremely high levels of vulnerability across the region.

Vulnerability to food insecurity and poverty has also been compounded by successive years of droughts, floods and reduced investments in agriculture. Food production has oscillated sharply from year to year, leading to increased grain imports and emergency food. Significant resources from both local and external sources that could have been used for development have had to be diverted to meet the emergency requirements.

The 2002/2003 experiences have demonstrated the need for the region to be prepared for such crisis. This calls for a longer-term strategy, which is cost effective, minimises risks, and builds the basic foundations for long-term growth. The establishment of a functional regional food security information system could be such a strategy which could promote trade while contributing to enhancing capacity for timely delivery of food supplies to affected populations in emergencies and minimising disruptions on longer-term agricultural growth and development.

The regional food security information system would incorporate:

- 1) a Regional Food Reserve Facility that allows SADC to respond better to foods emergencies, with optimal level stocks and their location within the region, operational rules of stocking/de-stocking and strategies to financing the facility,
- 2) an Early Warning and Monitoring component not only for food reserve but also to identify and monitor pending emergencies, which should be linked to

- 3) Vulnerability Monitoring and other systems that identify populations and areas most at risk, monitor livelihoods, vulnerability and poverty mapping and recommend programmes and initiatives linked to poverty reduction.

5.4.1.1 Food Reserve Facility

The need to establish a SADC Food Reserve Facility has been debated upon for long without a convergence on the optimal format of such a reserve. Since the 1980s, SADC Member States proposed the establishment of a Regional Strategic Food Reserve that included prevention and preparedness to deal with the growing frequency of disasters. Early proposals were based on considerations that SADC countries felt food-secure when they held in their silos enough physical maize stock for a year's consumption. However, the cost of storing grain has led to a rethinking on the optimal levels and modalities of the food reserve.

In July 2002, SADC Ministers of Agriculture and Natural Resources agreed that the existing Regional Food Reserve proposal should include both a physical reserve and a financial facility, following a shift in thinking from national self-sufficiency to a trade-based regional approach. In pursuit of the need to establish a food reserve, SADC has recently sought support from the World Bank to design a Food Reserve Facility for the region. As an initial step, the World Bank is to undertake short case-studies in 4 Member States to determine the nature, level and modality of the Strategic Food Reserve Facility, drawing on experiences from other regions of the world where this has been done.

The case studies are to look at the following three issues:

- Early warning and monitoring system (including a review of the SADC Food Security Early Warning System);
- The food reserve system that allows SADC to respond better to foods emergencies, with its optimal level stocks, rules of stocking/de-stocking, strategies to financing it;
- Risk insurance instrument that identifies the risk management strategy and safety-net support and strategies for financing it.

It is expected that the results of the studies will help SADC and the Bank to determine the Facility and how it will operate. Soon after the end of the study, a workshop will be organised at which the results will be presented to representatives of all SADC member states.

5.4.1.2 A Risk Insurance Instrument

A Risk Insurance Instrument that identifies the risk management strategy and safety-net support and strategies for financing it. Consideration could be given to adapting grain futures trading approach and other market guarantee schemes for producers. The presence of a food commodity exchange in South Africa has potential in providing risk insurance and fostering greater inter-regional trade.

5.4.1.3 Early Warning Systems

The rapid collection, analysis and dissemination of credible information is the keystone for an effective early warning system. The SADC Regional Early Warning System, (REWS) is a well established and operational mechanism for assembling and analysing food security information within the region.

In 2003, the Regional Early Warning System was merged within new the FANR Directorate where its core functions and activities will continue to be carried out within an expanded role. This includes widening the scope of early warning to include broader food security issues such as coverage of livestock and commodity markets, livelihood/vulnerability analysis and cross-cutting issues, with stronger linkages to the SADC policy environment.

The System provides advance information on food security through analysis and monitoring of food crop production prospects, food supplies and food requirements in order to alert Member States and the humanitarian community of impending food shortages in sufficient time for appropriate interventions to be made.

The integration of REWU within the FANR Directorate came at a time when SADC was completing the *Regional Indicative Strategic Development Plan (RISDP)*. This plan recognises, that in order to address the underlying causes of the region's complex and chronic vulnerability, and to make progress towards the Millennium Development Goals, there is a need to broaden and improve early warning information at national and regional level, and for better vulnerability assessment at national and sub national levels.

In order to achieve these aims, SADC has played a pivotal role in the development of the Regional Vulnerability Assessment Committee (RVAC), a multi-agency committee which has spearheaded critical improvements in food security and vulnerability analysis at regional and country level.

Policy Recommendations

In order to reduce poverty and anticipate the risk of food insecurity resulting from natural disasters, it is recommended that:

- SADC should establish a food reserve facility that allows SADC to respond better to food emergencies, that determines optimal level of reserve stocks, sets operational rules of stocking/de-stocking and devices strategies to financing the food reserve; and
- Member States are urged to support SADC Secretariat's current initiative to engage the World Bank to design a Food Reserve Facility for the region through case-studies in selected Member States to determine the nature, level and modality of such a food reserve facility.

