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Regional Strategic Analysis and Knowledge Support System (ReSAKSS)

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Status and Trends of Agricultural and Rural Development Indicators in the COMESA Region

UNFORMATTED VERSION

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About ReSAKSS

The Regional Strategic Analysis and Knowledge Support System (ReSAKSS) is an Africa-wide network of regional nodes supporting the Common Market of Eastern and Southern Africa (COMESA), the Economic Community of West African States (ECOWAS), and the Southern African Development Community (SADC), in collaboration with the International Food Policy Research Institute (IFPRI) and the Africa-based centers of the Consultative Group on International Agricultural Research (CGIAR), to facilitate the implementation of the AU/NEPAD's Comprehensive Africa Agriculture Development Programme (CAADP) and other regional agricultural development initiatives in Africa.

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

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1. Introduction

1.1 Report Structure

This report is divided into eight sections, section one provides an introduction about the COMESA region and the structure of the economy in the region. Section two presents trends of various socioeconomic indicators in the region. Section three contains gender related information while section four focuses on food security in COMESA. Some examples of subnational food security situations are also given here. Section five focuses on various indicators related to agriculture in COMESA including agriculture and food production, input utilization in agriculture, and application of irrigation in agriculture. Section six provides information on expenditures in agriculture and agricultural value addition in the region. In section seven, various indicators on trade are reviewed. The last section, section eight, contains summary, conclusions, and policy recommendations.

1.2 Importance of Annual Trends Reports for COMESA

Annual reporting of socioeconomic and agricultural trends in COMESA is critical in order to facilitate effective monitoring and documentation of the progress being made with regard to the achievement of the Comprehensive African Agriculture Development Program (CAADP) and other developmental goals. CAADP is a common framework for agricultural development and growth for African countries which has the following principles:

- The principle of agriculture-led growth as a main strategy to achieve the Millennium Development Goals (MDGs) goal of poverty reduction.
- The pursuit of a 6% average annual sector growth rate at the national level.
- The allocation of 10% of national budgets to the agricultural sector.
- The exploitation of regional complementarities and cooperation to boost growth.
- The principles of policy efficiency, dialogue, review, and accountability, shared by all NEPAD programs.
- The principles of partnerships and alliances to include farmers, agribusiness, and civil society communities.
- The implementation principles assigning the roles and responsibility of program implementation of the individual countries, that of coordination to designated Regional Economic Communities (RECs), and that of facilitation to the NEPAD Secretariat.

CAADP has four main pillars and one additional pillar that caters for cross cutting issues as described below:

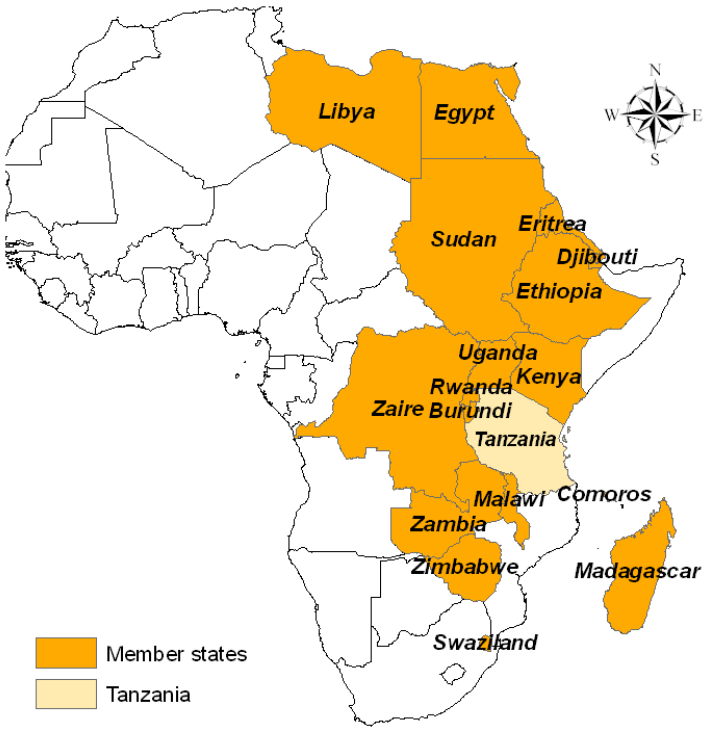
i. Extending the area under sustainable land management and reliable water control systems
ii. Improving rural infrastructure and trade-related capacities for market access
iii. Increasing food supply and reducing hunger
iv. Agricultural research, technology dissemination and adoption
v. Critical areas that cut across the above four pillars

This report intends to provide information on the indicators to monitor CAADP indicators as well as other main agriculture and socioeconomic indicators. The ReSAKSS trends reports are generally generated using country level data to facilitate peer learning and review among the COMESA countries. Appreciating the limitation of national level data in providing information on intra-country variations, the report contains sub-national information for some indicators and countries.

1.3 COMESA Region and the Structure of Economy

The COMESA region is comprised of 19 countries (after the withdrawal of Tanzania). The current member countries include Burundi, Comoros, Democratic Republic of Congo (DRC), Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia, and Zimbabwe (see Figure 1). Although Tanzania is not a COMESA member state, it is included in this report because it is within the East and Central African region. ReSAKSS ECA is mandated to provide analytical, knowledge, and information services to support the decisionmaking in agriculture and rural development in this region. Hence Tanzania will be featured throughout the report. The report has attempted to provide monitoring data for all COMESA countries and Tanzania for most of the indicators, however because of data limitations for some indicators some countries will be missing.

Figure 1: COMESA member states



The region has an annual average Gross Domestic Product (GDP) of about US$250 million. Agriculture is an important economic sector in most of the COMESA countries. It contributes more than 30% of the GDP in Sudan, Ethiopia, Rwanda, Burundi, the DRC, Uganda, Tanzania, and Malawi (see Table 1 and 2).

Table 1: Contribution of agriculture in total GDP (%)* in COMESA countries

Average Period	Less than 20%	20-39.99%	40% and above
1984-86	Seychelles, Zambia, Mauritius, and Zimbabwe	Madagascar, Swaziland, Malawi, DRC, Kenya, Sudan, Rwanda, and Comoros	Burundi, Ethiopia, and Uganda
2000-2003	Seychelles, Mauritius, Swaziland, Eritrea, Zambia, and Zimbabwe	Madagascar, Kenya, Malawi, and Uganda	Tanzania, Sudan, Ethiopia, Rwanda, Burundi, Comoros, and DRC
2006	Egypt, Eritrea, and Zambia	Madagascar, Kenya, Burundi Malawi, Uganda, Sudan, and Zimbabwe	Ethiopia, DRC, Tanzania, and Rwanda

Source: *African development indicators 2004 in FAO 2006a* and World Bank 2008
*Some countries are missing because they have no data

Table 2 indicates the total GDP in million US dollars and sectoral contribution to the GDP for the COMESA countries in the year 2006. The table also presents the average GDP growth rate for the period 2000 to 2005 and 2000 to 2006. In terms of total GDP for the year 2006, Egypt had the highest GDP (US$107,484 million), followed by Sudan and Kenya (US$37,565 and US$ 21,186 million respectively). Average growth rates for the period from year 2000 to 2006 were in the range of 2% to 4.5% in the majority of countries. Of the countries presented in the table, Sudan, Uganda, Ethiopia, Rwanda, and Tanzania were the only ones that attained an average annual growth in GDP greater than 5 percent over the years 2000 to 2006. Slowest growth rates occurred in Burundi (2.5%) and Madagascar and Eritrea (2.7%). Zimbabwe experienced a decline in GDP at an average rate of 5.6 percent. In the year 2006, agricultural value addition to the total GDP was more than 30% in the majority of the COMESA countries (Table 2). The highest contribution occurred in Ethiopia (48%) followed by DRC (46%), Tanzania (45%), and Rwanda (41%). The industrial sector had the highest contribution to the GDP in Egypt (36%). High proportions of value addition from the service sector were reported in Eritrea (60%), Madagascar (57%), Zambia (56%), and Kenya (55%).

Table 2: GDP growth rates for COMESA countries 2000–2006

Country	Total GDP US$ millions 2006	Average annual % growth in GDP 2000-2005	Average annual % growth in GDP 2000-2006	Value added as % of GDP in year 2006		
				Agriculture	Industry	Services
Burundi	800	2.2	2.5	35	20	45
DRC	8,543	4.4	4.7	46	28	27
Egypt	107,484	3.7	4.0	15	36	49
Eritrea	1,085	3.6	2.7	17	23	60
Ethiopia	13,315	4.2	5.7	48	13	39
Kenya	21,186	2.8	3.8	28	17	55
Madagascar	5,499	2.0	2.7	28	15	57
Malawi	2,232	3.4	4.1	36	20	45
Rwanda	2,494	4.9	5.1	41	21	38
Sudan	37,565	6.1	6.9	31	35	34
Tanzania	12,784	-	6.5	45	17	37
Uganda	9,322	5.4	5.6	32	25	44
Zambia	10,907	4.7	4.9	16	25	56
Zimbabwe	5,010	-6.1	-5.6	22	27	51

Sources: World Bank 2007 and World Bank 2008

Despite the importance of the agricultural sector to the economies of the COMESA countries confirmed by its contribution to the GDP in Tables 1 and 2 above, its performance has been poor. Average growth rates in the agricultural GDP value addition in several countries in the region have been growing at rates slower than the Sub-Saharan average for a number of years (Table 3). The three years average for years 2005 to 2007 indicated declines in Burundi, Comoros, Mauritius, and Zimbabwe. All other countries (except Eritrea, Ethiopia, Kenya, Sudan, and Uganda) had growth rates lower than 5% in the same period. The existence of slow growth rates in agricultural GDP in the COMESA countries is also illustrated by historical trends data on agricultural GDP in Appendix 3. The table indicates that growth rates in agricultural GDP have been less than 3% for most of the countries in the region since the 1970's and this continues to be the case in this decade.

Table 3: Performance of agriculture in COMESA: GDP, agriculture value added (annual % growth)

Country	1987-1989	1990-1992	1993-1995	1996-1998	1999-2001	2002-2004	2005-2007
Burundi	1.67	3.67	-7.00	2.33	-3.00	0.00	-7.00
Comoros	3.33	1.67	2.33	2.67	6.33	3.00	-1.00
DRC	2.67	3.00	4.33	-0.67	-4.67	1.00	3.00
Djibouti		2.00	-4.00	1.33	2.00	3.33	3.50
Egypt, Arab Rep.	3.00	2.33	3.00	3.33	3.33	3.33	3.33
Eritrea			2.00	17.33	-7.33	-4.00	6.00
Ethiopia	5.33	2.67	2.33	3.00	5.33	1.67	11.33
Kenya	4.33	-0.33	1.67	4.00	5.33	0.33	6.67
Madagascar	3.33	1.67	1.67	2.33	2.67	1.00	2.33
Malawi	1.67	-4.00	21.33	12.00	3.00	0.33	3.33
Mauritius	-2.33	1.33	-2.33	4.67	3.33	-2.33	-1.67
Rwanda	0.00	2.67	-6.33	11.33	8.33	3.33	4.33
Seychelles	-3.67	-2.00	-1.00	3.00	4.67	-2.67	4.00
Sudan	10.33	1.33	1.33	13.33	3.33	-0.33	6.67
Swaziland	1.67	-6.00	-1.00	7.33	-1.67	2.33	2.00
Tanzania		2.50	3.67	2.67	4.00	5.00	4.50
Uganda	4.67	2.33	5.67	2.33	5.67	3.67	5.00
Zambia	4.67	-12.33	27.33	-1.67	3.00	2.33	2.67
Zimbabwe	0.67	-3.33	8.67	9.33	1.00	-9.00	-10.00
Sub-Saharan Africa	**4.00**	**-0.67**	**3.00**	**5.00**	**3.33**	**1.67**	**5.00**
World	**2.33**	**2.00**	**0.67**	**3.00**	**2.67**	**2.33**	**3.00**

Source: World Bank 2008a

2. Trends of Various Socioeconomic Indicators

This section presents various socioeconomic indicators on agriculture and development within the COMESA region. The indicators presented here include those related to population, human development, poverty and economic development, education, and child mortality.

Indicator 1: *Population growth rate*

The population growth rate is high in the COMESA region. Figure 2 presents average annual growth rates (%) for the period from 2000 to 2006. The figure indicates that average annual population growth rates for all member countries (except Zimbabwe, Mauritius, Seychelles, and Swaziland) have been higher than the World's average of 1.2% per year (World Bank 2007). Zimbabwe has the slowest growth rate of all COMESA countries (0.6 percent) followed by Seychelles and Mauritius (both having a growth rate of 0.9 %). Eritrea has the highest population growth rate (4.1%).

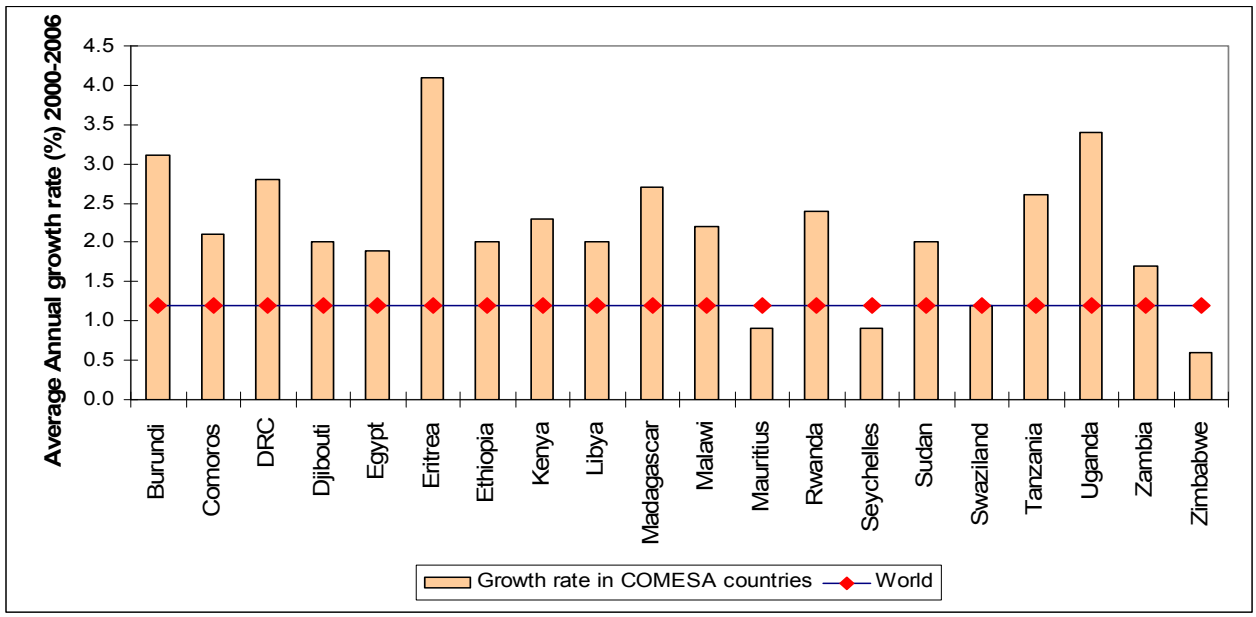


Figure 2: Population growth rate for the COMESA countries compared to the World Average
Source: World Bank 2007

Indicator 2: *Total population and rural population*

The average total population in the COMESA region has been on a steady rise. Figure 3, below, indicates the average population in COMESA between 1960 and 2005. The graph shows an increasing trend in this period. Table 4 indicates that the region has had a 53% increase in its population in the period between 1990 and 2007. At the country level, highest population increases (greater than 60%) were experienced in DRC, Ethiopia, Madagascar, and Uganda.

The average rural population has been declining while the urban population is gradually increasing (Figure 4). However, the majority of the region's population still resides in the rural areas. Based on data from the World Bank in 2007 about 75.2% of the COMESA population lived in the rural areas in the year 2005. AfDB 2008 statistics indicate that by the year 2007 the highest concentrations of rural population were found in Burundi (90.1%), Uganda (87.4%), Ethiopia (83.4%), and Malawi (81.8%) (See Table 4). Djibouti is the most urbanized country with only about 13.1% of its population living in the rural areas (AfDB 2008).

Indicator 3: *Population density*

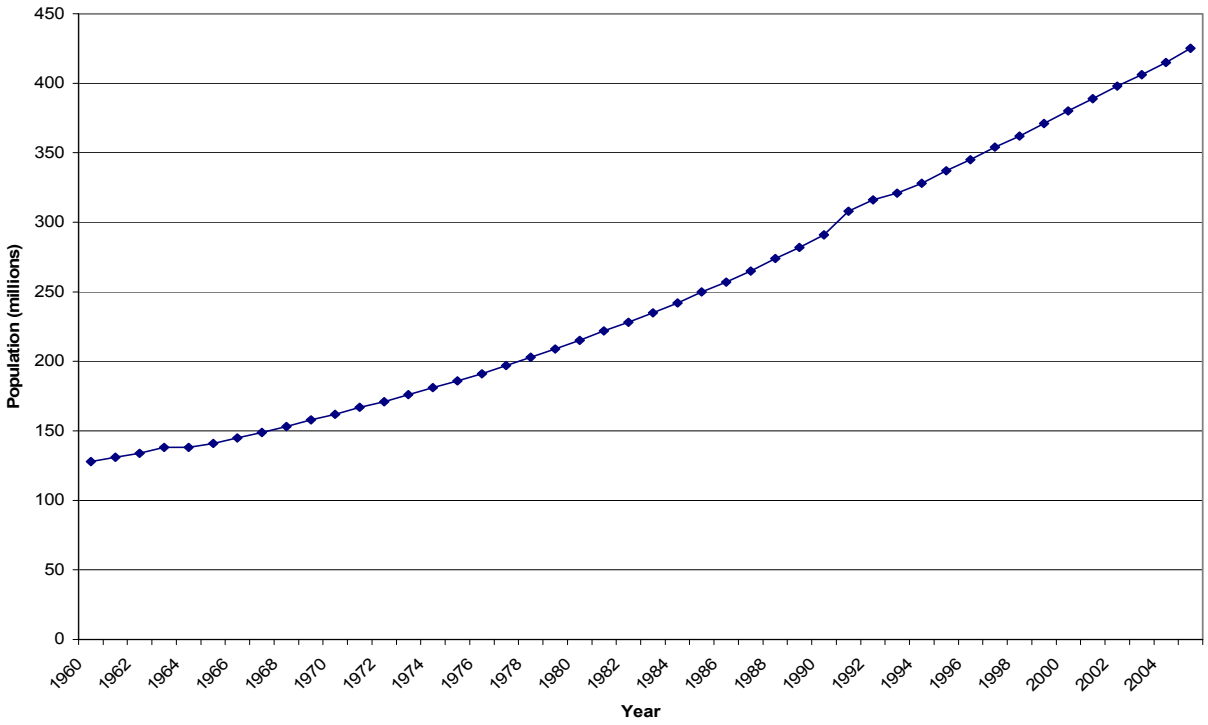
Population density (number of people per square kilometers) varies widely among the COMESA member countries. Since this factor is influenced by the size of a country, even countries with relatively fewer people can be densely populated if they have small surface areas. Based on statistics from AfDB 2008 high densely populated countries in the year 2007 included Mauritius (631 people/sq.km), Comoros (475 people/sq.km), Rwanda (374 people/sq.km), Burundi (304 people/sq.km), Seychelles (174 people/sq.km), Uganda (128 people/sq.km) and Malawi (118 people/sq.km). Libya had the least population density in the region, with only four people per square kilometer (Table 4). The population density for COMESA is 36 people per square km (Table 4).

Table 4: Population and population density in the COMESA countries 1990–2007

Countries	Population 1990 (millions)	Population 2005 (millions)	Population 2007 (millions)	% Change 1990-2007	Rural population (% of total) 2007	Population density 2007 (people/sq.km)	Ppln growth rate
Burundi	5.7	8	8.5	49.1	90.1	304	3.4
Comoros	0.5	0.6	0.8	60.0	72	415	2.1
DRC	37.9	58	62.6	65.2	66.8	27	2.8
Djibouti	0.6	0.8	0.8	33.3	13.1	36	1.8
Egypt	55.1	74	75.5	37.0	57.3	75	1.9
Eritrea	3.2	4	4.9	53.1	79.5	41	4.3
Ethiopia	51.1	71	83.1	62.6	83.4	75	1.9
Kenya	23.4	34	37.5	60.3	78.8	63	2.2
Libya	4.4	5.9	6.2	40.9	22.6	4	2
Madagascar	12.0	19	19.7	64.2	70.8	34	2.7
Malawi	9.4	13	13.9	47.9	81.8	118	2.2
Mauritius	1.1	1.2	1.3	18.2	57.5	631	1
Rwanda	7.3	9	9.7	32.9	82.4	374	1.4
Seychelles	0.1		0.1	0.0	45.7	174	1
Sudan	25.9	36	38.6	49.0	57.4	15	1.9
Swaziland	0.9	1.1	1.1	22.2	75.2	67	1.3
Tanzania	25.5	38	40.5	55.8	75.0	43	1.9
Uganda	17.8	29	30.9	73.6	87.4	128	3.5
Zambia	8.1	12	11.9	46.9	64.8	16	1.6
Zimbabwe	10.5	13	13.3	26.7	63.3	34	0.6
COMESA (Excluding Tanzania)	**275**	**389.7**	**420.4**	**52.9**		**36**	

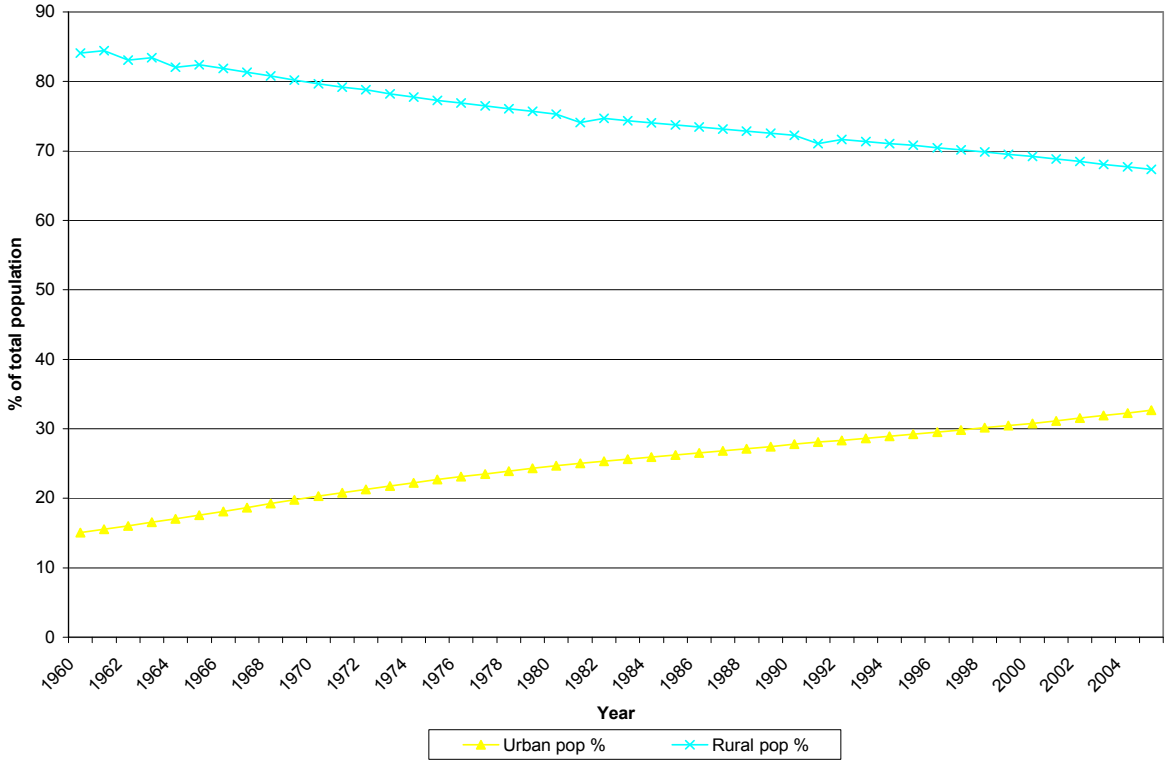
Sources: World Bank 2007a, UNCTAD Statistical profiles of the least developed countries 2005, AfDB 2008

Figure 3: Average population in COMESA region, 1960–2005



Source: World Bank, 2007

Figure 4: Rural-urban population trends in COMESA, 1960–2005

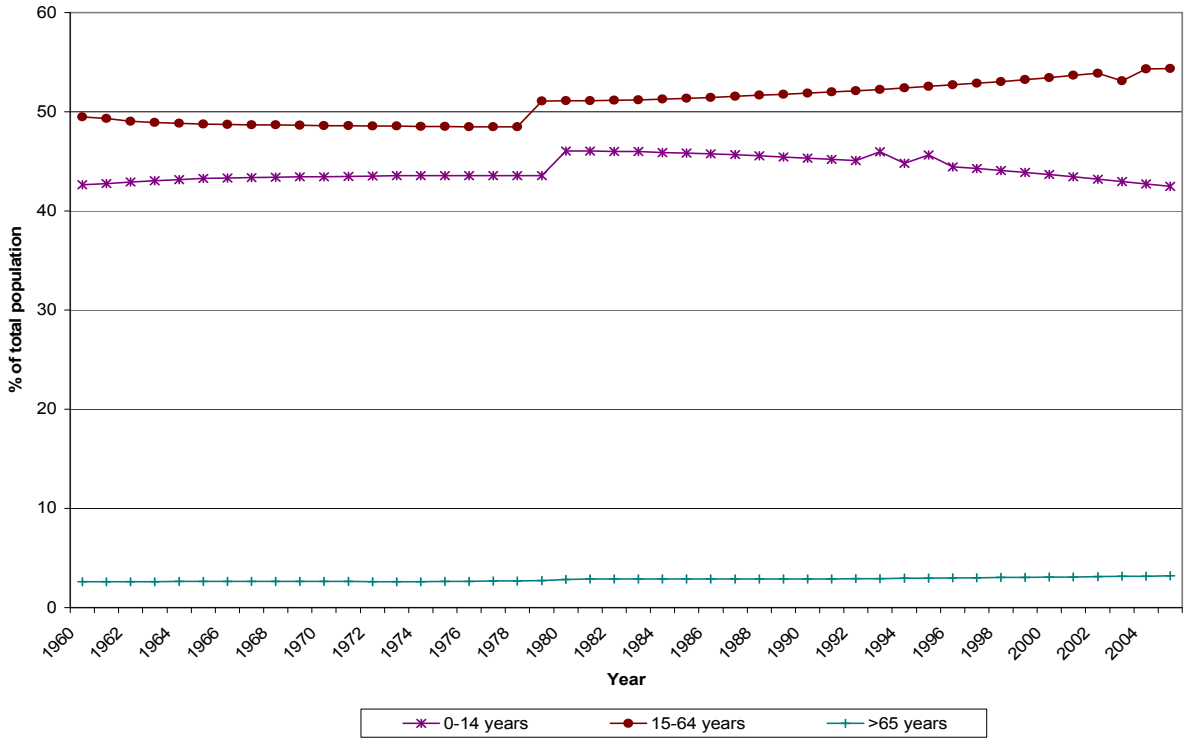


Source: World Bank 2007

Indicator 4: *Population age structure*

On average, 50.75% of the COMESA population is between 15-64 years old, 46.43% is in the 0-14 age bracket, while some 2.82% are above 65 years old. Comoros has the lowest population in each category (25.81% in 0-14 age cohort, 29.3% aged between 15-64, and 1.41% in the >65 years bracket). Mauritius has the largest proportion of people in the 15-64 age bracket (60.65%) and above 65 years old (4.25%). Uganda on the other hand, has the highest child population in the region (48.41%). The economically active population (15-64 years old) in the region is gradually rising, while the proportion of the population above 65 years old is relatively stable, and child population is on a slight decline (Figure 5).

Figure 5: COMESA Population structure by age-brackets, 1960–2005

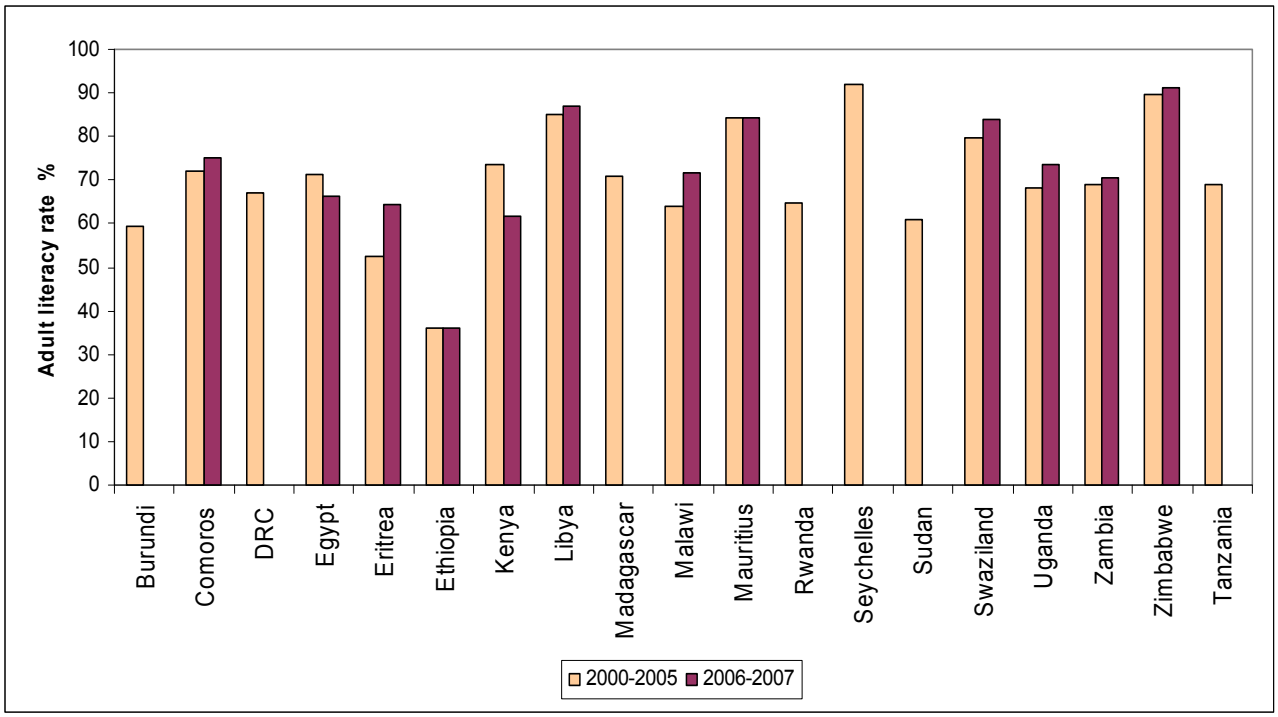


Source: World Bank 2007

Indicator 4: *Human development*

Human development is an important parameter for sustaining the society's capacity to improve welfare. Literacy levels form a key pillar for enhanced decisionmaking on suitable investment choices and resource allocation priorities over time. It is a major driver for development of COMESA countries. It is envisaged that as a country's/region's literacy level rises, the quality of public investment outcomes would improve as the society focuses more on high-value development expenditure areas that bear equitable gains to a broader spectrum of the population. Adult literacy level is less than 75% for most countries in the region (Figure 6, Table 5). These levels are lower than the world's average of 79%. However, there seem to be some improvements as trend data for some countries indicate (Figure 6). The rising trend is expected to continue or even be observed in other countries. UNESCO highlights several factors that are likely to positively influence the education sector. First, is the growing involvement of NGOs, civil society organizations, and local communities in promoting literacy in the region. Second is an, increase in the number of initiatives proposing literacy programs and services. Finally, there is an expansion of efforts to make these developments and initiatives better known (http://portal.unesco.org/education).

Figure 6: Average literacy levels in COMESA

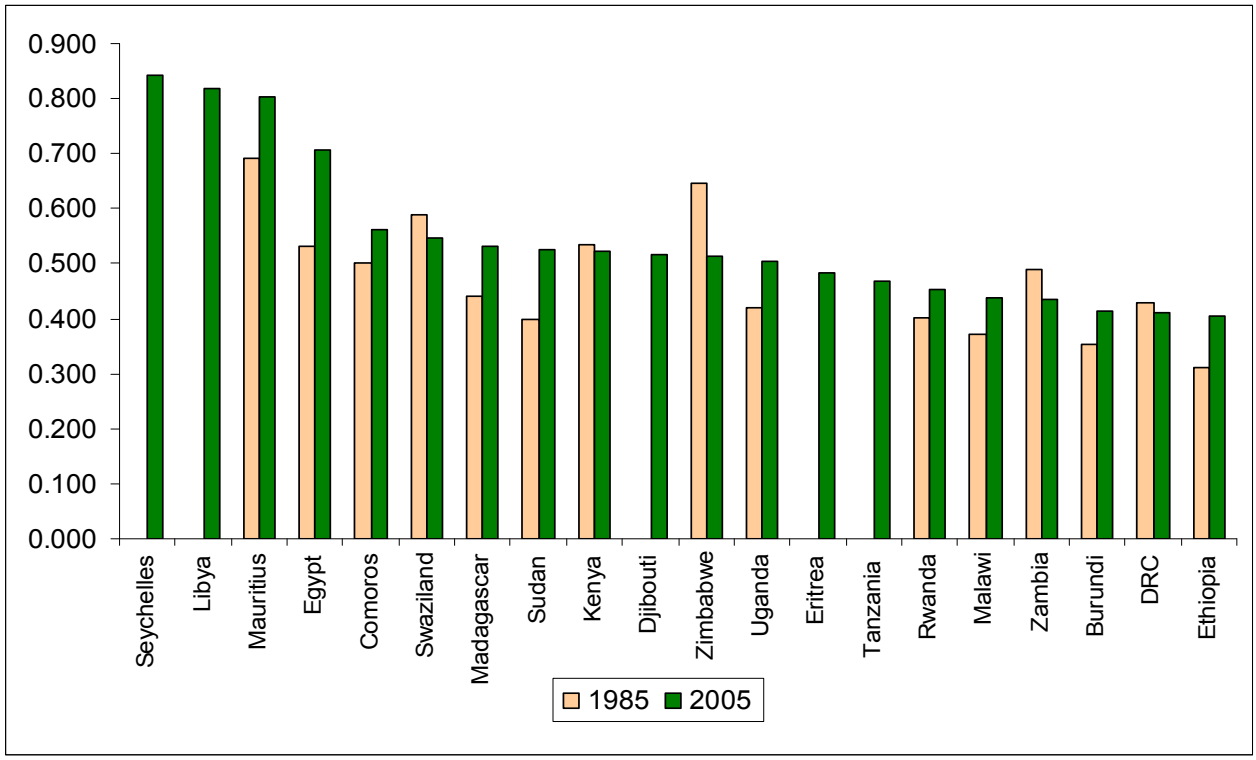


Source: http://stats.uis.unesco.org/unesco/TableViewer/dimView.aspx accessed in May, 13rd, 2009

Indicator 5: *Human Development Index (HDI)*

HDI is a composite index measuring average achievement in three basic dimensions of human development–a long and healthy life, knowledge, and a decent standard of living. HDI facilitates the evaluation of progress in human capabilities over time and across countries and regions. Such evaluation facilitates the determination of priorities for policy intervention (UNDP Kenya 2006). In numerical terms, HDI values range from 0 to 1 where, 1 indicates the highest level of human development. Based on the 2007-2008 Human Development Report, three COMESA countries (Seychelles, Libya, and Mauritius) are classified as countries with high human development (as per HDI values for year 2005). Nine countries are under the category of medium HDI and seven countries (Eritrea, Rwanda, Malawi, Zambia, Burundi, Congo DRC, and Ethiopia) fall into the category of Low Human Development. All countries in the last category had HDI values lower than the average for the least developed countries and lower than the average for Sub-Saharan Africa (Table 5). Figure 7, indicates HDI values for COMESA countries for which data was available for the years 1985 and 2005. From this figure it can be noted that some COMESA countries have experienced a decrease in HDI values while others have managed to have some increase in HDI values over this twenty year period**.** Countries that have experienced an increase in HDI values include: Mauritius, Egypt, Comoros, Madagascar, Sudan, Uganda, Rwanda, Malawi, and Ethiopia. Decreases in HDI values have occurred in Swaziland, Kenya, and Zimbabwe. Care should be taken in using HDI trend figures to monitor deterioration or improvement in human development across countries because HDI is a relative measure. The use of different methodologies and lack of comparable data across countries are common limitations on using this index for cross-country wellbeing comparisons.

Figure 7: Human Development Index in COMESA member states, 1985–2005



Source: UNDP 2007

Table 5: Human Development Index and its components in the COMESA countries

HDI rank	Country	(HDI) value 2005	Life expectancy at birth (years) 2005	Adult literacy rate (% aged 15 and above) 1995-2005[a]	Life expectancy index	Education index
			HIGH HUMAN DEVELOPMENT			
50	Seychelles	0.843	72.7	91.8	0.795	0.886
56	Libya	0.818	73.4	84.2	0.806	0.875
65	Mauritius	0.804	72.4	84.3	0.790	0.813
			MEDIUM HUMAN DEVELOPMENT			
112	Egypt	0.708	70.7	71.4	0.761	0.732
134	Comoros	0.561	64.1	..	0.651	0.533
141	Swaziland	0.547	40.9	79.6	0.265	0.730
143	Madagascar	0.533	58.4	70.7	0.557	0.670
147	Sudan	0.526	57.4	60.9	0.540	0.531
148	Kenya	0.521	52.1	73.6	0.451	0.693
149	Djibouti	0.516	53.9	..	0.482	0.553
151	Zimbabwe	0.513	40.9	89.4	0.265	0.770
154	Uganda	0.505	49.7	66.8	0.412	0.655
			LOW HUMAN DEVELOPMENT			
157	Eritrea	0.483	56.6	..	0.527	0.521
159	Tanzania	0.467	51.0	69.4	0.434	0.631
161	Rwanda	0.452	45.2	64.9	0.337	0.602
164	Malawi	0.437	46.3	64.1	0.355	0.638
165	Zambia	0.434	40.5	68.0	0.259	0.655
167	Burundi	0.413	48.5	59.3	0.391	0.522
168	DRC	0.411	45.8	67.2	0.346	0.560
169	Ethiopia	0.406	51.8	35.9	0.446	0.380
Developing countries		0.691	66.1	76.6	0.685	0.725
Least developed countries		0.488	54.5	53.9	0.492	0.519
East Asia and the Pacific		0.771	71.7	90.7	0.779	0.836
Latin America and the Caribbean		0.803	72.8	90.3	0.797	0.873
South Asia		0.611	63.8	59.5	0.646	0.598
Sub-Saharan Africa		0.493	49.6	60.3	0.410	0.570
Central and Eastern Europe and the CIS		0.808	68.6	99.0	0.726	0.938
OECD		0.916	78.3	..	0.888	0.912
High-income OECD		0.947	79.4	..	0.906	0.961
World		0.743	68.1	78.6	0.718	0.750

Source: UNDP 2007 (*Human Development Report 2007-2008*)

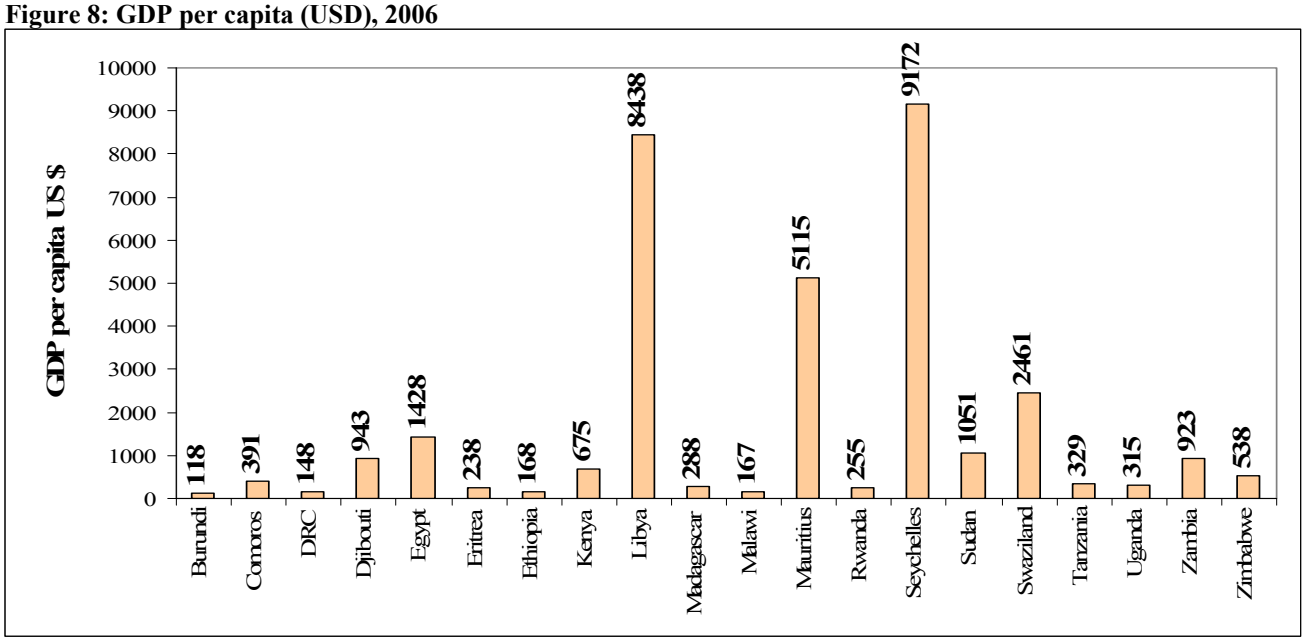
a. Data refer to national literacy estimates from censuses or surveys conducted between 1995 and 2005, unless otherwise specified.

Indicator 6: *Group of GDP related indicators*

Indicator 6.1: *GDP per capita*

Based on the recent statistics, Seychelles, Libya, and Mauritius are leading in the region in terms of GDP per capita (Figure 8). Swaziland, Egypt, Djibouti, and Sudan have medium per capita income while the worst performers as far as this indicator is concerned include Rwanda, Burundi, DRC, Ethiopia, and Malawi.

Figure 8: GDP per capita (USD), 2006



Source: Official United Nations site for the MDGs indicators 2007

Indicator 6.2: *GDP Purchasing Power Parity (PPP) in (US $)*

PPP conversion factor is the number of units of a country's currency required to buy the same amounts of goods and services in the domestic market as a U.S. dollar would buy in the United States. For the purpose of comparing levels of poverty across countries, the World Bank uses estimates of consumption converted to US dollars using PPP rates rather than exchange rates. PPP conversion allows national account aggregates in national currencies to be compared on the basis of the purchasing powers of the currencies in their respective domestic markets free from differences in price levels across countries, much the same way as constant price estimates do in a time series comparison of real values free from differences in prices over time (United Nations 2007). Twelve years of trend of PPP values for the COMESA member states are shown in Table 6 below. The table indicates that Ethiopia, Egypt, Libya, Eritrea, Seychelles, Sudan, and Swaziland have very low PPP values compared to other countries in the region, which might imply the strength of their currencies. Comparing the PPP values for 1997 and that of the year 2008 we observe that some countries have had major increase in PPP values including the DRC, Malawi, and Zambia. Djibouti and Uganda have had the least changes.

Table 6: Implied PPP conversion rate COMESA countries (National currency per current international dollar), 1997–2008

Country	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change 1997–2008
Burundi	184.4	203.2	230.3	255.1	262.7	262.8	287.0	302.8	343.0	347.3	365.8	445.5	141.6
Comoros	193.9	194.6	203.0	205.4	217.9	223.1	229.7	227.8	226.2	223.5	228.9	236.4	21.9
DRC	0.6	0.8	4.3	25.9	122.3	158.7	175.6	181.6	214.3	236.0	270.4	316.2	50,575.6
Djibouti	84.2	85.2	85.7	85.8	85.3	84.4	84.3	84.6	84.7	84.9	86.8	93.0	10.4
Egypt	1.3	1.4	1.3	1.4	1.4	1.4	1.4	1.6	1.6	1.7	1.8	2.0	54.2
Eritrea	1.8	1.9	2.1	2.4	2.7	3.1	3.7	4.4	5.0	5.3	5.6	6.1	237.5
Ethiopia	2.1	2.1	2.1	2.2	2.0	1.9	2.1	2.1	2.3	2.4	2.7	3.4	58.9
Kenya	23.0	24.3	24.9	25.9	25.6	25.4	26.5	28.4	29.5	30.7	31.3	35.0	52.4
Libya	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.4	362.5
Madagascar	349.2	374.5	405.4	426.2	446.6	504.5	507.6	565.4	649.6	701.5	749.2	800.6	129.3
Malawi	7.2	8.8	12.0	15.5	18.8	30.0	32.1	35.2	39.5	47.2	49.4	52.6	629.6
Mauritius	11.4	11.9	12.4	12.6	12.8	13.5	14.0	14.4	14.7	14.9	15.6	16.5	45.1
Rwanda	156.3	158.2	148.2	149.1	147.3	137.4	164.0	179.0	186.2	197.2	212.3	244.0	56.1
Seychelles	2.8	3.1	3.1	3.1	3.2	3.3	3.4	3.4	3.4	3.3	3.5	4.4	55.0
Sudan	0.5	0.6	0.7	0.8	0.8	0.8	0.9	1.0	1.1	1.1	1.2	1.4	152.4
Swaziland	2.3	2.4	2.5	2.7	2.9	3.0	3.2	3.2	3.3	3.5	3.7	4.1	75.0
Tanzania	238.7	269.3	296.1	311.7	320.6	337.4	358.3	378.8	395.6	403.5	428.2	462.0	93.6
Uganda	478.9	532.3	525.0	557.9	569.6	545.4	572.0	592.0	619.6	614.4	641.8	667.8	39.4
Zambia	592.0	699.5	836.8	1,065.0	1,292.8	1,522.9	1,786.6	2,090.1	2,414.8	2,660.9	2,839.3	3,082.4	420.7

Source: International Monetary Fund World Economic Outlook Database April 2009

Indicator 7: *Human Poverty Index (HPI-1)*

The HPI-1, a composite index measuring deprivations in the three basic dimensions captured in the HDI, indicates that poverty is high in the majority of the COMESA countries. The 2008 update of Human Development indices shows that several countries in the region are close to the bottom of the HPI ranking (UNDP 2008). More than half of the COMESA member states (Ethiopia, Zambia, Sudan, Malawi, Eritrea, Rwanda, Burundi, Madagascar, DRC, Zimbabwe, and Swaziland) rank above 100 out of the 135 countries (Table 7). Ethiopia has the highest HPI value (54.9%) followed by Zambia (41.8%) and Zimbabwe 40.3%. HPI values for Sudan, Malawi, Eritrea, Rwanda, Uganda, Burundi, Kenya, Zimbabwe, Madagascar, and Swaziland range between 30 to 39 percent. Of all COMESA countries, Mauritius has the lowest HPI value amounting to only 9.7 percent (Table 7).

Indicator 8: *Population below income poverty line*

Other indicators of poverty, such as population below income poverty line (1 dollar, 2 dollars, and national poverty line) also indicate that poverty is persistent in the COMESA countries. Based on the recent national poverty line estimate between 1990-2007 it is noted that high poverty levels have been recorded in more than sixty percent of the population in DRC, Madagascar, Malawi, Zambia, Swaziland, Burundi, and Rwanda. In Eritrea and Kenya a half of the population was below the poverty line. In all other countries, except Egypt, at least a third of the population was poor (Table 7).