- A Risk Insurance Instrument that identifies the risk management strategy and safety-net support and strategies for financing it. Consideration could be given to adapting grain futures trading approach and other market guarantee schemes for producers. The presence of a food commodity exchange in South Africa has potential in providing risk insurance and fostering greater inter-regional trade; and
- Member States need to strengthen Early Warning Systems including the rapid collection, analysis and dissemination of credible information. The Secretariat and Member States should expedite and broaden the collection of data to coverage of trade and livestock and crops that are part of the food balance sheet.

5.4.1.4 Improving Systems to Assess and Respond to Vulnerability and Poverty in the SADC Region

The SADC Regional Vulnerability Assessment Committee (RVAC) was established in 1999 and is comprised of regional and international professionals working to enhance food security and livelihood analysis within the SADC member states. The mandate of the RVAC is to: (1) keep abreast of and encourage co-ordinated development in the field of vulnerability and livelihoods assessment in the SADC region, and (2) to strengthen capacity of Member States to undertake and utilize vulnerability assessments for the purposes of food security planning in both emergency and non-emergency situations.

Following the 2002/03 agricultural seasons, much of Southern Africa was in the grip of an acute food crisis. The serious impact of the crisis on livelihoods is a product of chronic and acute vulnerability to food insecurity at the household level. In fulfilling its mandate to provide leadership in assessment of vulnerability to food insecurity in the SADC region, the RVAC co-ordinated a series of vulnerability assessments in six SADC countries most affected by the food crisis. In collaboration with National Vulnerability Assessment Committees (NVACs). Assessments were conducted in August and December 2002, and April/May 2003.

The importance of 2002-03 vulnerability assessments in SADC has been highlighted at the SADC Ministerial level and is included in the RISDP as part of the medium term strategy to combat food insecurity in the region. As a central part of this strategy, Ministers of Agriculture encouraged Member States to establish cross-sectoral and inter-agency vulnerability assessment groups or units. These were charged with providing a better understanding of household food security and livelihood conditions to allow for better targeting of emergency and development interventions. The FANR-RVAC has been called upon to provide leadership and technical backstopping to these national level groups or units.

As articulated in the RISDP, the overall goal of cooperation in Food Security is to achieve sustainable access to safe and adequate food at all times by all people of in the region. The broad FANR policy framework recognises the promotion of food security as a priority objective. The SADC-RVAC is a vehicle to support and achieve this objective.

5.5 MITIGATING THE IMPACTS OF HIV AND AIDS ON AGRICULTURE AND FOOD SECURITY

Southern Africa is undergoing an HIV/ and AIDS crisis and the situation has placed the region in a state of severe vulnerability. HIV & AIDS epidemic poses a potential major threat to food security and nutrition.

The agriculture sector is an area where the impact of HIV & AIDS has been profound. The problems associated with the epidemic are largely a consequence of high levels of morbidity and mortality among the working age population, thus reducing the output of agriculture both food and non-food, in both small scale and commercial units of production. The Agriculture Sector in the SADC region is particularly affected by the HIV and AIDS crisis because the sector largely employs labour intensive farming systems with low levels of mechanisation and inputs. According to the Food and Agriculture Organization, up to 26 percent of the agricultural Labour force could be lost in countries of sub-Saharan Africa by 2020.

HIV and AIDS undermines agriculture because of its toll on the labour force as more than a third of the Gross National Product (GNP) of the most affected countries comes from agriculture. AIDS threatens food security due to loss of productive members of society and is severely affecting households' capacity to produce and buy food. In addition, fostering AIDS orphans and hosting and caring for the sick and provision for mourners at funerals reduce the amount of food available for each household member. This also jeopardizes the livestock industry and longer term food security and survival options.

HIV & AIDS increases malnutrition of people living with AIDS due to the increasing impoverishment of the household. This decreases Women's farming activities due to their role as care providers for the sick.

HIV/ and AIDS, food security and the humanitarian emergency—each fuelling the severity of the other, demand a far greater and more unified multisectoral and holistic programming response from the community as a whole than seen to date in Southern Africa.

During the SADC HIV & AIDS Summit held in July 2003, in Maseru Lesotho, the Heads of State and Government declared Food Security as one of the areas requiring urgent attention and action and that a joint ministerial meeting on food security should be held for effective implementation of food security programmes in the region.

Guided by the SADC HIV and AIDS Strategic framework and Plan of Action, 2003-2007, SADC is collaborating with its expanding network of national, regional and international partners in the fight against HIV and AIDS to, among others, ensure food security in the Region.

Policy Recommendations

The following options are recommended as responses to HIV and AIDS in agriculture:

- Promotion of labour-saving technologies at all levels.
- Improve knowledge preservation and transmission of HIV and AIDS
- Strengthening of rural institutions and capacity building
- Promotion of gender equality
- Improved nutrition and nutrition education
- Strengthen social and economic safety nets
- Mainstreaming of HIV/AIDS in agricultural policies.

SADC Secretariat

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References