Table 7: Poverty index in the COMESA countries (2007–2008)

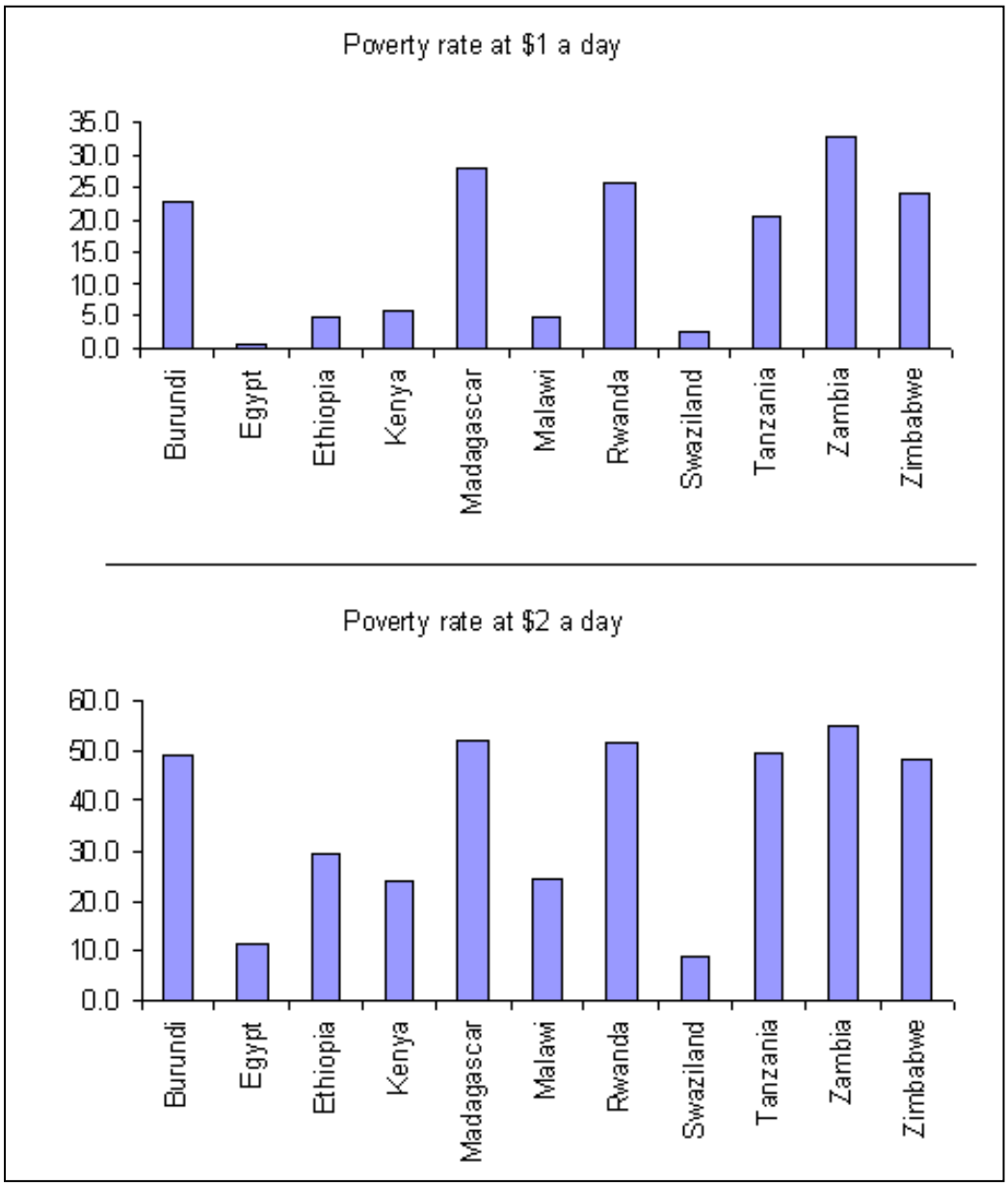
	Human poverty index (HPL-1) 2007-2008		Population below poverty line (%)		
Countries	Rank	Value (%)	$1 a day 1990-2005	$2 a day 2000-2006 [a]	National poverty line 1990-2007 [a]
Burundi	114	37.8	54.6	93.4	68
Comoros	77	21.2		65	-
DRC	115	39.3		79.5	71.3
Djibouti	85	26.5		41.2	-
Egypt	73	20	63.1	18.4	16.7
Eritrea	105	35.9	-	-	53
Ethiopia	130	51.6	23	77.5	44.2
Kenya	91	31.4	22.8	39.9	52
Libya	60	13.6		-	-
Madagascar	107	36.6	61	89.6	71.3
Malawi	102	34.4	20.8	90.4	65.3
Mauritius	45	9.7	57.8	-	10.6
Rwanda	113	37.3	60.3	90.3	60.3
Sudan	101	34.3		-	-
Swaziland	104	35.5	47.7	81	69.2
Tanzania	98	32.9	57.8	96.6	35.7
Uganda	94	32.2		75.6	37.7
Zambia	124	41.8	63.8	81.5	68
Zimbabwe	117	40.3	56.1	-	34.9

Sources: UNDP, 2007, *Human Development Report 2007-2008;* UNDP, 2008
Note a refers to the most recent year available during the period specified.

Indicator 9: *Poverty gap*

Poverty gap data provides information on how much poorer the poor people are relative to the poverty line. This is also known as the intensity or depth of poverty. It can be used to estimate the minimum amount of resources necessary to eradicate poverty, given perfect targeting. Figure 9, shows the percent of the population below the National Poverty Line based on $1 and $2 a day respectively for the COMESA countries.

Figure 9: Poverty gap in some COMESA countries 1988–2004



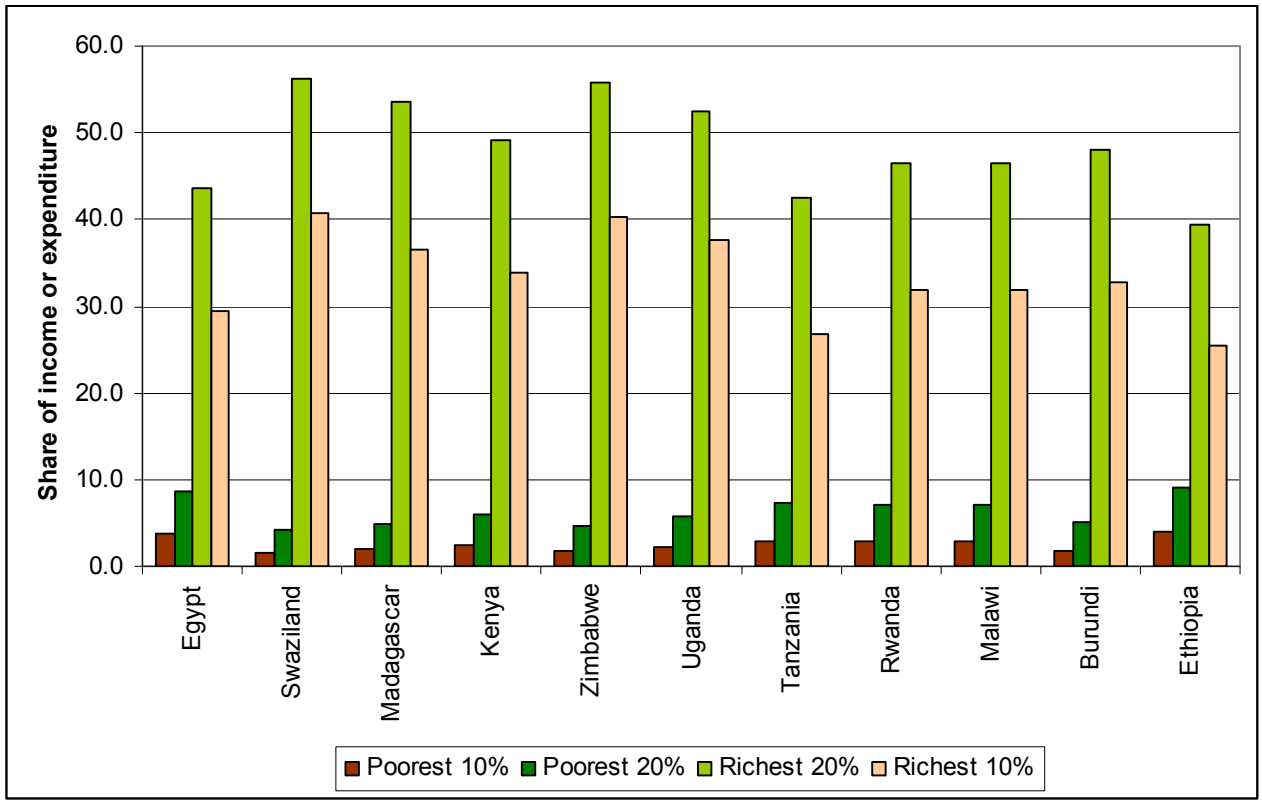
Source: Development Data Group The World Bank 2007

Indicator 10: *Share of income or expenditure*

Percentage share of income or consumption is the share that accrues to subgroups of the population indicated by deciles or quintiles. This is an indicator that can be used to assess levels of economic equality within a country. It looks at the poorest quartile's share in national income or consumption. Inequality in the distribution of income is reflected in the percentage shares of income or consumption accruing to portions of the population ranked by income or consumption levels. The portions ranked lowest by personal income receive the smallest shares of total income. Data on the distribution of income or consumption come from nationally representative household surveys. Where the original data from the household surveys are available, they can be used to directly calculate the income or consumption shares by quintile. Otherwise, shares have been estimated from the best available grouped data (UNDP, 2007).

Figure 10, indicates the share of income or expenditure (for countries for which the data is available). From this figure it is evident that there is a high level of inequality in most COMESA countries, as a large share of the total income (more than 40% in all countries) is held by the richest 20% of the population.

Figure 10: Share of income or expenditure



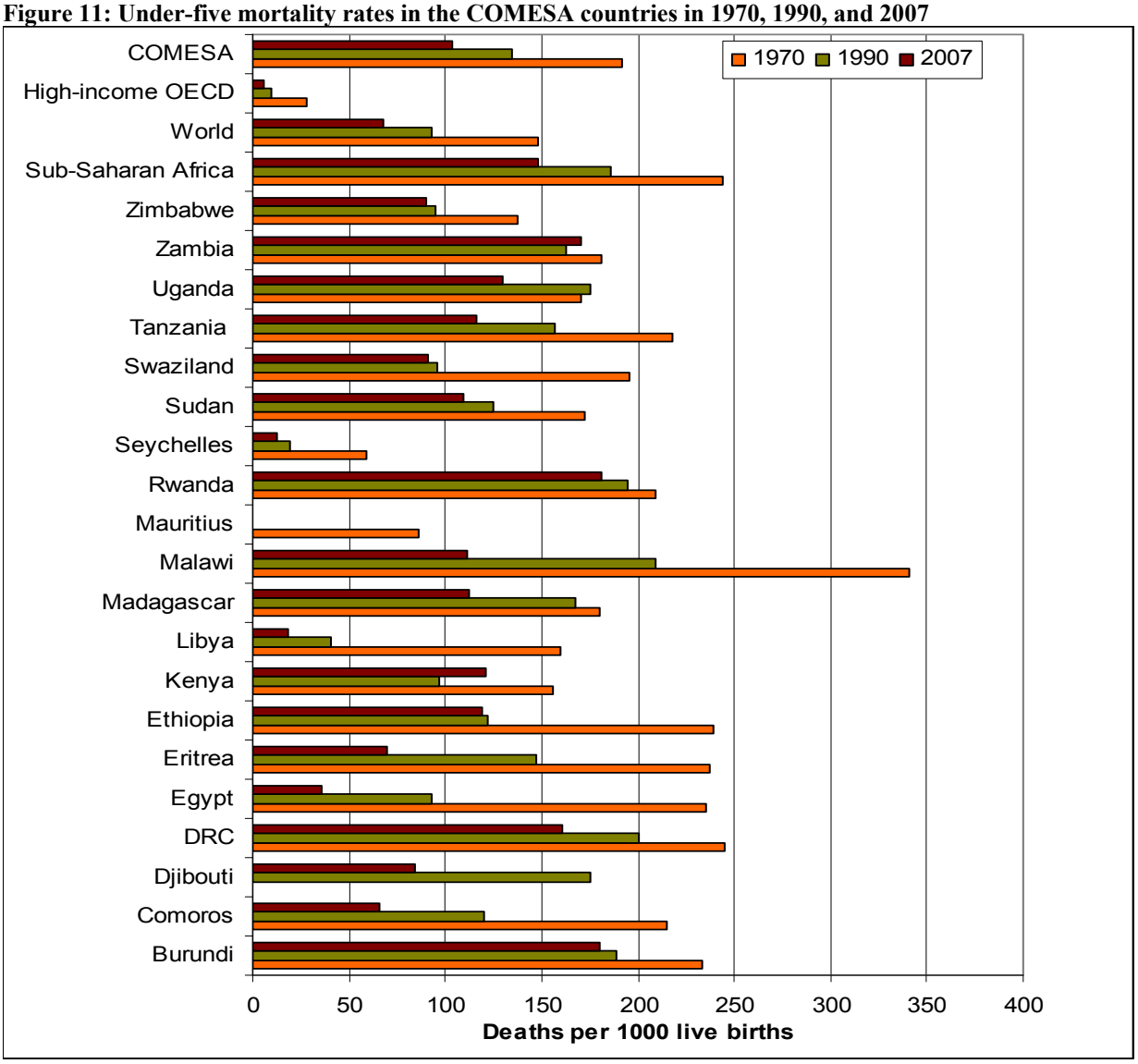
Note: other COMESA countries did not have data
Source: UNDP, 2007

Indicator 11: *Under-five mortality rate*

Trend data on under-five mortality rates from 1970 to 2007 indicates that at the regional level, COMESA has successfully managed to reduce mortality rates of children under the age of five by 46% compared to the 1970s. It declined from an average of 192 deaths per thousand live births in 1975 to 103 deaths per 1000 live births in 2007. This can be attributed to improvement in maternal and child care in most of the countries in the region. Despite this decrease, mortality rates in the region are still higher than the world's average (98 deaths/1000 live births) and seventeen times higher than that of industrialized countries (only 6 deaths/1000 live births in 2007)-(UNICEF,2008). In other words, this means that 103 children out of every one thousand children born in the COMESA region will not live to see their fifth birthday while in the industrialized countries the figure only stands at six children. This indicates the need for comprehensive interventions to reduce under-five mortality rates in the region. Measures to address food insecurity are some of the interventions that may help reduce under-five mortality as it has been observed that food insecurity causes malnutrition and deaths of children in the region.

There is high heterogeneity among the COMESA countries as far as changes in the under-five mortality rate statistics are concerned. Some countries have attained a very high rate of decrease in mortality rates while others have had very low improvements. Countries that have had high decreases include Egypt (85%), Mauritius (83% based on data for the year 2005, no data for 2007), Seychelles (78%), Comoros (69%), and Eritrea (70%). Low rates of decrease occurred in Zambia (6%), Rwanda (13%), Kenya (22%), Burundi (23%) and Uganda (24%) (see Figure 11).

Figure 11: Under-five mortality rates in the COMESA countries in 1970, 1990, and 2007



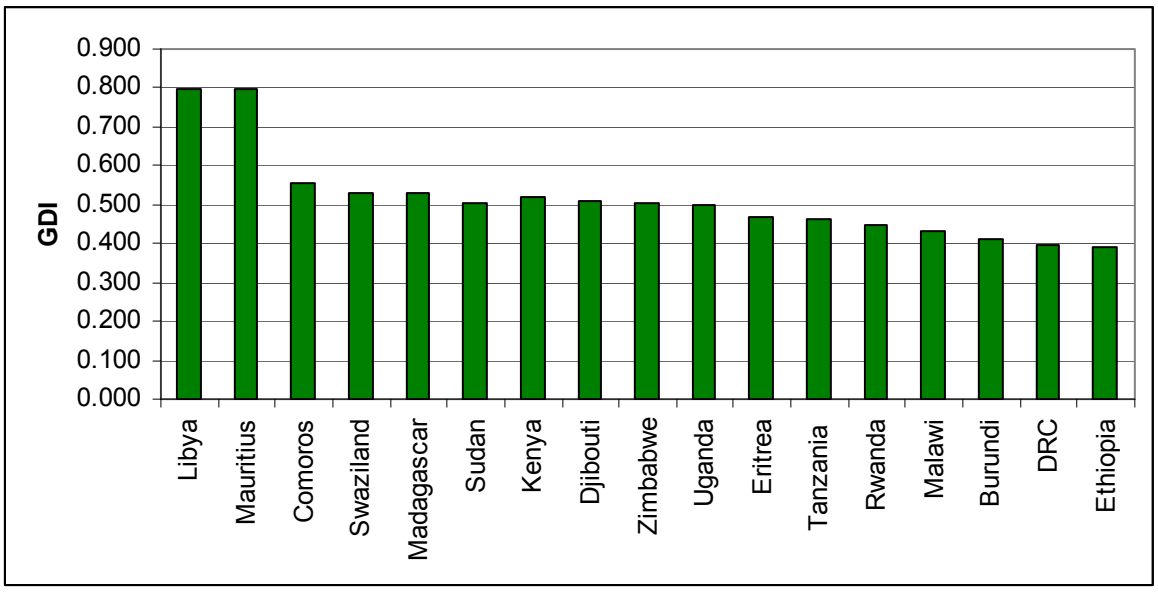
Source: UNDP 2007, UNICEF, 2008

3. Gender Empowerment and Democracy in COMESA

Indicator 1: *Gender Development Index (GDI)*

The Gender Development Index (GDI) is an index designed to measure the extent to which a country is performing as far as equality between men and women is concerned. Similar to HDI, GDI ranges from 0 to 1, with lower values indicating poor performance in the equality between males and females and vice versa. The Human Development Report 2007-2008 indicates that two countries fall under the category of high development, these are Seychelles (with GDI values=0.797) and Mauritius (GDI=0.796). Eight countries (Egypt, Swaziland, Madagascar, Sudan, Kenya, Djibouti, and Zimbabwe) are in the category of medium development, while the low development category is comprised of Eritrea, Rwanda, Malawi, Zambia, Burundi, Congo DRC, Ethiopia, and Tanzania (Figure 12).

Figure 12: Gender Development Index (2007-2008) in the COMESA countries

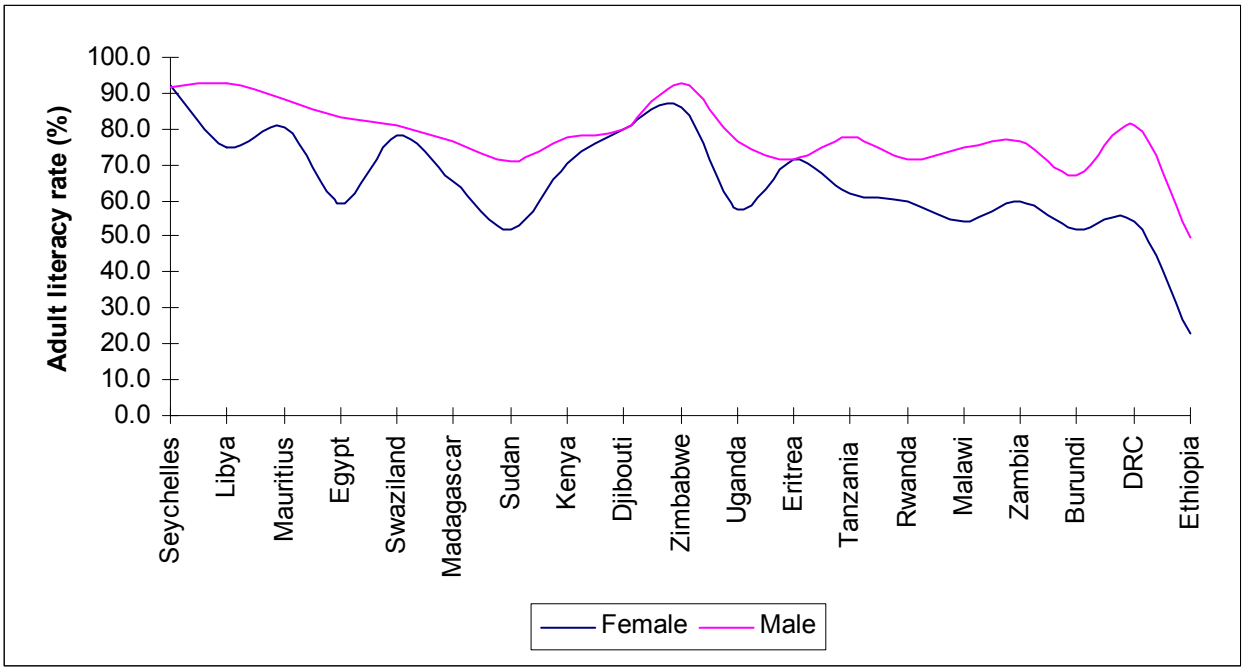


Source: UNDP 2007

Indicator 2: *Literacy rates—Male vs. Female (%)*

In all COMESA member states except for Djibouti and Eritrea, which lack reliable data, literacy rates (in percentage) for males in year 2007-2008 was higher than that of females (Figure 13). This might be a factor contributing to the likelihood of having more males with professional careers than women in the region.

Figure 13: Comparison of literacy rates between males and females in the COMESA countries

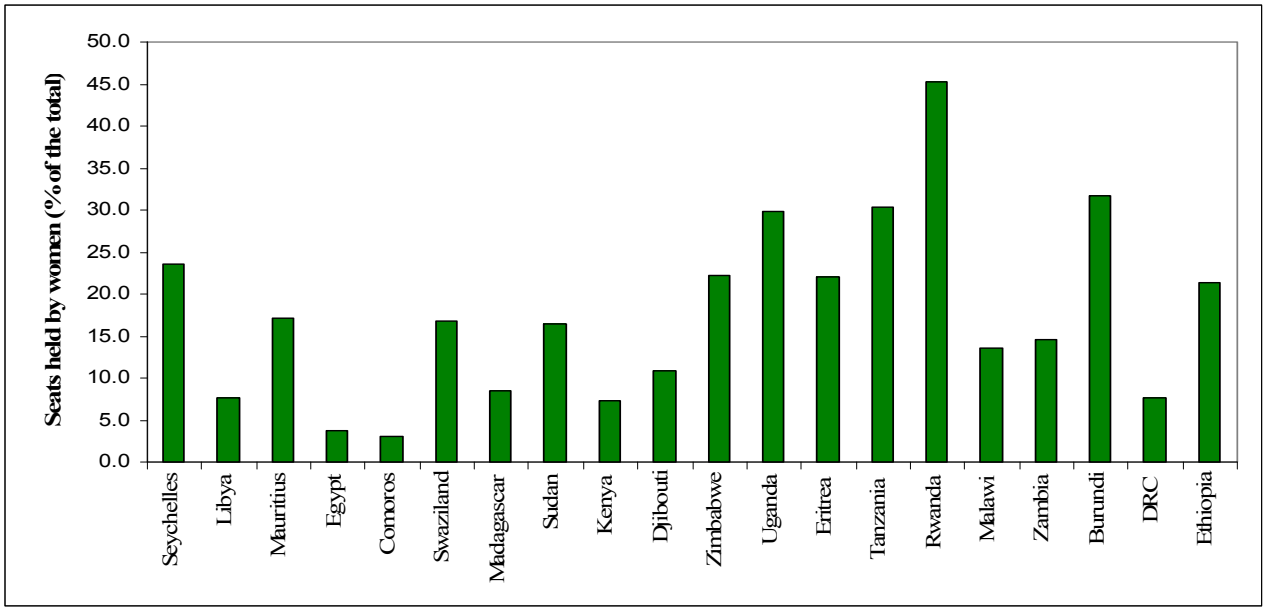


Source: UNDP 2007

Indicator 3: *Parliamentary seats held by women (% of the total)*

Figure 14, indicates the percentage of parliamentary seats held by women out of the total seats as of May 31, 2007 based on the Human Development report 2007-2008. Rwanda is the best performer as far as this indicator is concerned, as close to a half (45.3 percent) of the parliamentarian are women. Other countries doing relatively well are Burundi (31.7 %), Tanzania (30.4%) and Uganda (29.8%), where about a third of the seats are held by female members of parliament. Comoros, Egypt, Libya, DRC, and Kenya are the worst performers here, as female members of parliament are less than 10% of the total.

Figure 14: Parliamentary seats held by women (% of the total) as of May 31, 2007



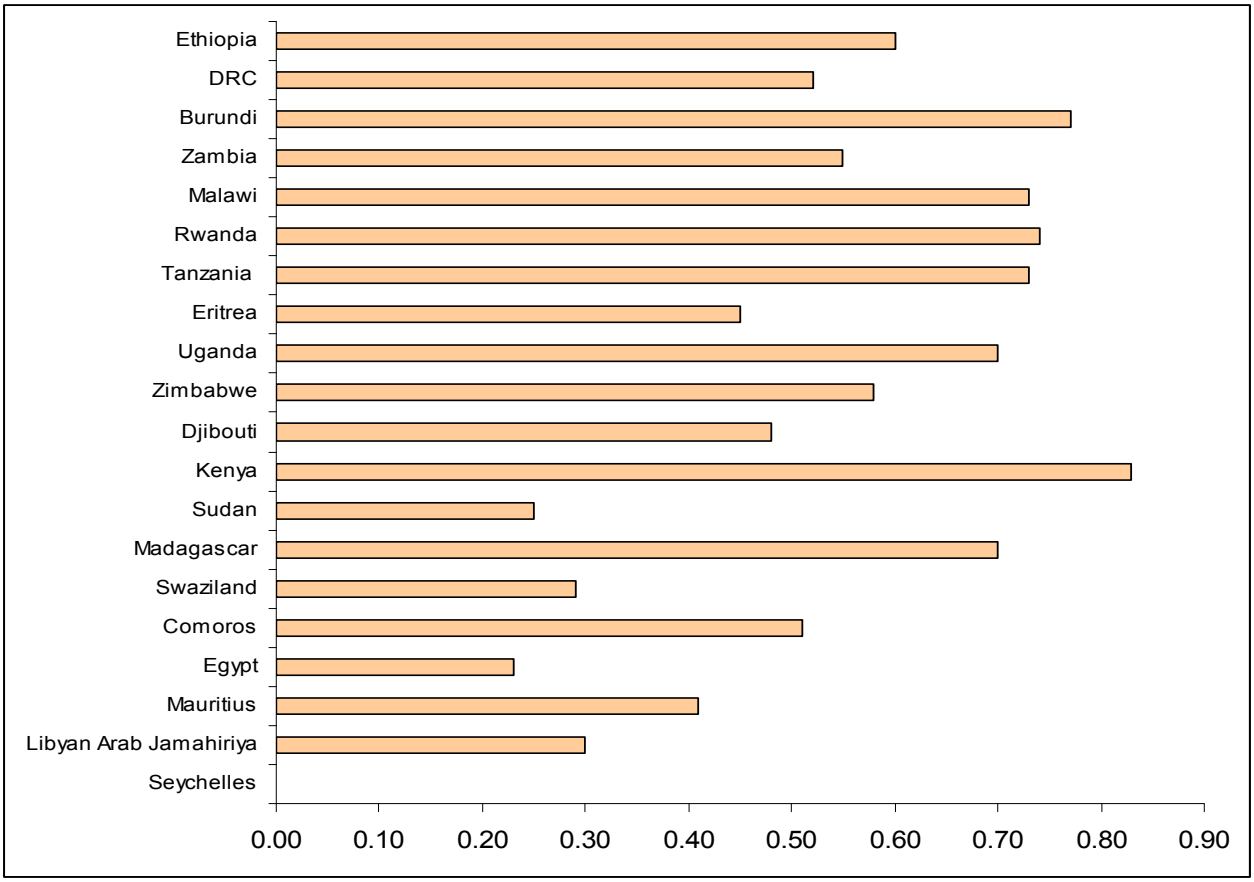
Source: UNDP 2007

Indicator 4: *Ratio of estimated female to male earned income*

This indicator measures the degree of comparability between females' and males' incomes. Figure 15, is based on data from the HDR 2007-2008. In the report, this ratio is calculated by dividing the estimated earned income (PPP US$) for females over that of males. Such computations result into 1, where the income of the two sexes are equal. Values greater than 1 can indicate that females' incomes are greater than that of males and vice versa. Because of the lack of gender-disaggregated income data, females' and males' earned income are crudely estimated on the basis of data on the ratio of the female nonagricultural wage to the male nonagricultural wage, the female and male shares of the economically active population, the total female and male population, and GDP per capita in PPP US$. The wage ratios used in this calculation are based on data for the most recent year available between 1996 and 2005 (World Bank 2007).

In all COMESA countries women have lower income than males, hence there is no any country with values greater than one. Kenya is the best performer as far as this indicator is concerned. It has a ratio of 0.83, which is closer to 1 implying that there is a relatively high degree of equality in the incomes between females and males (Figure 15). Countries with the lowest ratio in the region include Egypt (0.23), Sudan (0.25), and Libya (0.30). This is probably because for cultural reasons females in these countries tend to be less likely to be involved in wage earning jobs.

Figure 15: Ratio of estimated female to male earned income based on Human Development Report 2007–2008

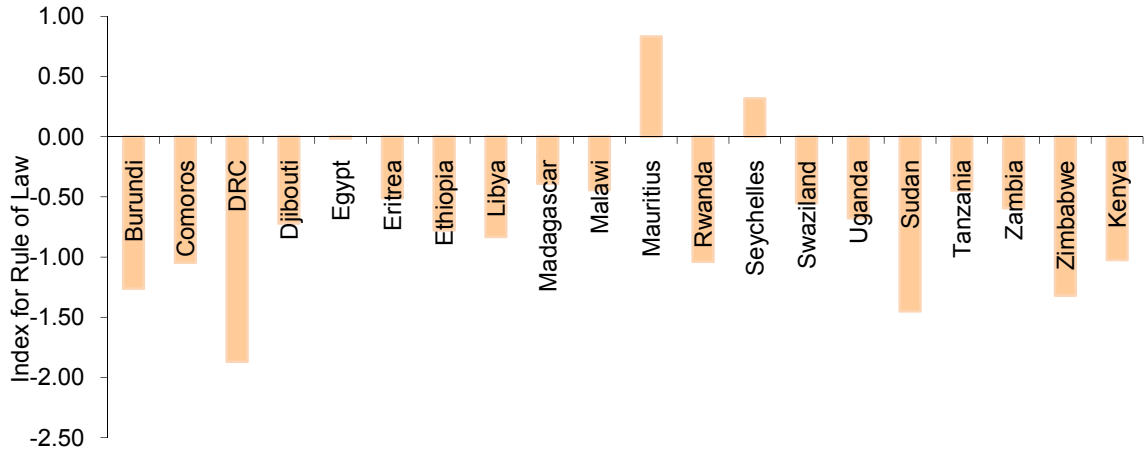


Source: UNDP 2007

Indicator 5: *Governance*

Governance indicators range from -2.5 to 2.5, with positive indicators showing better governance. The rule of law and concern for public voice and accountability in resource use are critical indicators for good governance (Kaufmann et al 2007). Between 1996 and 2006, the application of the rule of law was very poor in all COMESA countries, except Mauritius and Seychelles (Figure 16). The Democratic Republic of Congo (DRC) had the worst case of neglect of the rule of law (index of -1.87), while Mauritius was relatively the best governed country (index of 0.32).

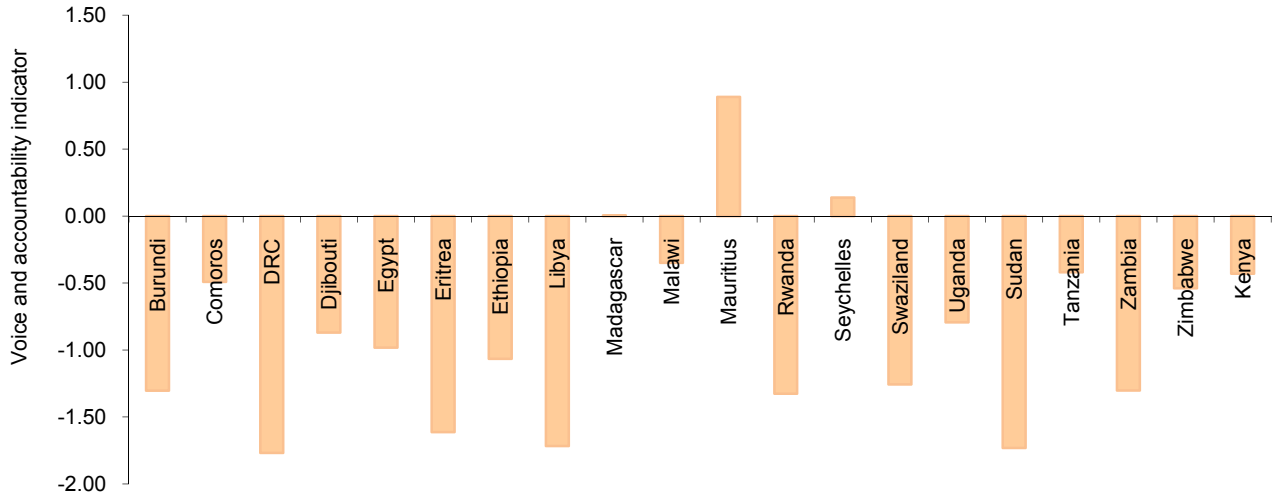
Figure 16: Rule of law indices for COMESA countries, 1996–2006



Source: Kaufmann et al 2007

Similar to rule of law measurements, Mauritius and Seychelles have relatively better indices for respect for public voice and accountability in economic management (they both have positive indices). The best performer, Mauritius, has an index of 0.89 on this indicator. The rest of COMESA member states have negative indices. Again, the DRC is the poorest performer as was the case with governance. Its score on accountability to people in the reporting period was -1.77 (Figure 17).

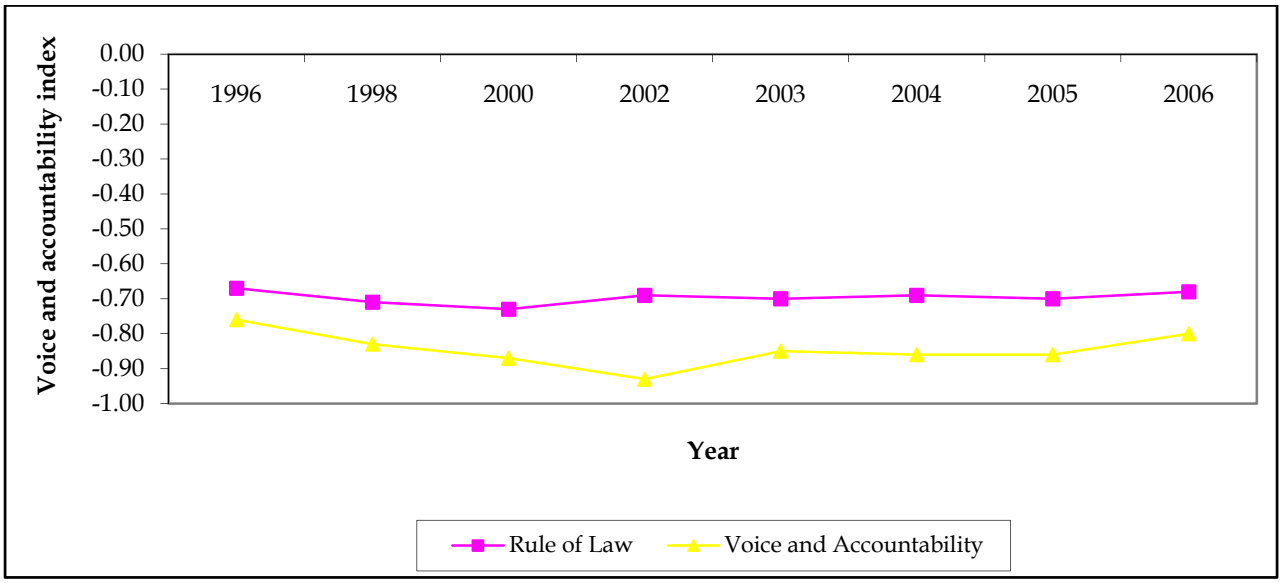
Figure 17: Voice and accountability in COMESA member states, 1996–2006



Source: Kaufmann et al 2007

In general, the indices for both rule of law and accountability were negative. Trend analysis further shows that there is limited regard for public voice and accountability compared to the exercise of rule of law (Figure 18). The average index for rule of law in the region over this period was -0.69, while the mean voice and accountability index was -0.85.

Figure 18: Trends in average indices for rule of law and accountability in COMESA region, 1996–2006



Source: Kaufmann et al 2007

4. Food Security, Hunger, and Food Aid in COMESA

4.1 Food security in COMESA

Food security is defined as "a situation that exists when people, at all times, have physical, social and economic access to sufficient, safe, and nutritious food that meets dietary needs and food preferences for an active and healthy life" (Republic of Kenya 2006a). Food insecurity is a serious problem in many COMESA member states (Figure 19, Box 1). Although, there are a few generally food secure member countries, there are some specific periods where such countries also become food insecure. Furthermore, even for the relatively food secure countries, there are some parts within those countries that are chronically food insecure, Northern Uganda, Northern Kenya and Bugesera region in Rwanda are examples of such areas (Table 8).

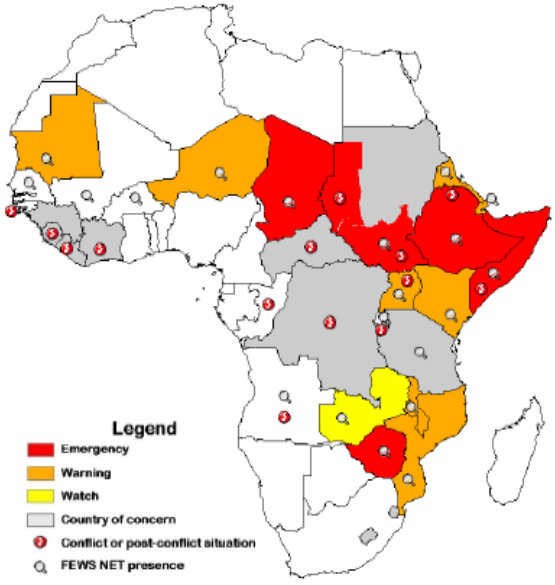
Several factors contribute to food insecurity in COMESA including: a) poverty, b) extreme weather conditions such as rainfall delays or rainfall failure (droughts) coupled with very little or no investment on irrigation, c) floods, d) other natural disasters such as landslides, pest and diseases, earthquakes, fire, and so on e) political instability and civil wars, and f) poor policies, among others. There are a number of indicators portraying the manifestations of food insecurity in the region such as: i) lower level of calorie intake compared to the standard level of 2100 kilo calories per person per day, ii) undernourishment, iii) malnutrition, and iv) high requirement for food aid. In this section we provide an overview of the food security status in the COMESA region using various indicators and data from different sources.

Table 8: Food security threats in some COMESA countries in November 2005

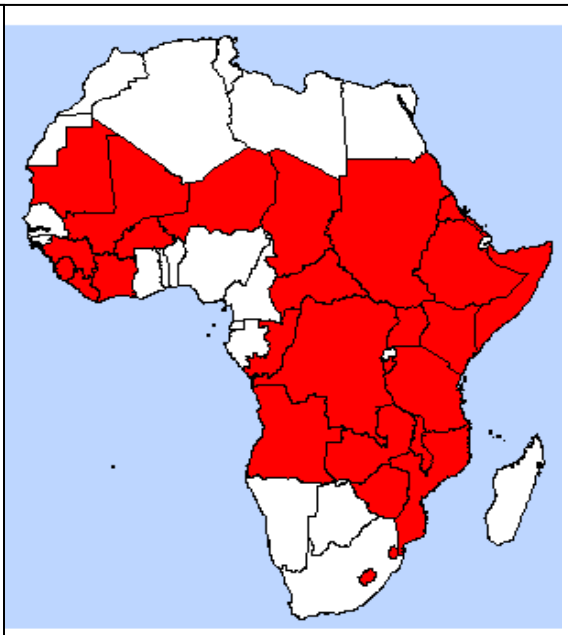
Country	Population at risk (Millions)	Food aid Beneficiaries (Millions)	Description of the situation
Djibouti	0.15	0.1	Poor October-November rains contributed to increased severe dry season in pastoral areas, resulting in higher levels of food insecurity until March 2006
Eritrea	2.2	1.3-1.4	Food security was expected to improve, but the need for humanitarian assistance was expected to continue in 2006
Ethiopia	8-9	8.2 (PSNP + emergency)	
Kenya	1.2	1.2	Food security is deteriorating for farmers in the southern and coastal lowlands and pastoralists in the northeast. In the northeast, late rains and declining terms of trade accompany rising child malnutrition rates and growing tensions over scarce resources.
Malawi	4.2-4.6	4.2	Food security conditions have deteriorated amid very high prices, particularly in the heavily market dependent south. However, subsidized sales have increased and imports from Tanzania are picking up.
Uganda	2.1	2.1	Following the good harvest, general food aid distributions have ended in Karamoja. Mortality rates in northern Uganda's IDP camps remain a concern.
Zimbabwe	2.9-4.9	Not available	
Sudan (southern)			The Sept.-Oct. harvest provided a temporary improvement in food security. However, due to crop losses, the early consumption of some crops and the anticipated rate of refugee resettlement, some areas will face high levels of food insecurity in the year 2006.

Source: FEWSNET 2005

Figure 19: Maps on food security: Food Security situation in some African countries in November 2005 (left) and countries requiring urgent external food assistance in year 2005 (right).



Source: FEWSNET 2005



Source: FAO/GIEWS 2005

Box 1: Food security situation in some COMESA countries (1992–94 to 2004)

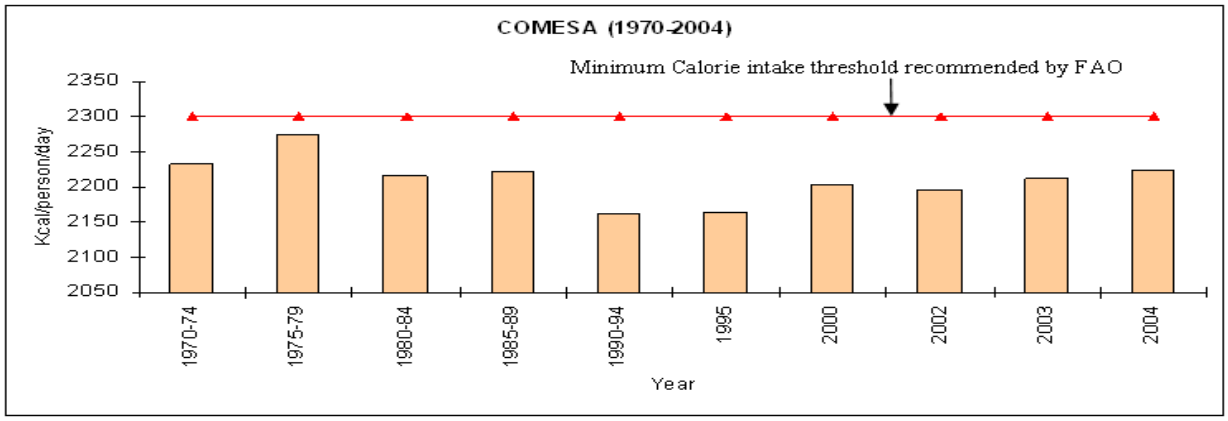
The Democratic Republic of Congo is one of the most vulnerable countries in the world with respect to food security. Per capita calorie consumption was 1600 in 2002. Between 1992 and 2004, grain production fell due to political instability which disrupted agricultural activities. Ethiopia is also one of the most vulnerable countries in Sub-Saharan Africa. Following the end of the civil war in 1992 and the return of farmers to their land, grain production expanded rapidly by 5.4 percent per year. However, production would have to grow by over 7 percent in order to cut hunger in half by 2015. Import accounts for only a small share of Ethiopia's food supplies and most imports are in the form of food aid. In Tanzania, the country's per capita food consumption declined by almost 1 percent per year from 1992 through 2004. Grain production growth of 1.5 percent per year was not sufficient to offset high population growth. The situation in Madagascar was nearly identical, only population growth was even higher at nearly 3 percent per year and production was slightly lower. In Zambia, a decline in area growth and stagnant yields led to slow decline in grain output between 1992 and 2004. Grain output needed to exceed 2 percent per year to move towards the WFS goal. Imports declined by more than 2 percent annually, so meeting the goal with higher imports was not realistic.

Source: USDA, Economic Research Service 2006

Indicator 1: *Calorie intake*

The average calorie consumption in the COMESA countries (Tanzania not included) in the period 1970-2004 has been fluctuating. The peak consumption was recorded in 1975-1979 (with the average of 2275 Kcal/person/day), while the period 1990-1994 had the lowest amount (2162 Kcal/person/day), followed closely by the year 1995 (2163 Kcal/person/day). Some slight improvements were observed in the year 2004, as the average calorie consumption for the region was 2222.895 Kcal/person/day. Throughout this period the regional average calorie consumption has been lower than the FAO recommended threshold of 2300Kilocalories/person/day (Figure 20).

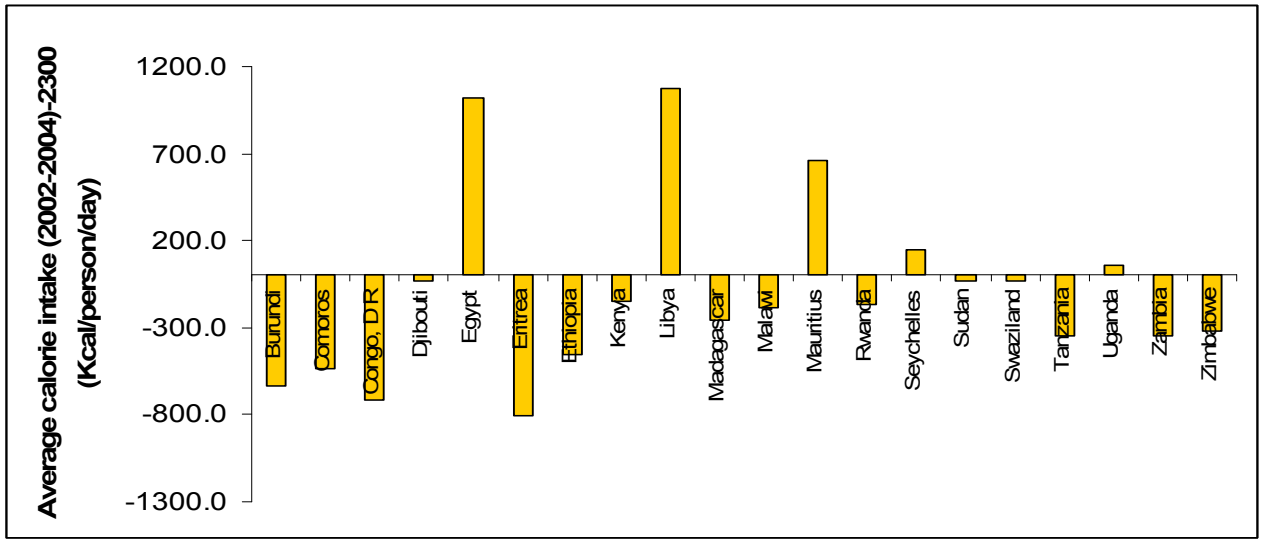
Figure 20: Average calorie consumption (Kcal/person/day) in the COMESA region, 1970–2004)



Source: AfDB 2007

Country level consumption data for the period between 2002 and 2004 indicate some differences within the region. Only a few countries (Egypt, Libya, Mauritius, Seychelles, and Uganda) consumed more than the recommended amount of calories. The rest of the COMESA countries did not meet this threshold. Burundi, Eritrea, Congo DRC, Comoros, and Ethiopia had the highest deficit in calorie intake (Figure 21).

Figure 21: Difference between the required calorie intake and the average calorie intake in COMESA countries (2002–2004)



Source: AfDB 2007

A synthesis by FAO that used trend data for the period between 1990 and 2002 indicates that Djibouti, Ethiopia, Malawi, and Kenya had the highest increase in annual growth rate of daily calorie intake, however these countries still consumed less than 2300 cal/caput in 2002. Uganda had the highest increase and also exceeded this threshold in the same period. Some COMESA countries (Eritrea, Comoros, Burundi, and DRC) experienced major decreases in calorie consumption in the period between 1990 and 2002 (Table 9).

Table 9: Trends in Calorie Consumption in COMESA countries (1961–2002)

Percentage annual growth rate of daily intake per caput (period average)	Period 1961–1990		Period 1990–2002	
	Less than 2300 cal/caput in 1990	More than 2300 cal/caput in 1990	Less than 2300 cal/caput in 2002	More than 2300 cal/caput in 2002
Highest increase more than 0.5 percent p.a.	Djibouti, Sudan	Mauritius	Djibouti, Ethiopia, Malawi, Kenya	Uganda
Some increase less than 0.5 percent p.a.	Tanzania	Swaziland	Zimbabwe, Sudan	Mauritius
Some decrease less than 0.5 p.a	Ethiopia, Rwanda, Comoros, Kenya, Malawi, Eritrea, Zimbabwe, Zambia	Uganda	Madagascar, Zambia, Tanzania, Rwanda	Swaziland
Major decrease more than 0.5 p.a	Madagascar, DR Congo		Eritrea,Comoros, Burundi, DR Congo	

Source: FAO 2006b

* p.a: per annum; **in each cell, countries are ranked by decreasing level of calorie intake

Indicator 2: *Malnutrition*

Food insecurity and hunger contributes highly to malnutrition in the COMESA region. Malnutrition is the condition of being weak or sick because of not eating rightly (lack of balanced diet) or not having enough food. This can happen due to not eating enough food of any kind, referred to as "undernutrition," not eating the right kinds of foods which can lead to specific types of malnutrition, or from eating too much of certain foods making one fat but lacking certain important nutrients. A population might be doing well in meeting the minimum required energy calories per person but still suffer from malnutrition if people are not taking in all the nutrients required for proper body maintenance. Malnutrition is one of the causes for high mortality rates of children under the age of five in the COMESA region, for adults it is known to have negative impacts on productivity. Most recently available data indicate that more than 30% of children under the age of five suffer from being underweight in a number of countries including: Burundi, DRC, Madagascar, Sudan, Eritrea, and Ethiopia (Table 10). Data presented in this table also indicate that children stunting and population undernourishment are also common problems in most of the COMESA countries. Figure 22 provides a geographical distribution of malnutrition in the COMESA region. The map indicates that at least 10% of children under the age of five are malnourished in all countries except Libya and Egypt. With such figures it is indeed hard to provide tangible evidence on the progress being made towards achieving the MDG-1 goal of ending hunger and poverty. Ironically, by 2006, Sudan, Ethiopia, Uganda, Zambia, Malawi, Zimbabwe, and Madagascar had not made any progress towards achieving this goal, in fact a deteriorating situation could be observed in some of these countries (UNICEF 2006). This analysis showed that Djbouti seems to be on track in achieving this goal while Eritrea, Egypt, and Kenya have been making some progress. However, the report indicated that the levels of progress seem to be insufficient (Figure 23).

Table 10: Malnutrition in children and population undernourished in the COMESA region

Countries	% of under-fives (2000–2007*) suffering from: underweight† (NCHS/WHO): moderate & severe	% of under-fives (2000–2007*) suffering from: wasting (NCHS/WHO): moderate & severe	% of under-fives (2000–2007*) suffering from: stunting (NCHS/WHO): moderate & severe	Population undernourished (% of total population) 1990/92	Population undernourished (% of total population) 2002/04
Burundi	39	5	53	48	66
Comoros	25	8	44	47	60
DRC	31	13	38	31	74
Djibouti	29	21	33	53	24
Egypt	6	4	18	4	4
Eritrea	40	13	38	70	75
Ethiopia	38	11	47	69	46
Kenya	20	6	30	39	31
Libya	5	3	15	<2.5	<20.5
Madagascar	42	13	48	35	38
Malawi	21	4	46	50	35
Rwanda	23	4	45	43	33
Seychelles	-	-	-	7	<2.5
Sudan	41	16	43	31	26
Swaziland	7	7	24	14	22
Tanzania	22	3	38	37	44
Uganda	20	5	32	24	19
Zambia	19	5	39	48	46
Zimbabwe	17	6	29	45	47

Source: UNICEF 2006, UNICEF 2008 on www.unicef.org

Figure 22: Proportion of children under 5 with moderate and severe malnutrition, 1996–2005

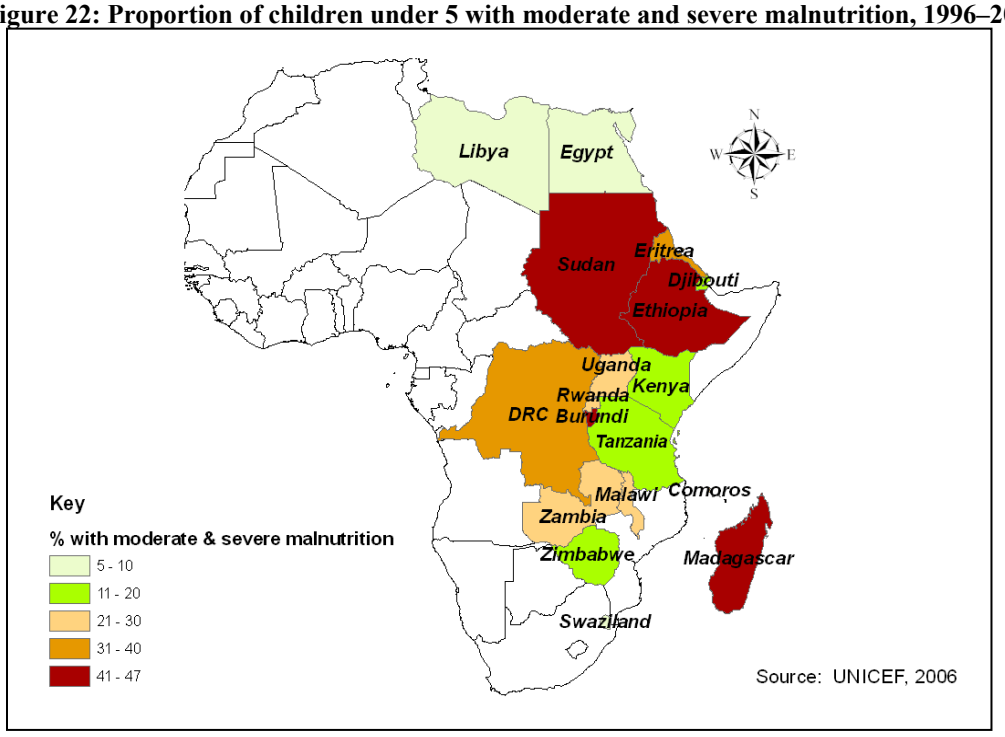
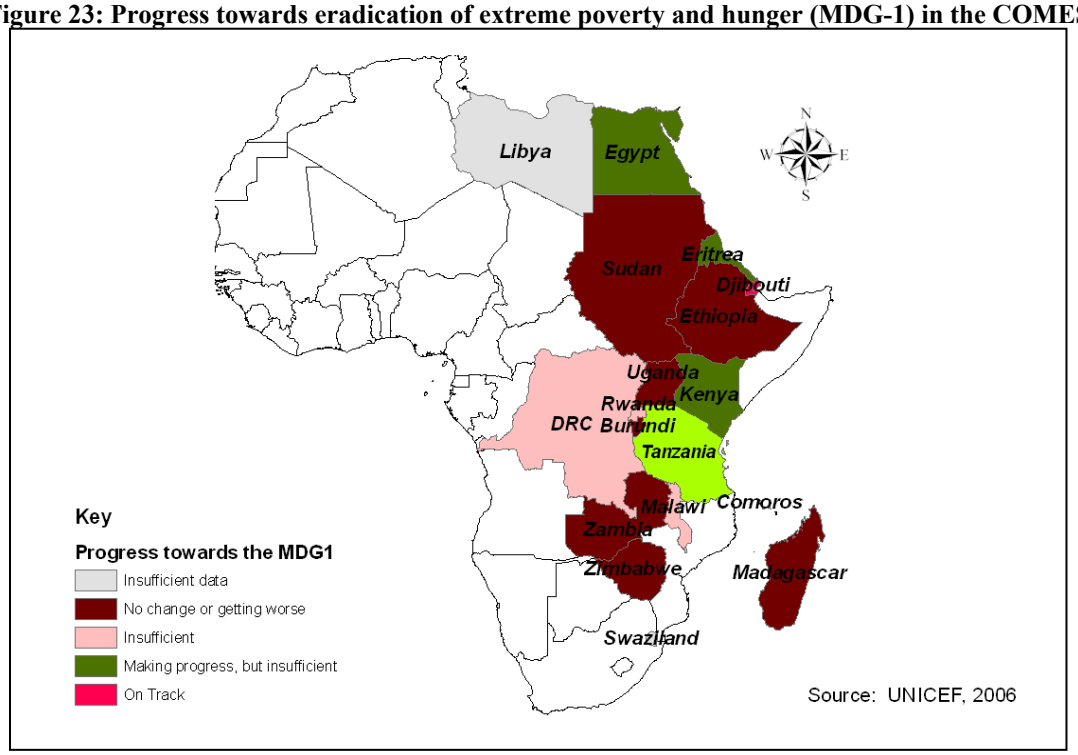


Figure 23: Progress towards eradication of extreme poverty and hunger (MDG-1) in the COMESA countries



Source: Maps in figures 22 and 23 have been developed by ILRI based on data from UNICEF 2006

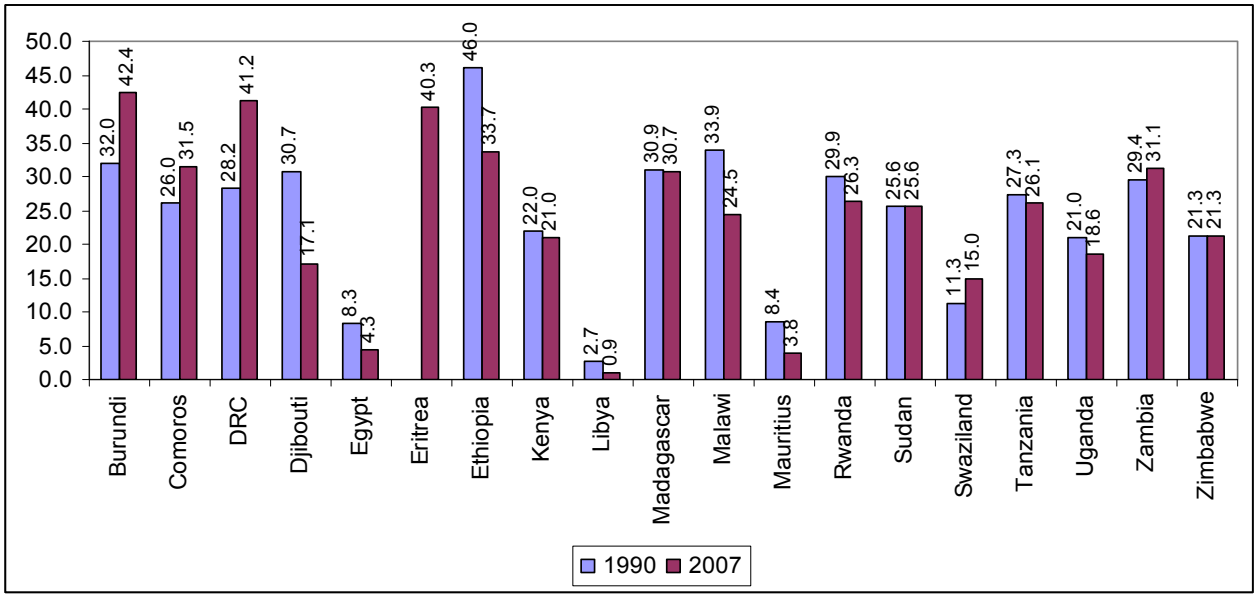
Indicator 3: *Global Hunger Index*

A Global Hunger Index has recently been developed by Welt Hunger Hilfe and IFPRI as a way to have a scientifically sound index that is generated by data available for as many developing countries and countries in transition as possible. The logic behind the development of this index lies in the fact that, hunger has many faces so it is not sufficient for an index measuring hunger to only capture food availability. Hence, there is a need to also take into account direct consequences of hunger, such as shortfalls in nutritional status and reduced chances of survival (Welt Hunger Hilfe and IFPRI 2006). The index is based on three equally weighted indicators: i) the proportion of undernourished as a percentage of the population (reflecting the share of the population with insufficient dietary intake), ii) the prevalence of underweight children under the age of five (indicating the proportion of children suffering from weight loss and/or reduced growth), and iii) the under-five mortality rate (partially reflecting the fatal synergy between inadequate dietary intake and unhealthy environment). All three index components of GHI are expressed as percentages and were aggregated based on equal weighting (Welt Hunger Hilfe and IFPRI 2006). The GHI varies between the best possible score of 0 and the worst possible score of 100. Higher scores indicate greater hunger which implies that the lower the score, the better the country's situation. GHI scores above 10 are considered serious. Scores greater than 20 are alarming and scores exceeding 30 are extremely alarming.

From the GHI figures for the year 2007 (Figure 24), it is clear that hunger is still a serious problem in the region. Thirteen countries (Burundi, Comoros, DRC, Eritrea, Ethiopia, Kenya, Madagascar, and Malawi) have GHI values greater than 20, indicating alarming and extremely alarming

hunger. Although relatively food secure compared with other countries in the region, Djibouti, Uganda, and Swaziland fall under the category of countries experiencing serious hunger situations (Figure 24). This calls for major efforts to fight hunger in COMESA if MDG 1 is to be achieved.

Figure 24: GHI trends from 1990 to 2007 by country in the COMESA



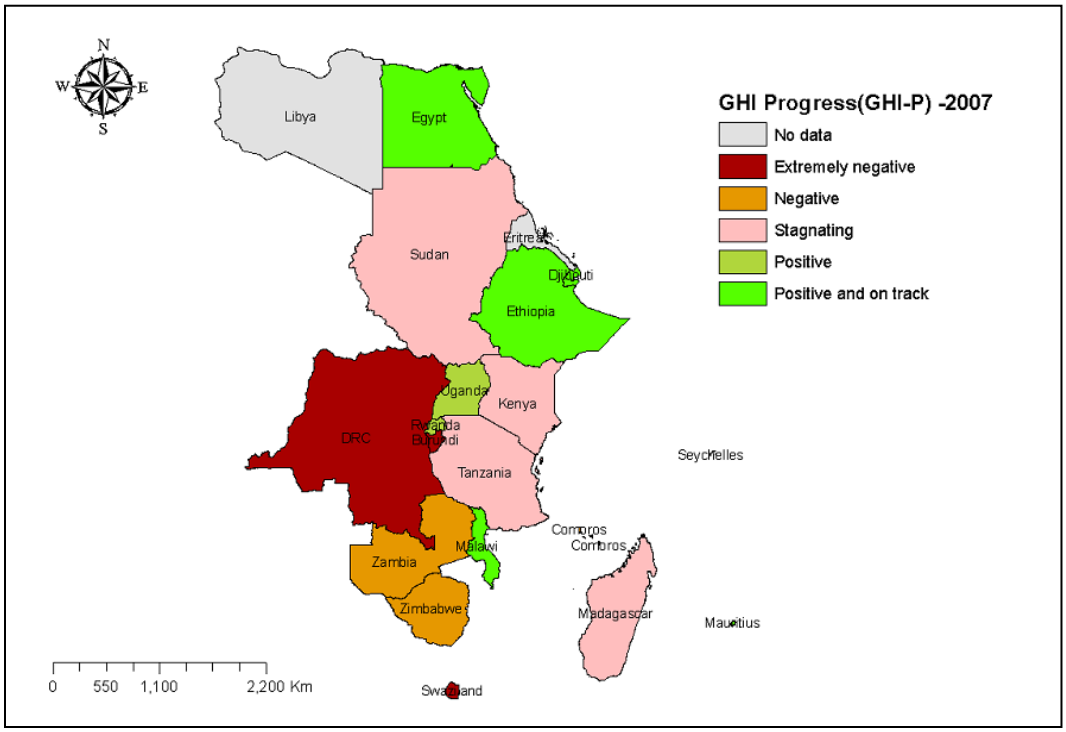
Source: Welt Hunger Hilfe and IFPRI 2006

Comparing the GHI for years 1990 and 2007, it is noted that some countries in the region have had an increase in the GHI values while others have had lower values than before. Increasing trends in GHI values were experienced in DRC, Burundi, Swaziland, Comoros, and Zambia. Decreasing trends were observed in Djibouti, Ethiopia, Malawi, Mauritius, Uganda, Egypt, Rwanda, Kenya, Tanzania, and Libya (Figure 24). Welt Hunger Hilfe, IFPRI, and Concern International 2007 use the GHI progress indicator (GHI-P) to evaluate trends in the fight against hunger in individual countries in the period 1990–2015 and to assess whether those countries are on track to reach the MDGs. They classify various GHI-P scores as follows:

> "A negative score on the GHI-P means that a country is losing ground and is drifting away from achieving the targets. A positive score indicates that a country is making progress; however, a country needs a score of 0.5 or higher to show that, given the continuation of present trends, it is on track to achieve its GHI target score for 2015 (derived from the MDGs) by halving the proportion of calorie-deficient people and underweight children and cutting under-five mortality by two-thirds. Ideally a GHI-P score of 1 would demonstrate that a country has already achieved all three MDG targets incorporated in the GHI as of the halfway point of the time frame—mid-2003. For scores between −0.1 and 0.1, the change is considered too small to indicate a meaningful trend, and the countries falling into this category are classified as "stagnating"".

Based on the above classification, a map of progress in the GHI in view of the MDGs (GHI-P) for the COMESA region was developed (Figure 25).Based on that classification we observe that the COMESA region is making very little progress in eradicating hunger as indicated by the map.

Figure 25: Progress in the GHI in view of the MDGs



Source: Welt Hunger Hilfe, IFPRI, and Concern International. 2007, map by ILRI

Indicator 4: *Food aid in COMESA*

As a result of food insecurity, food aid has been an historical phenomenon in the COMESA region. Table 11 provides trend figures for food aid in the COMESA region and Tanzania. Since the year 2000 the region has been receiving at least 2 billion metric tons of cereals as food aid. In the year 2003, the region received about 2.1 billion metric tons of cereals as food aid, most of this aid went to Ethiopia, Zimbabwe, Eritrea, and Sudan. In year 2006, WFP alone distributed[1] more than half a million tons of cereals as food aid to Sudan and Ethiopia (586,859 tons and 551,757 tons), respectively (WFP 2007a). Kenya was also a major beneficiary of WFP food aid in this year (Figure 26).

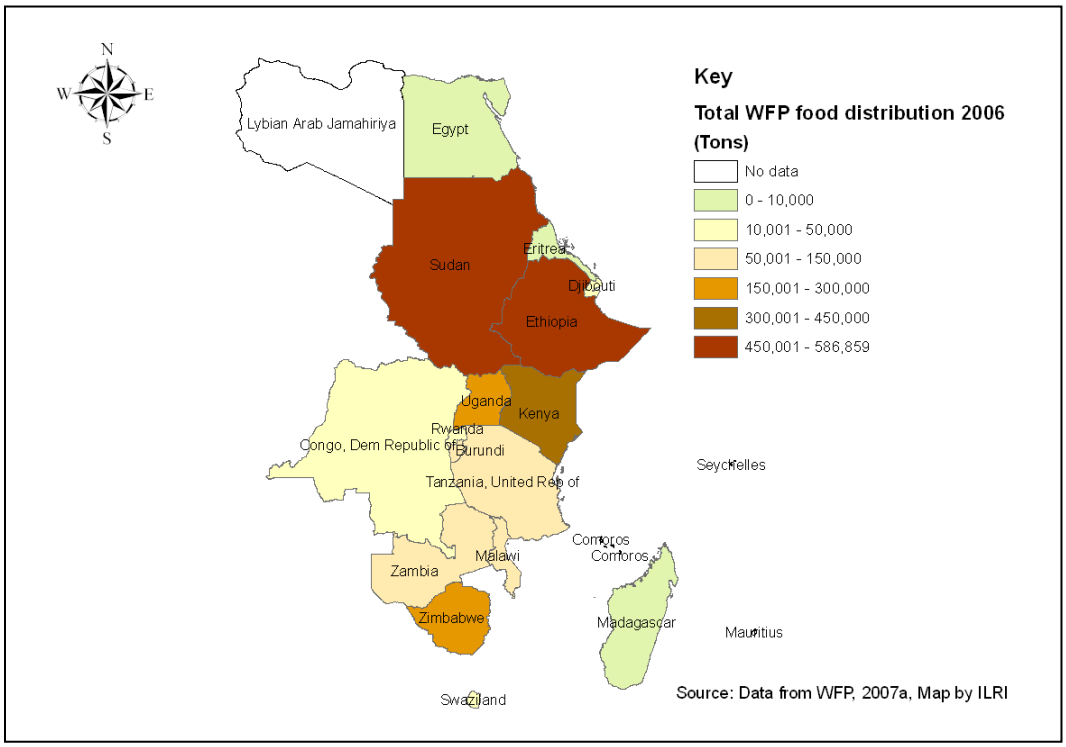
[1] For development projects, emergency operations, and protracted relief and recovery operations by the recipient.

Table 11: Food aid in cereals (OOO Metric Tonnes) 1970–2003

Countries	1970-74	1975-79	1980-84	1985-89	1990-94	1995	2000	2002	2003
Burundi	5,500	8,200	17,055	760	57,080	5,130	31,180	54,957	45,360
Comoros	800	2,600	5,407	3,265	5,765	21	-	-	-
DRC	1,000	68,387	137,558	106,879	91,334	16,995	41,618	45,064	72,803
Djibouti	-	4,900	15,008	6,224	18,143	13,639	12,567	13,934	5,334
Egypt	609,700	1,758,002	1,950,940	1,209,390	180,208	214,465	20,587	10,952	22,016
Eritrea	-	-	-	-	135,607	548,570	235,954	268,303	175,825
Ethiopia	54,100	111,442	868,932	538,409	727,358	491,482	1,198,970	1,213,970	941,976
Kenya	22,000	86,400	339,782	41,176	109,104	22,366	348,665	84,306	56,572
Madagascar	6,700	13,600	98,100	21,074	19,378	25,009	36,093	42,110	40,680
Malawi	100	4,717	5,371	136,268	291,112	102,099	16,477	156,240	22,736
Mauritius	21,600	21,500	9,159	9,093	681	-	-	-	-
Rwanda	19,300	14,300	34,864	5,893	289,193	267,041	43,117	20,096	24,115
Seychelles	400	2,100	1,190	430	-	-	-	-	-
Sudan	45,980	212,300	814,502	295,037	117,055	43,734	176,614	124,663	158,592
Swaziland	700	500	679	2,541	508	12,030	235,8.6	2,312	2,336
Tanzania	*147,700*	*89,300*	*124,932*	*16,617*	*108,670*	*14,789*	*71,025*	*50,730*	*112,324*
Uganda	-	16,700	31,237	21,397	28,364	17,491	47,632	112,767	90,030
Zambia	5,000	166,500	116,349	2,849	3,400	60,815	1,740	73,573	44,999
Zimbabwe	0	0	131,254	11,122	165	7,000	4,386	209,205	343,019
COMESA*	**792,880**	**2,492,148**	**4,577,387**	**2,411,807**	**2,074,455**	**1,847,887**	**2,217,959**	**2,432,452**	**2,046,393**
COMESA and Tanzania	**940,580**	**2,581,448**	**4,702,319**	**2,428,424**	**2,183,125**	**1,862,676**	**2,288,984**	**2,483,182**	**2,158,717**

Source: AfDB 2007
* Tanzania excluded

Figure 26: Total Food Distribution by WFP (for food development projects, emergency operations, and protracted relief) in COMESA countries



4.4 Subnational Food Security–Examples from Some COMESA Countries

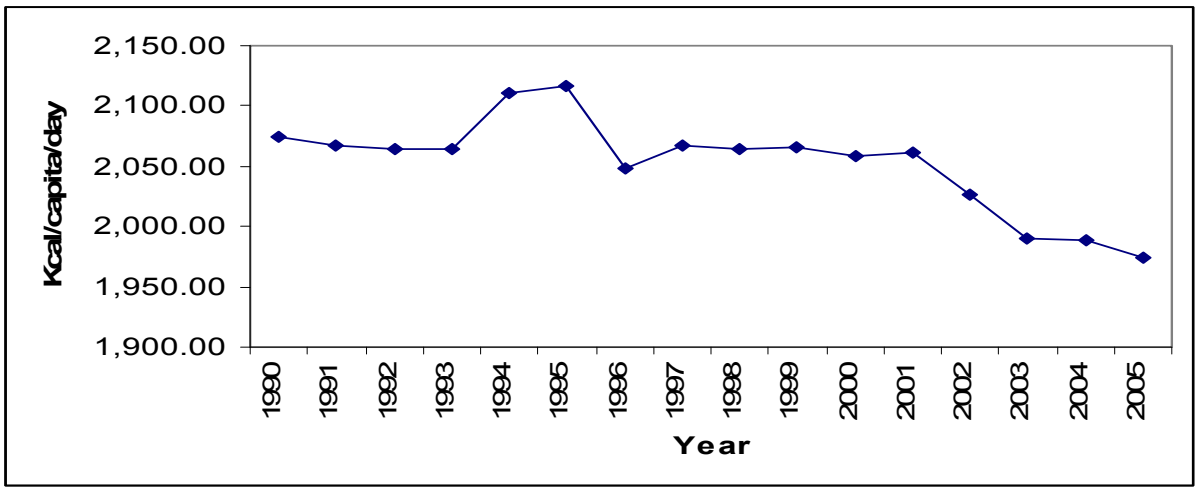
4.4.1 Food security in Kenya

Food insecurity continues to be a problem in Kenya as a whole and more so in the rural areas. The country is categorized as chronically food insecure ranking number 144 out of 173 food insecure countries of the world (UNDP-Kenya 2001). Below are various indicators for food security and nutritional status in Kenya.

Indicator 1: *Calorie intake per capita per day*

Per capita dietary consumption for Kenya is below the minimum calorie intake of 2300 Kilo calories per person per day. Despite the commitments by the government to pursue the first MDG goal of eradicating poverty and hunger, the country's per capita food consumption was still well below this threshold as of 2005 (Figure 27). In the early nineties, per capita calorie intake was at around 2050Kca/person/day and increased slightly to over 2100Kca/person/day. However, in 1996 there was a sharp decline, followed by a period of constant amount of intake at around 2050Kca/person/day. Since the year 2001, the decline is evident again.

Figure 27: Trends in per capita food consumption in Kenya (Kcal/capita/day)



Source: FAOSTAT 2007 (Accessed on October 25, 2007)

Indicator 2: *Food poverty at national and subnational levels*

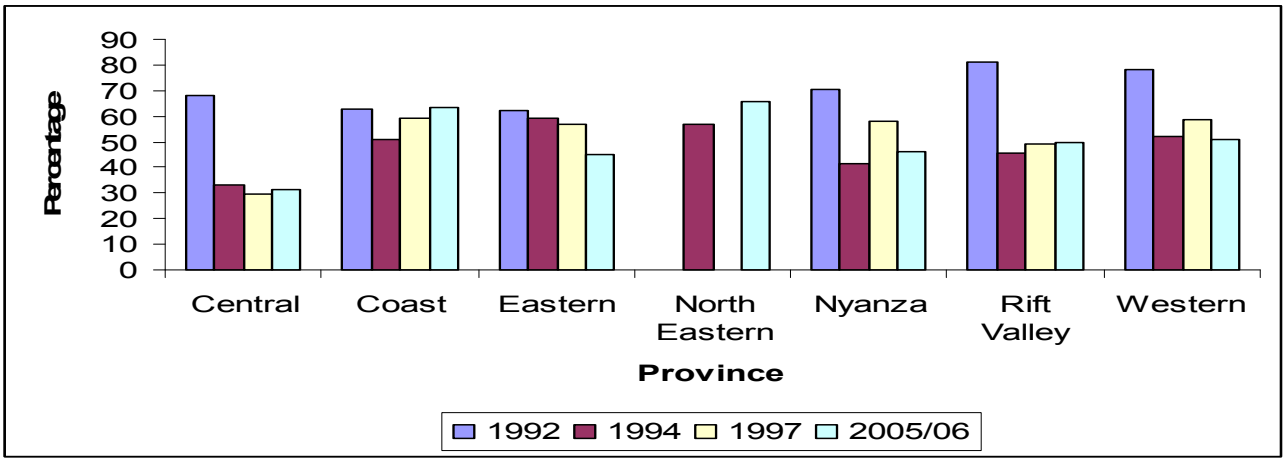
Although at the national level rural food security remains above 40 percent, the country has experienced a decline of the overall rural food poverty from 71.8 percent in 1992 to around 47.2 percent in the years 2005/2006 (KNBS, 2007a). Table 12 indicates the country food poverty levels in the years 1997 and 2005/06 respectively. There are provincial variations as far as these improvements are concerned. The Central Province has been better-off and rural food poverty has remained at around 30% while for all the other provinces it has been around 41 percent and 66 percent over the period 1994 to 2005/2006 (Figure 28). Regional disparities in food poverty can also be portrayed by the differences on the dependence on gifts and food aid as a source of food among the rural communities in the various Kenyan provinces (Figure 30).

Table 12: Food poverty levels in Kenya in the years 1997 and 2005/06

		WMS III-1997			KIHBS-2005/06		
Region	Poverty Measure	P=0 Adult eq (%)	P=0 Households (%)	P=0 Individuals (%)	P=0 Adult eq (%)	P=0 Households (%)	P=0 Individuals (%)
Rural	Food	50.7	43.4	50.6	47.2	38.5	47.2
	Absolute	52.9	46.4	53.1	49.1	42.0	49.7
	Hardcore	34.8	30.1	34.9	21.9	18.0	22.3
Urban	Food	38.3	32.4	38.4	40.5	31.2	40.4
	Absolute	49.2	43.5	50.1	33.7	27.4	34.4
	Hardcore	7.6	5.9	7.7	8.3	5.9	8.3
National	Food	48.3	41.6	48.6	45.8	36.7	45.8
	Absolute	52.3	45.8	52.6	45.9	38.3	46.6
	Hardcore	29.6	26.2	30.5	19.1	14.9	19.5

Source: KNBS 2007a

Figure 28: Rural food poverty by region

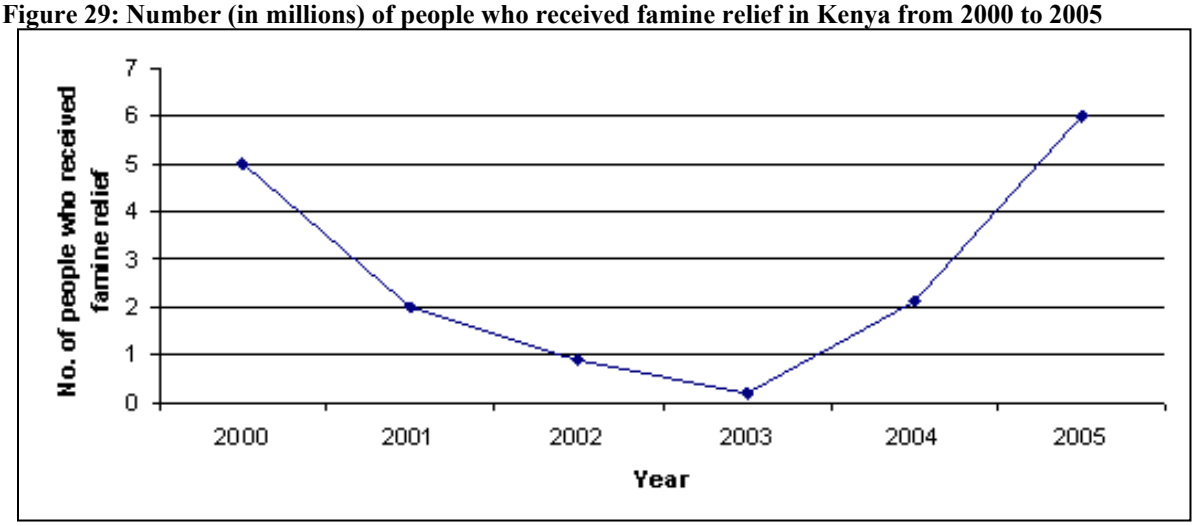


Source: KNBS 2007a

Indicator 3: *Food aid*

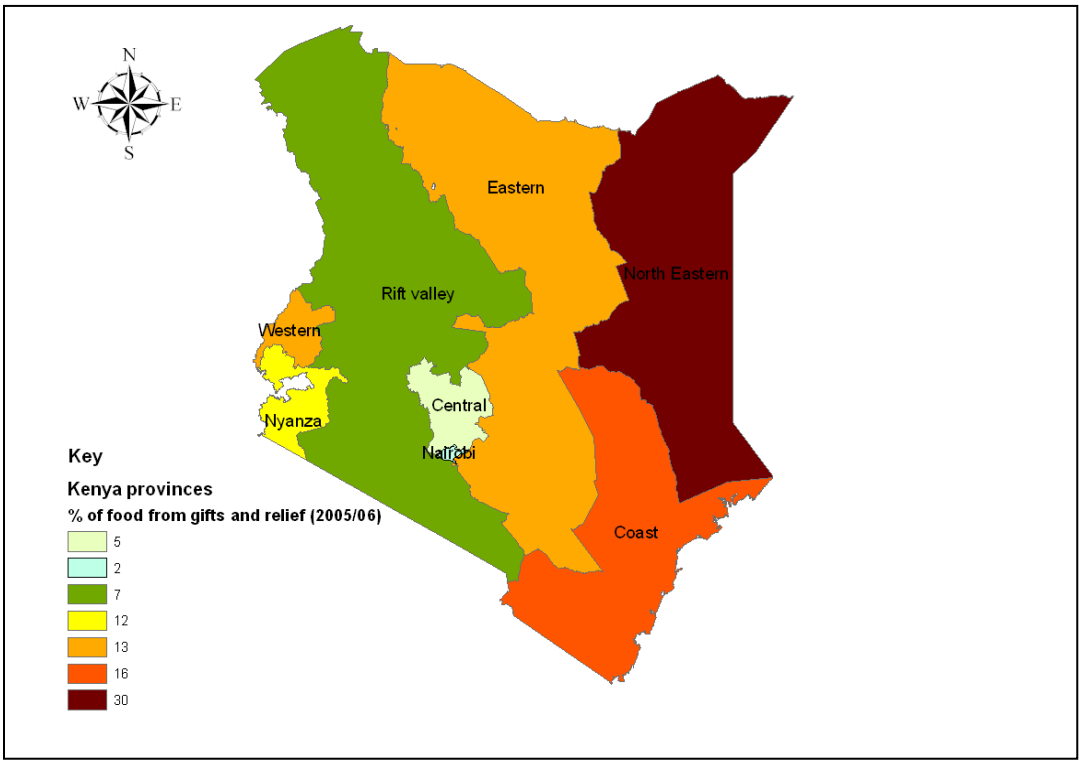
Reliance on food aid to meet nutritional needs of the population is one of the indicators of food insecurity in a country. Almost every year there is a need for food aid for a certain number of people in Kenya. The number becomes larger in years when the country is hit by draught (Figure 29). Kenya was among the countries that were classified among the countries in need of food aid by the FAO in the year 2005 (Figure 19). High potential areas are only affected by severe food insecurity on an occasional basis, while the pastoral communities located in the Arid and Semi-arid Land (ASAL) of the country tend to be food insecure almost every year (Boxes 2). Figures 31–33, present the distribution of food aid requirement and food insecurity in Kenya based on data from different sources. Regardless of the source of the data, one common observation is that food insecurity and the need for food aid are endemic in the areas located in ASAL agro-ecological zones.

Figure 29: Number (in millions) of people who received famine relief in Kenya from 2000 to 2005



Source: MoA and MPND 2006

Figure 30: Proportion of the total food shares obtained from gifts and relief among the rural communities



Source: Data from KNBS, 2007a map prepared by ILRI

Figure 31: Percentage of the population requiring food aid between November 2006 and February 2007

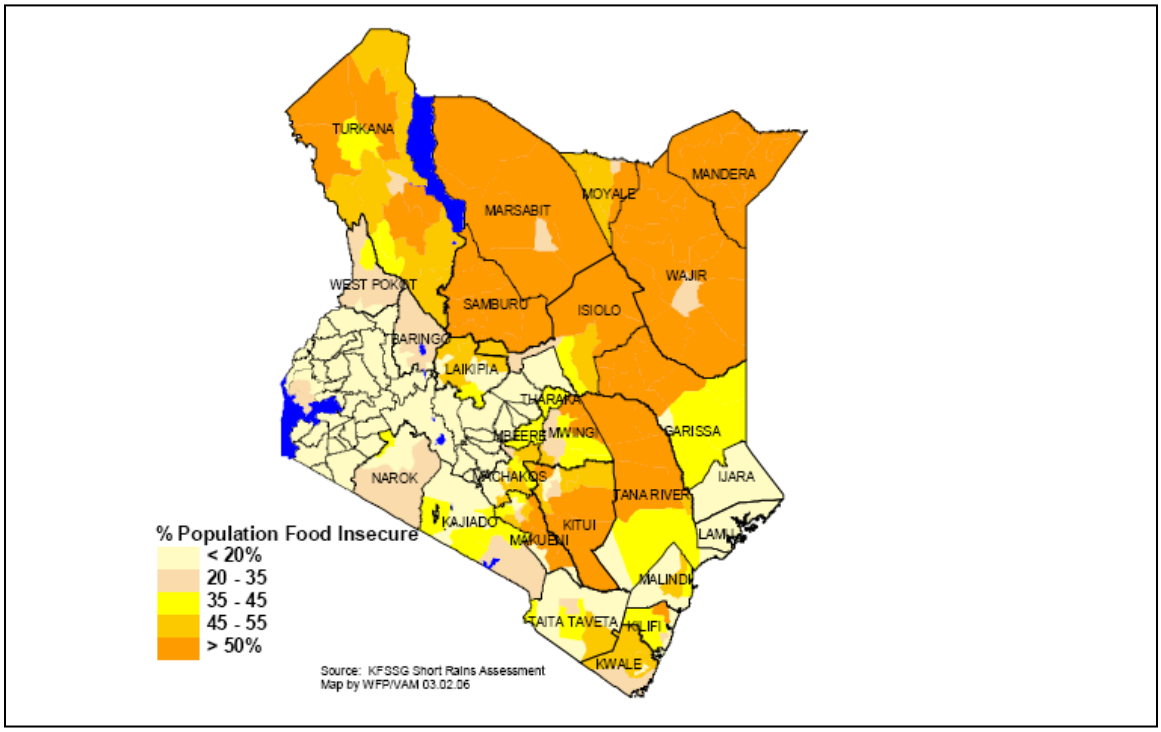


Figure 32: Food insecure population by district in Kenya 2006

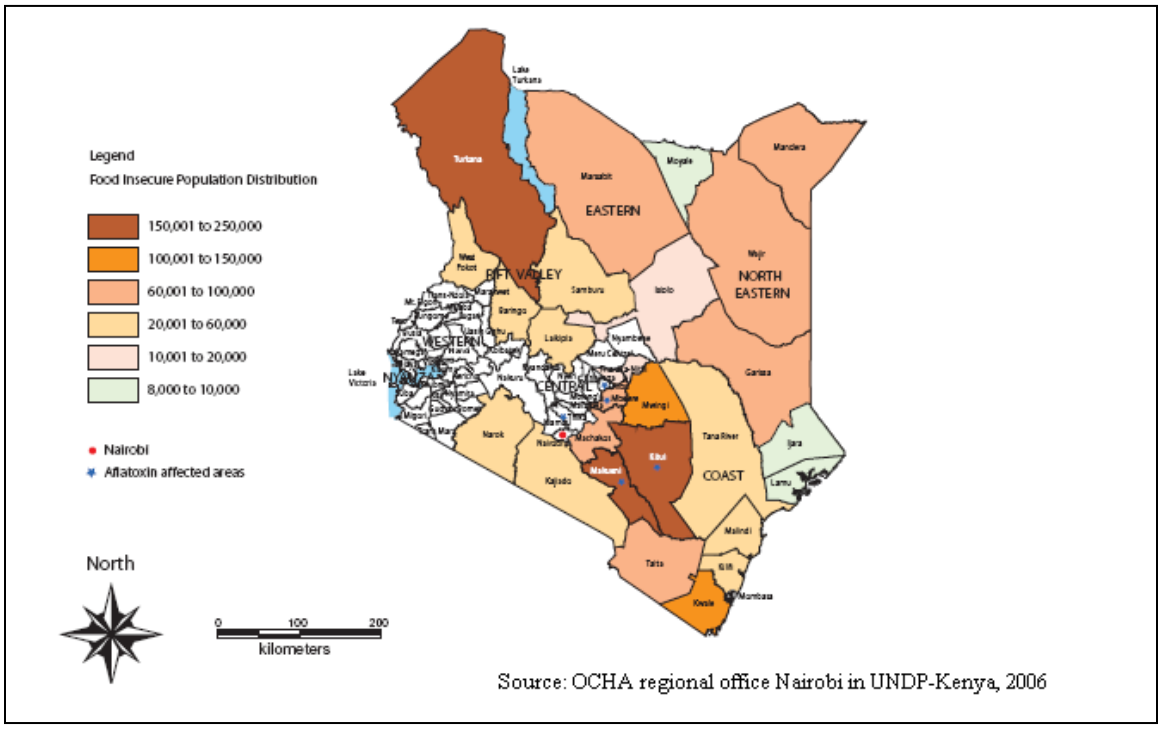
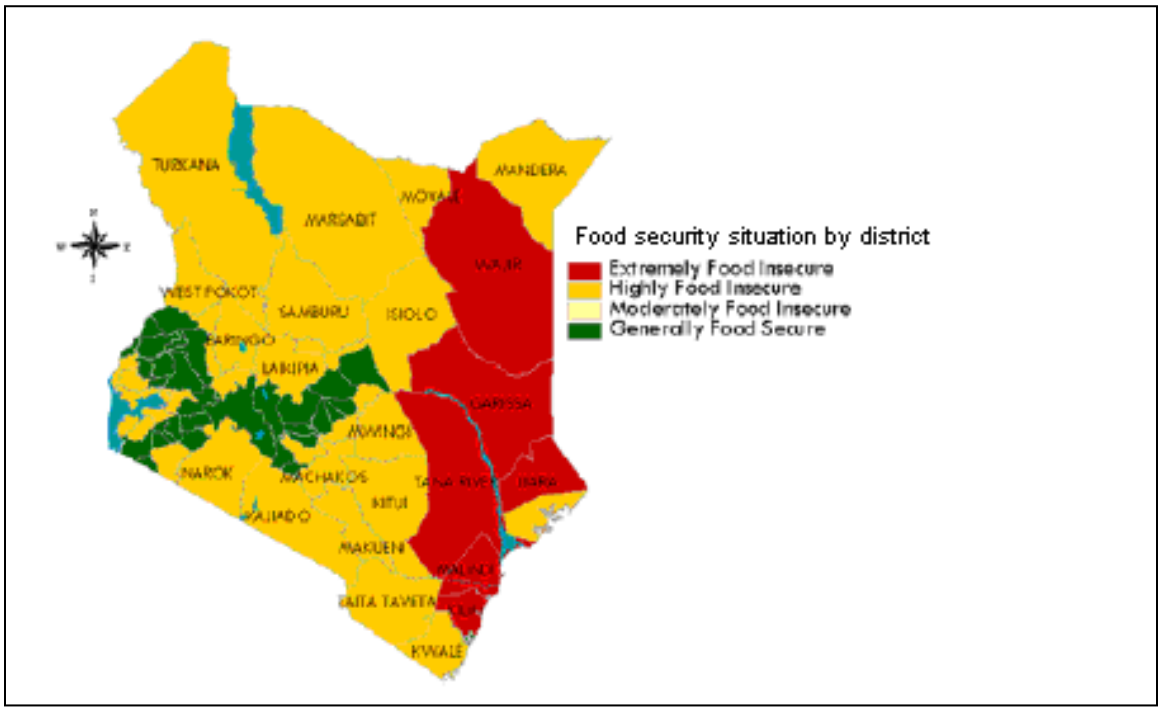


Figure 33: Food security situation in Kenya as of February 2007



Source: ALRMP/KFSSG, Graphics: FEWS NET Kenya, 2007

Box 2: Pastoralists the chronic victims of drought and food insecurity

Due to their farming systems of over-dependence on rain-fed agriculture and limited diversification, the pastoralists get affected during periods of weather variations. For example, during drought years (such as 1984/85, 1992/93, 2004/05 and 2005/06) many rural farmers lost their sources of livelihoods and up to 5 million became vulnerable. A survey carried out after the 1992/93 drought showed that about 2.2 million people were affected, of whom 1.46 million (66%) were pastoralists and 0.73 million (34%) were subsistence farmers. These figures indicate that pastoralists are the most affected by draught. This was confirmed in 2005/06 period when a severe drought hit Kenya. It affected over 3.5 million people in 25 districts otherwise known as Emergency Operation (EMOP) districts and to a lesser extent 2.5 million people in 20 Non–EMOP Districts. In the semi-arid areas, the drought claimed livestock worth Ksh. 16.67 billion which consist of: cattle worth Ksh. 12.8 billion, sheep valued at about 1.3 billion, goats worth Kshs 1.9 billion, and camels of about Kshs 0.67 billion.

Although North Eastern and parts of Eastern and Coast Provinces suffered great crop failure, food crop production in 2005 was good in parts of Rift Valley, Western, and Nyanza Provinces.

Source: Republic of Kenya 2006

4.4.2 Food Security in Uganda

Indicator 1: *Hunger, malnutrition, and food aid*

Based on the dietary energy consumption indicator, Uganda seems to be a relatively food secure nation compared to the rest of the East African countries. In the years 2001 to 2003 the country met the minimum required calorie consumption level as per the FAO's definition (Table 13, Figure 34). However, problems of malnutrition and pockets of famine and hunger in Uganda are still common (Tables 13 and 14, Figure 35). Furthermore, micronutrient deficiencies, particularly Vitamin A, are common and about 10% of women are undernourished (UDHS 2000/2001, National Food and Nutrition Council 2002 in UBOS 2006b). Table 13 provides the status of several indicators of food deprivation and deficiencies in food consumption in the country. Levels of malnutrition in the country are high and are among the major causes of high mortality of children prior to the age of five (Figure 35, Boxes 3 and 4).

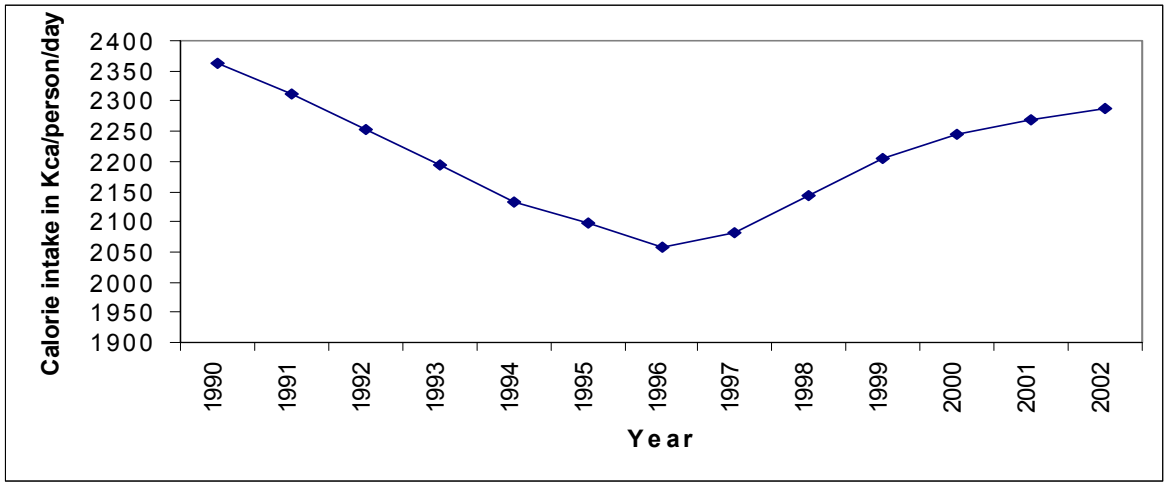
Northern Uganda which is commonly affected by insecurity leads in food insecurity in Uganda. All ages of the population in these areas are affected. Districts experiencing this situation include Gulu, Kitgum, Pader, and Lira districts and the Karamoja region (Republic of Uganda 2005a.). Maps in Figures 36 and 37 indicate the food insecure areas that required food aid in the years 2004 and 2005 respectively. Malnutrition rates remain significantly above the national average in all these areas (Box 4). The number of nutritionally vulnerable people amounted to more than 2 million in the year 2005, of whom 1.4 million were internally-displaced persons (IDPs) living in camps in the North (FEWS-NET 2004, UBOS 2006b).

Table 13: Food deprivation and consumption indicators in Uganda

Food Deprivation	1990-1992	1995-1997	2001-2003
Proportion of undernourishment	24	26	19
Number undernourished in millions	4.2	5.4	4.6
Food consumption			
Dietary energy consumption (Kca/person/day)	2270	2220	2380
Dietary protein consumption (g/person/day)	54	50	57
Dietary fat consumption (g/person/day)	31	32	32

Source: FAOSTAT 2006

Figure 34: Dietary energy consumption (Kca/person/day) in Uganda



Source: FAOSTAT | © FAO Statistics Division 2007 | 15 November 2007

Table 14: Food insecurity and food aid requirement in Kenya and Uganda

Country	Population at risk (Millions)	Food aid beneficiaries (Millions)	Summary of the situation
Kenya	1.2	1.2	Food security deteriorated for farmers in the South Eastern and Coastal Lowlands and pastoralists in the North East. In the North East, late rains and declining terms of trade accompanied rising child malnutrition rates and growing tension over scares resources.
Uganda	2.1	2.1	Mortality rates in the Northern Uganda's IDP camps were a big concern.

Source: FEWSNET 2005

Box 3: Food shortages in Uganda and their impacts on the most vulnerable section of the population, children

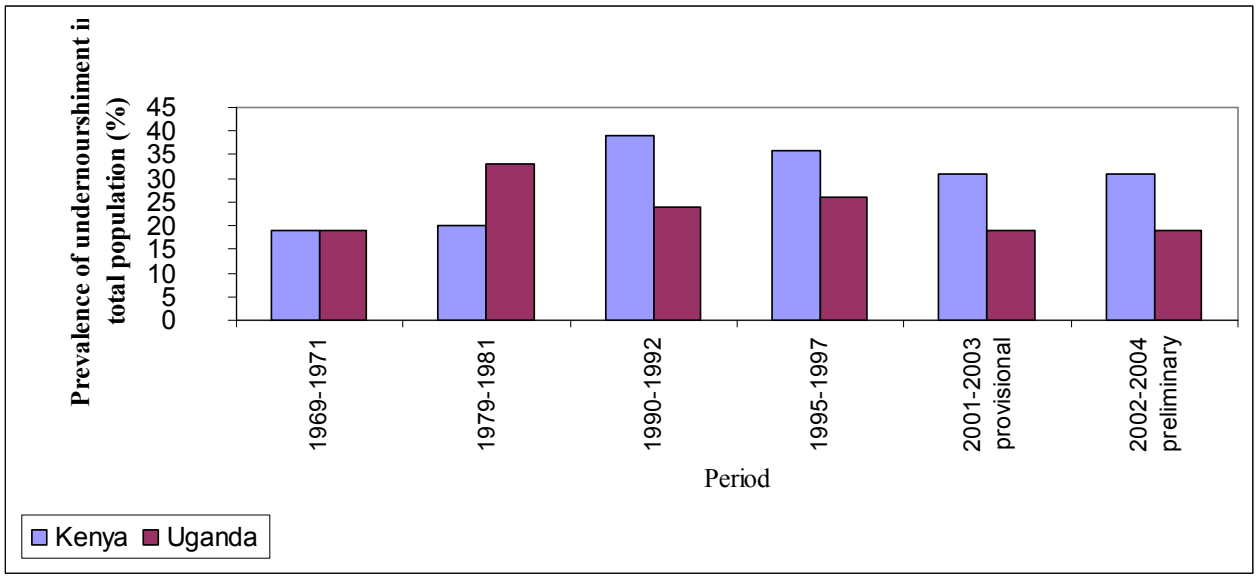
Many parts of Uganda often experience persistent food shortages and critical nutritional deficiencies. Under-nourishment, especially in childhood years, is unacceptably high and periodic famine has become a common phenomenon in many parts of the country. This situation is partly attributed to occasional poor harvests due to erratic rain seasons, which have a very significant impact on the largely rain-fed subsistence farming being practiced by over 80% of the population.
Source: (Republic of Uganda 2005a).

Impacts of malnutrition in Uganda based on the food and nutritional policy, 2000 by MAAIF and MoH

- 40% of total death among children in Uganda is due to malnutrition
- 38% of children below 5 years of age experience stunted growth due to malnutrition
- 23% of all children in Uganda are underweight due to malnutrition
- 4 % of children in Uganda are wasted due to malnutrition

Source: UBOS 2006b.

Figure 35: Prevalence of undernourishment in total population (%) in Kenya and Uganda



Source: http://www.fao.org/faostat/foodsecurity/Files/PrevalenceUndernourishment_en.xls

Figure 36: Food insecurity among the Internally Displaced Persons (IDPs) in Uganda

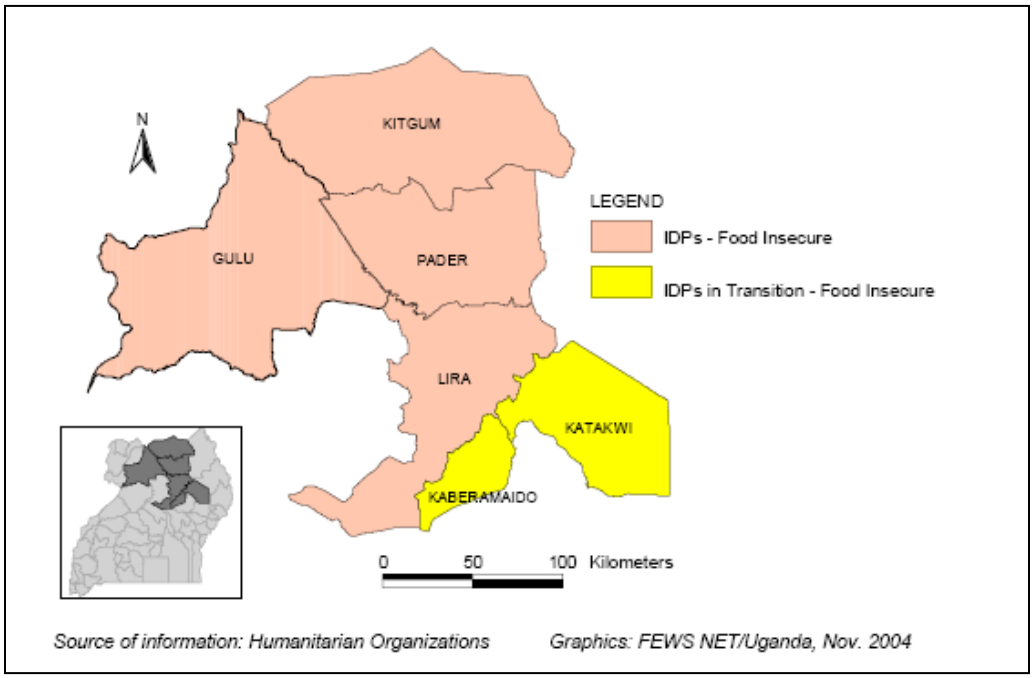
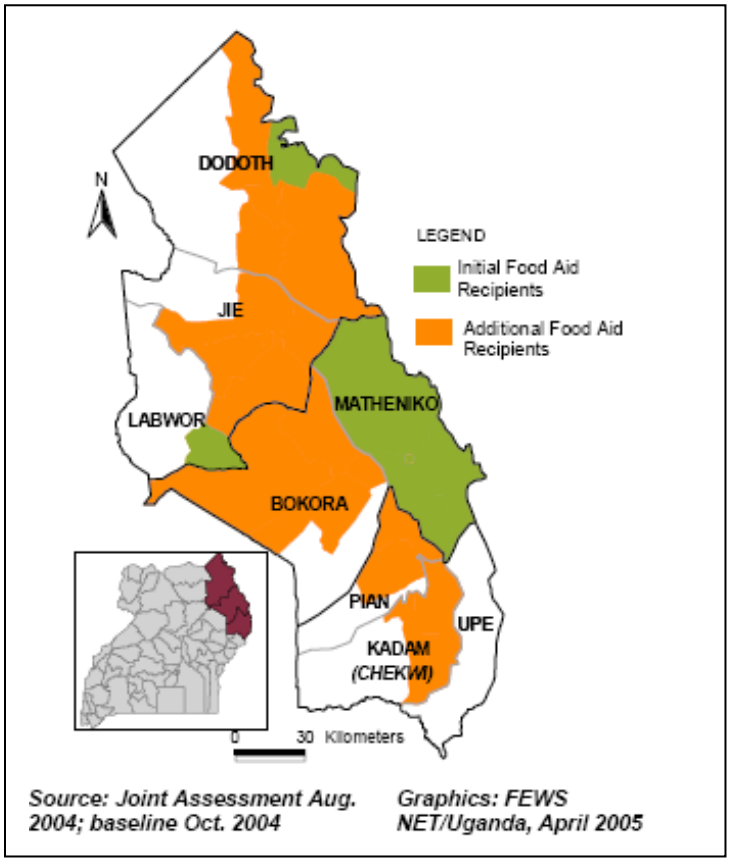


Figure 37: Food aid requirement in the Karamoja region of Uganda in 2005



Box 4: Nutritional status of children in Uganda

Undernutrition places children at increased risk of illness and death and has also been shown to be related to impaired mental development (CBS 2006). Anthropometry provides important indicators of children's nutritional status. Three summary indices are used here to present the nutritional status of children in Uganda: height-for-age (stunting), weight-for-height (wasting), and weight-for-age (underweight).

Indicator: *Stunting among children under five*
Stunting is the outcome of failure to receive adequate nutrition over an extended period and is also affected by recurrent or chronic illness. Thirty-two percent of children under five in Uganda are stunted and 12 percent are severely stunted.

Indicator: *Wasting among children under five*
Wasting reflects the failure to receive adequate nutrition in the period immediately before the survey, and typically is the result of recent illness episodes, especially diarrhea, and of rapid deterioration of food supplies. In Uganda, five percent of children under five were wasted at the time of the survey and about 1 percent were severely wasted.

Indicator: *Underweight children below the age of five*
This measure reflects both acute and chronic undernutrition. One in five children in Uganda (20%) is underweight and five percent are severely underweight.

Residence	Height- for-age (Stunted or short for age)		Weight-for-height (Wasted or thin)		Weight-for-age (Underweight)		Number Of children
	% below -3 SD (severely stunted)	% below -2 SD (stunted)	% below -3 SD Severely wasted	% below -2 SD (wasted)	% below -3 SD Severely underweight	% below -2 SD (underweight)	
Urban	6.9	22.4	1.6	5.5	3.2	13.7	274
Rural	12.5	33.3	0.9	5.3	4.7	21.1	2,410
Total (Uganda)	11.9	32.2	0.9	5.3	4.6	20.4	2,684
North Sub region							
IDP	11.4	31.2	0.8	5.1	4.6	23.6	171
Karamoja	27.4	47.6	0.5	9.1	18.2	48.9	88

Source: UBOS 2006[a]

4.4.3 Food Security in Malawi

Box 5 provides an overview of the food security situation in Malawi. Regional disparities are observed in the distribution of food security in Malawi. Central and Southern Malawi are mostly insecure while Northern Malawi is relatively better-off (Figure 38).

Box 5: Food security in Malawi

For the poor people of Malawi, poverty often means hunger. The country recently emerged from four consecutive years of drought and chronic food insecurity. In 2006 a bumper maize harvest promised to meet the immediate needs of most Malawians. Generally better weather conditions and timely use of subsidized seeds and fertilizers supplied by donors and the government made the difference over a large part of the country. But the good news about the maize harvest did not banish the specter of hunger from rural areas that were affected by dry spells or floods during the growing season. When their limited harvests fail or are inadequate, rural poor people do not have cash to buy food, and they go hungry. Even in years when rainfall is adequate, 40 per cent of Malawi's people do not have the purchasing power to be able to satisfy their daily needs. Chronic poverty and repeated food crises have depleted their livelihoods. Most households are food secure only for eight to ten months of the year. During the hungry season from December to February, poorer households regularly go without eating for an entire day, and when they do eat, most of them consume fewer than two full meals a day. Poverty and consequent food insecurity are most severe in the southern and central regions of the country. Typically the most vulnerable households have less than 1 ha of land to cultivate. They are also headed by a woman and household members have little or no education. Poverty weighs heaviest on children and mothers. One in five children dies before its fifth birthday. Almost half of all children under five are chronically malnourished. Chronic malnutrition, the HIV/AIDS epidemic, substandard health services, and lack of clean drinking water have combined to drive average life expectancy in Malawi down from 46 years in 1996 to 38 years in 2002. One million Malawians are infected with HIV/AIDS, which caused 90,000 deaths in 2003 and has left some 400,000 children orphaned. Because of the high death rate, the population is very young with about 72 per cent of Malawians under 25 years of age. And young people often lack the skills and experience they need to shoulder the burden of caring for orphans and chronically ill or disabled family members.

4.4.4 Food Insecurity in Ethiopia

Food insecurity in Ethiopia is a chronic problem and has necessitated the provision of food aid by various relief agencies. As noted by the FAO (2006b), food insecurity is more severe in rural Ethiopia.

> "Much of Ethiopia's rural population lives in a state of chronic food insecurity. Recurrent drought, degradation of natural resources and rapid population growth are among the main causes of declining per capita food production. Average daily energy intake is estimated at 16 to 20 percent below the accepted minimum, while diseases due to deficiencies in vitamin A, iron and iodine are widespread. Several times over the past 30 years, Ethiopia's precarious food security has tipped over into full-blown famine." (FAO 2006b)

Box 6, below, provides an overview of the food insecurity situation in Ethiopia as summarized by the WFP. Figure 39 indicates the distribution of the Ethiopian rural population in need of food aid and under emergency food appeal as of January 2007.

Box 6: An overview of food insecurity in Ethiopia

Some 1.36 million people in Ethiopia were in need of emergency food assistance in 2007. The Joint Government and Partners 2007 Humanitarian Appeal for Ethiopia requested US$ 179 million in humanitarian assistance to support both food and non-food interventions throughout the country. Once carry over stocks and pledges were taken into account, the total *net* emergency food required was estimated to be 88,172 metric tons, valued at US$50 million. The vast majority of relief needs were in the pastoral and agro-pastoral areas of the Somali region of eastern Ethiopia, which were critically affected by drought and floods.

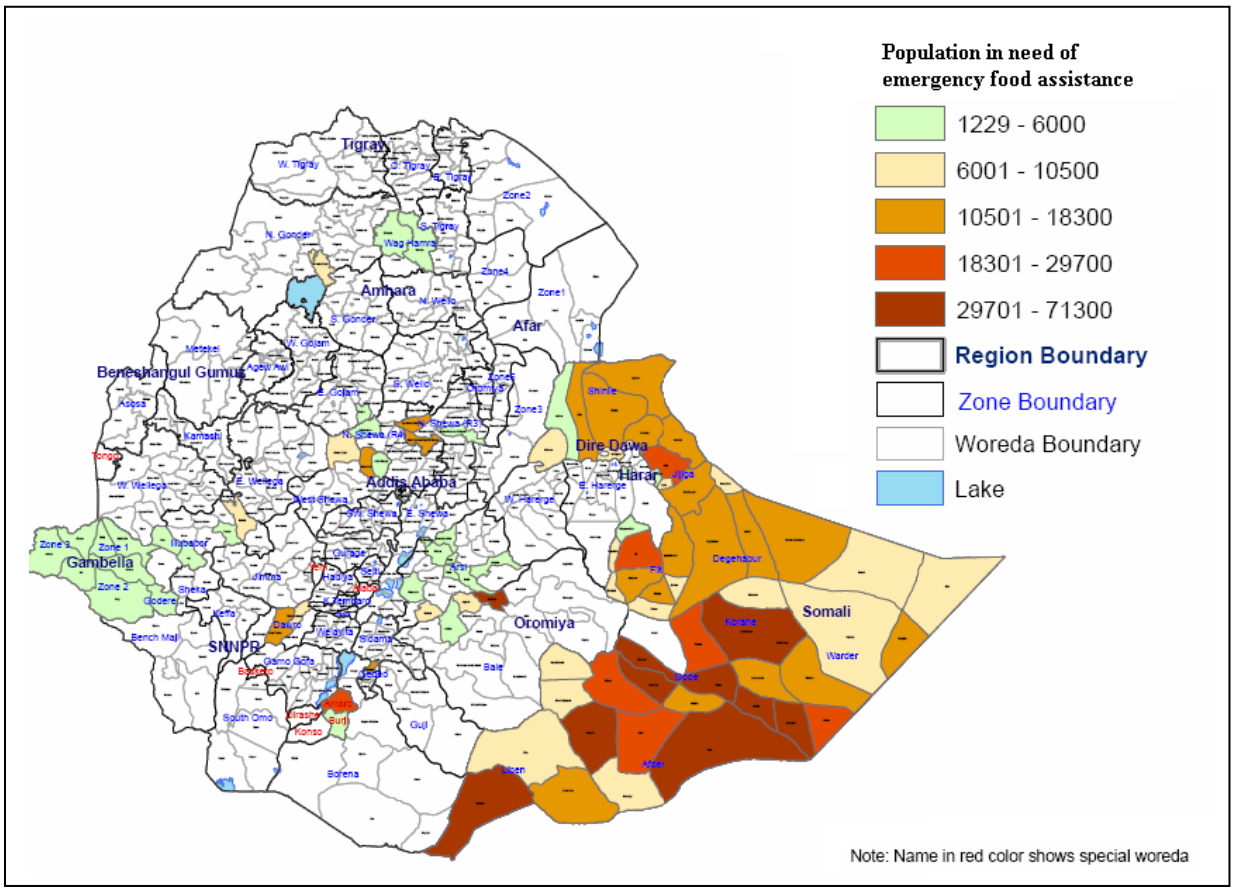
Restrictions on commercial trade affected all humanitarian actors providing assistance in the Somali region. Since the mid-1990s, the WFP has maintained a continuous presence and operations in the region and continues to work hard to help meet the humanitarian food needs of vulnerable populations in all parts of the Somali region. In recent years, food assistance has been the main form of external assistance received by poor and hungry households in the region and the WFP has responded to drought and floods with relief food distributions on a large-scale.

In 2006, WFP assisted more than seven million people in Ethiopia: 2 .26 million with relief food assistance, 2.87 million through the Productive Safety Net Programme, 712,000 with targeted supplementary feeding, 111,000 people affected by HIV/AIDS, 870,000 through land rehabilitation programs, 627,000 children through food for education, and 100,000 refugees.

Ethiopia experienced extensive flooding in many parts of the country in the mid- to later half of 2006. Unofficial estimates say that over 350,000 people were affected with many forced to leave their homes and live in temporary shelters after having been displaced by flood waters. In response to the near country-wide floods, the government of Ethiopia distributed 3,161 metric tons of WFP food to some 186,000 flood victims. Ethiopia has a population of 77 million with one of the world's highest incidences of malnutrition and one of the lowest primary-education enrollment ratios. The country has a high level of chronic food insecurity and is vulnerable to acute food insecurity, primarily caused by drought, environmental degradation, and low access to and availability of food.

Source: WFP 2007

Figure 38: Ethiopian rural population in need of food aid under emergency food appeal as of January 2007



Source: developed by WFP/VAM Ethiopia, May, 2009

5. Agriculture in COMESA

This section focuses on various aspects of agriculture development in COMESA. Section 5.1 provides an overview of agricultural production focusing on food production. Section 5.2 considers composition of agriculture outputs, while section 5.3 presents information on trends on agricultural input utilization in the COMESA countries.

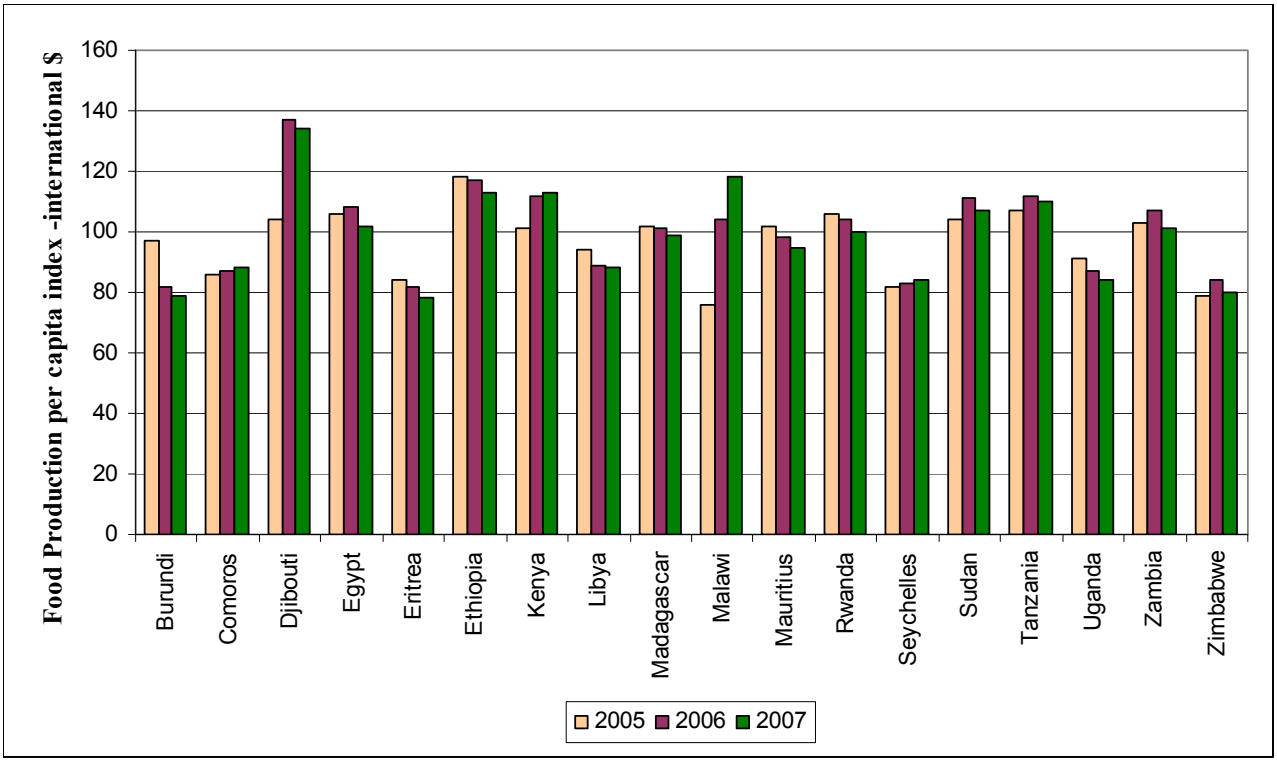
5.1 Food production in COMESA

Indicator 1: *Food production per capita index in COMESA*

The food production index shows relative levels of per capita food production annually. The food production per capita index presents net food production (after deduction for feed and seed) of a country's agricultural sector per person relative to a base period. The food production per capita index covers all edible agricultural products that contain nutrients; coffee and tea are excluded. For a given year and country, the index is calculated by taking the disposable average output of all food commodities per person in terms of weight or volume during the period of interest and

dividing that year's output by the average of the base year output per person. This ratio is then multiplied by 100 to obtain the index number. The index represents the total amount of food commodity for that period per capita relative to the base year average amount of food commodities per capita. Figure 40 indicates average food production per capita index for the countries in the region for the period between 2005 to 2007. Comoros, Djibouti, Kenya and Malawi experienced increase in food production per capita index, while the rest of the countries experienced some declines during this period.

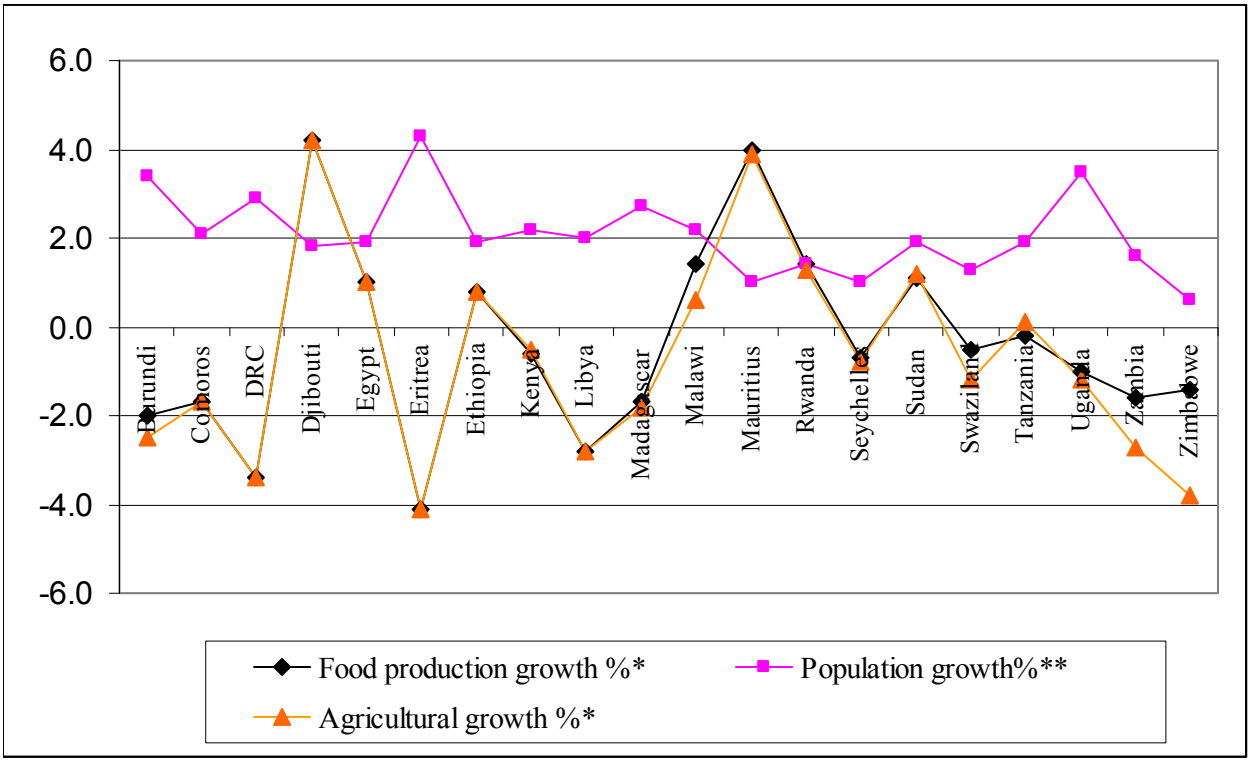
Figure 39: COMESA Per capita food production index, 2005-2007 (Percent (%) of 1999-2001 average food production per capita)



Source: EarthTrends (http://earthtrends.wri.org), World Resources Institute website, 2007

Relating population and food growth rates, it is evident that the population growth rate in COMESA generally outpaces food production for all member states (Figure 41). Indeed, all the COMESA countries except Djibouti and Mauritius have very low agri-food production growth rates and in some cases they experience declines. This calls for increased focus on enhanced food trade within the COMESA region, as well as between COMESA and the rest of the world. Trade in non-food items such as cash crops would also improve food security in the COMESA countries by generation of income to increase food purchasing power.

Figure 40: Comparative analysis of population and agri-food growth in COMESA



Source: AfDB 2007; World Bank 2006

Indicator 2*: Average annual growth rate in per capita food production*

Based on the information from the FAO publication, *The state of Food and Agriculture 2005* (FAO 2005), several countries in the region have negative growth rates in per capita food production including: Burundi, Comoros, DRC, Djibouti, Eritrea, Madagascar, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe. The average annual growth rate in per capita food production in Sub-Saharan Africa (SSA) was 1.8 in the period 1995-2004. Only three countries (Egypt, Malawi, and Rwanda) exceeded the SSA average in the same period (Table 14). This shows that the countries' consumption is greater than production thus indicating the need for imports and aid to increase food security.

Indicator 3: Annual growth rates (%) in crop and livestock production

Furthermore, FAO 2005 indicates that Rwanda has the highest growth rate in crop and livestock production in the region (with growth of 7.6 %). This rate is twice the average rate for Sub-Saharan Africa (Table 15). Other countries with high growth rates include: Malawi (6.1%) and Egypt (4.1%). DRC and Swaziland have the lowest growth rates with -2.4% and -0.4%, respectively.

Table 15: Crop and livestock production and per capita food production in COMESA

	Crop and livestock production		Per capita food production	
	Annual growth rates (%)			
Countries	**1985-1994**	**1995-2004**	**1985-1994**	**1995-2004**
Burundi	1.7	0.6	-0.8	-0.7
Comoros	3.6	1.5	0.7	-1.4
DRC	2.4	-2.4	-0.7	-4.6
Djibouti	2.9	1.8	-1.5	-0.6
Egypt	3.7	4.1	2	2.2
Eritrea	35.9	0.3	35.7	-2.7
Ethiopia	1.2	3.9	-2.7	1.5
Kenya	4.9	2	1.7	0
Libya	2.1	2.1	-0.4	0.2
Madagascar	1	1	-1.7	-1.7
Malawi	1	6.1	-2.8	6.1
Mauritius	0.9	1.5	0.2	0.9
Rwanda	-2.4	7.6	-1.5	2.4
Seychelles	1.2	1.7	-0.3	0.7
Sudan	4.5	3.2	3.4	0.9
Swaziland	0.5	-0.4	-2.4	-1.9
Tanzania	0.9	2.2	-2.4	-0.4
Uganda	3.1	2.8	-0.4	-0.3
Zambia	4.7	2	1.7	-0.2
Zimbabwe	3.9	1.2	2.7	-0.1
World	**1.9**	**2.5**	**0.3**	**1.2**
Developed Countries	**-0.1**	**1.0**	**-0.7**	**0.6**
SSA	**3.4**	**3.3**	**1.6**	**1.8**

Source: FAO 2005

Indicator 4: *Cereal production in COMESA*

Among the 19 COMESA countries, cereal production (in absolute terms) is highest in Egypt and Ethiopia, while production levels are very low in Djibouti, Comoros, and Mauritius (Table 16).

Eritrea, Sudan, Mauritius, and Rwanda have the highest annual cereal growth rates of cereal production (over 10%). The lowest growth rates of cereals are found in Swaziland, Malawi, Djibouti, and DRC (Table 16). Most COMESA countries have positive annual growth rates of cereal production, except Djibouti, DRC, Malawi, and Swaziland that exhibit negative cereal growth rates. Low growth rates in cereal production could imply unfavorable land and agro-

ecological conditions in the respective countries. In major cereal-consuming countries such as Kenya, the cereal growth rate curve is almost synonymous with the overall food production trend.

Table 16: Cereal production in COMESA countries

	Production '000' MT		Annual Growth
Country	2000	2004	2000-2004
Burundi	245	281	1.2
Comoros	21	21	0.2
Congo (DRC)	1623	1573	-0.8
Djibouti	0	0	-1.3
Egypt	20106	22284	2.5
Eritrea	121	152	12.6
Ethiopia	8005	9340	2.2
Kenya	2591	2869	1.6
Libya	217	213	0.1
Madagascar	2660	3391	3.7
Malawi	2631	1860	-3.9
Mauritius	1	0	18.9
Rwanda	240	413	15.7
Sudan	3259	5368	19.3
Swaziland	114	76	-7.2
Tanzania	4327	5090	4.0
Uganda	2112	2625	3.3
Zambia	1050	1028	4.9
Zimbabwe	2538	1187	2.8

Source: AfDB 2007

Indicator 5*: Cereal productivity in COMESA*

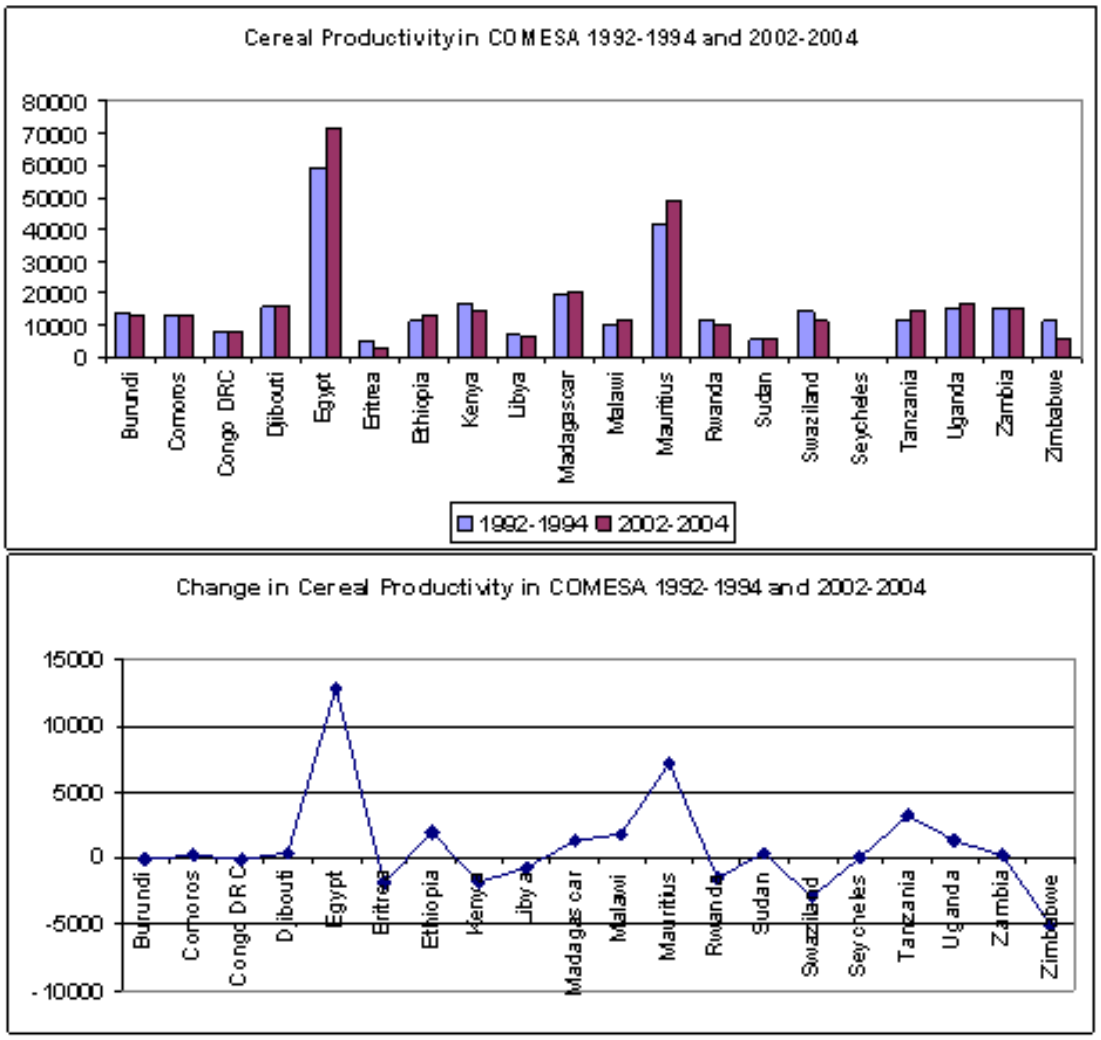
Based on the FAO data on average cereal productivity for 2002–2004 (FAO 2005), cereal productivity in the region is highest in Egypt where one hector yields 7.2 metric tons, followed by Mauritius (4.9 metric tons/ha) and Madagascar (2.1metric tons/ha). Eritrea has the lowest cereal productivity of all COMESA countries as its average productivity for the years 2002–2004 was only 0.3 metric tons/ha (Figure 42)[2].

Comparing the maize productivity figures for the years 2002–2004 with the past decade's (1992–1994) figures, we note that some COMESA countries have recorded an increase in productivity while others have had declines. Egypt and Mauritius had the highest increase (1.2metric tons/ha and 0.5 metric tons/ha, respectively). Other countries had minor increases including: Tanzania, Ethiopia, Malawi, Madagascar, Uganda, Djibouti, Sudan, Zambia, and Comoros. Decreases in productivity occurred in Zimbabwe, Swaziland, Eritrea, Kenya, Rwanda, Burundi, and DRC.

[2] These figures were obtained from FAO data that were presented in hectogram per hector, 1 hactogram=100grams.

Zimbabwe had the highest decrease with her productivity declining by 0.5metric tons/ha (Figure 42).

Figure 41: Cereal productivity (Hg/ha) in the COMESA countries 1992–2004



Source: FAO 2005

Indicator 6: *Self-sufficiency in cereal production*

Malawi, Uganda, and Tanzania have high rates of self-sufficiency in cereal production (93.3%, 93.1%, and 90.0% respectively). Import dependency for cereals is very high in Mauritius (118.7%) and Djibouti (115.0%) (Figure 43).

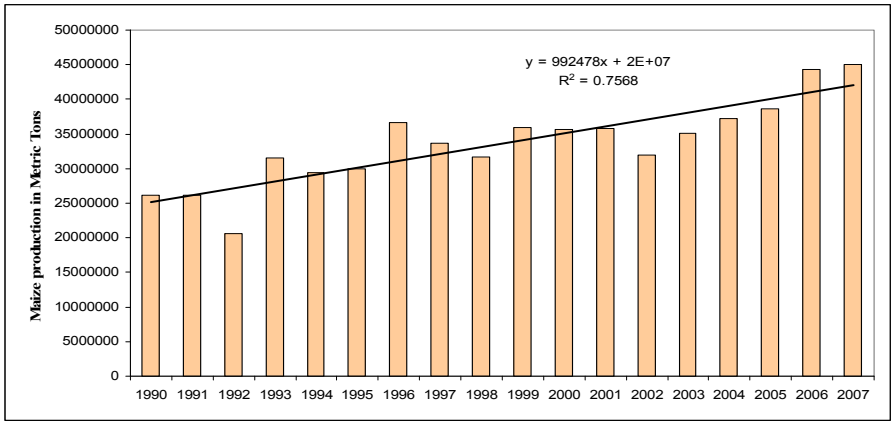
Figure 42: Annual rate in cereal self-sufficiency and import dependency in COMESA

Source: AfDB 2007

Indicator 7*: Maize Surplus/Deficits*

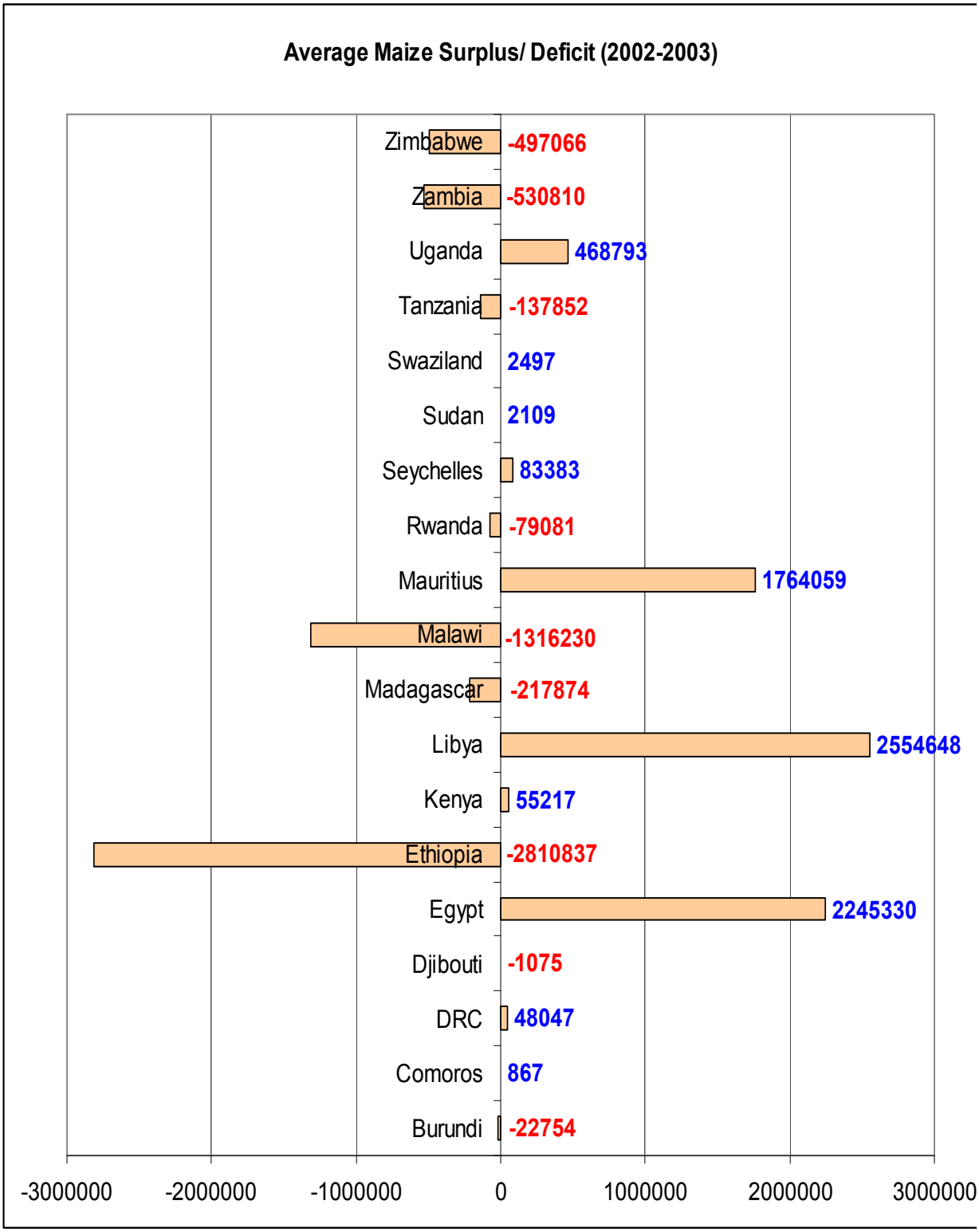
Generally, the COMESA region produces surplus maize (Figure 44). However, at the country level some countries tend to be having deficits while others have surpluses. Figure 45, indicates maize surplus/deficit for countries in the region. To control for the possible effect of extreme rainfall conditions in a year, calculations displayed in the figure have been arrived at using an average of two years (2002 and 2003). These were years with most recent data on both production and consumption. The figure indicates that in the years under calculation, 10 countries had a maize surplus (the ones in blue) while the other nine had a deficit (the ones in red). This portrays the need for policy measures to enhance regional trade in food products to insure food security (in food deficit areas) and to provide markets thereby stimulating supply in areas that have comparative advantage in producing surplus.

Figure 43: Maize balance (production–consumption) in COMESA 1990–2007



Source: FAOSTAT, © FAO Statistics Division 2009, May 29, 2009

Figure 44: Maize balance (surplus/deficit) in the COMESA countries in 2002–2003



Source: FAOSTAT, © FAO Statistics Division 2009, May 29, 2009

5.2 Input Utilization in COMESA

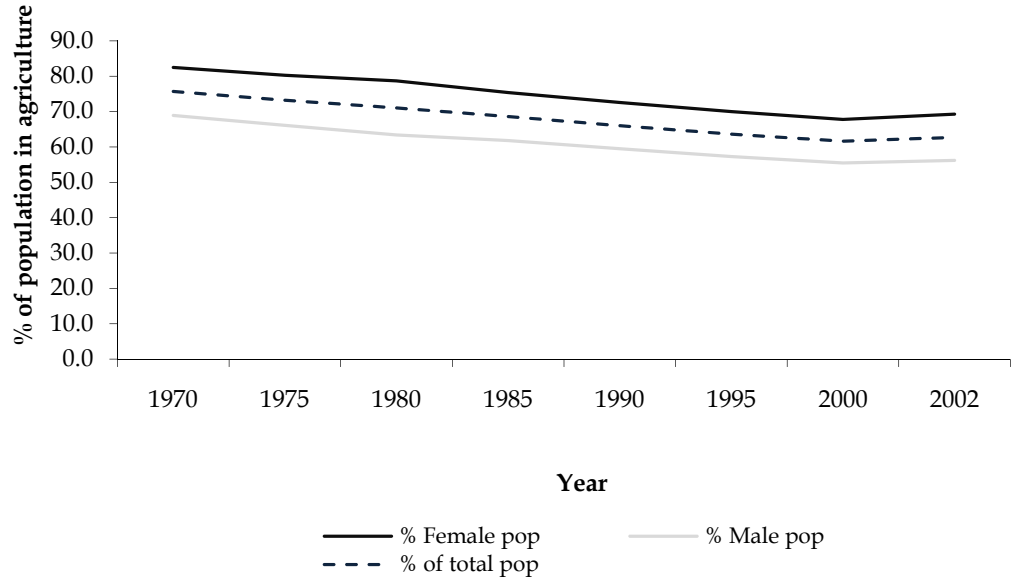
In this section, a discussion on various indicators on agricultural input in the COMESA region is provided. The inputs covered here include labor, land, agricultural machinery, and fertilizer.

Indicator 1: *Labor participation in Agriculture within COMESA*

Some 67.8% of the total COMESA population participates in agriculture. This constitutes 74.6% of the total female population and 61.1% of the male population in the region. Trends in the aggregate measure as well as the gender-disaggregated participation measure have been on a gradual decline (Figure 46). However, the drop in agricultural participation does not reflect any significant structural transformation in COMESA's agriculture, as most households in the region still depend on agro-based livelihood sources. Rwanda has the highest proportion of female population (97.6%) participating in agriculture, while Ethiopia has the highest percentage of male population (86.9%) involved in agriculture. Libya has the lowest percentage of female population (20%) in agriculture. The lowest proportion of male population in agriculture is also in Libya (12%).

Reliance on agriculture in order to sustain livelihoods by the majority of the population within the region implies that interventions through policy measures targeted towards improving agricultural productivity are likely to improve the lives of many people. The down trend in labor participation (Figure 46) shows the need to adopt improved agricultural technologies that are not labor intensive and improve agricultural productivity.

Figure 45: Trends in agricultural labor participation by gender in COMESA, 1970–2002



Source: AfDB 2007.

Indicator 2: *Agricultural land and agricultural machinery*

Agriculture is an important economic activity in the COMESA region. This activity occupies more than 80% of the total land area in Burundi and more than 75% in Rwanda and Swaziland. More

than half of land area is under agricultural use in Uganda, Zimbabwe, and Tanzania. Other countries with a large proportion of agricultural land (at least 40%) are Madagascar, Zambia, and Kenya. Egypt and Libya have the lowest proportion of their land designated to agriculture (Table 17). Use of agriculture machinery (tractors per 100 square km of arable land) is more prevalent in Egypt, Swaziland, and Libya, and occurs least often in Rwanda, Burundi, Ethiopia, and Congo DRC (Table 17)

Table 17: Agricultural inputs in COMESA 1990–2003

Countries	Agricultural land (% of land area)		Land under cereal production (' 000 ha)		Agriculture machinery (tractors per 100 sq, km of arable land)	
	1990-92	2003-05	1990-92	2003-05	1990-92	2003-05
Burundi	82.9	91.3	219	210	2	2
Comoros	-	-	-	-	-	-
DRC	10.1	10.1	1,868	1,974	4	4
Djibouti	-	-	-	-	-	-
Egypt	2.7	3.5	2,410	2,851	251	309
Eritrea	-	74.6	-	370	-	8
Ethiopia	51	31.8	4,586	9,039	-	3
Rwanda	75.6	78.4	258	332	1	1
Swaziland	75.8	80.9	69	61	251	222
Kenya	45.7	-	1,766	2,017	24	28
Libya	8.8	8.8	355	341	187	219
Madagascar	47	47	1,321	1,457	11	6
Malawi	40.2	47.2	1,443	1,544	11	12
Tanzania	53.7	54.4	3,003	3,340	19	19
Uganda	61	-	1,098	1,550	9	9
Zambia	47.4	47.5	813	717	40	43
Zimbabwe	52.3	53.1	1,431	1,617	11	11

Source: World Bank 2007, World Development Indicators

Indicator 3: *Fertilizer intensity (Kg/ha)*

Table 18: Fertilizer intensity (Kg/ha) in COMESA

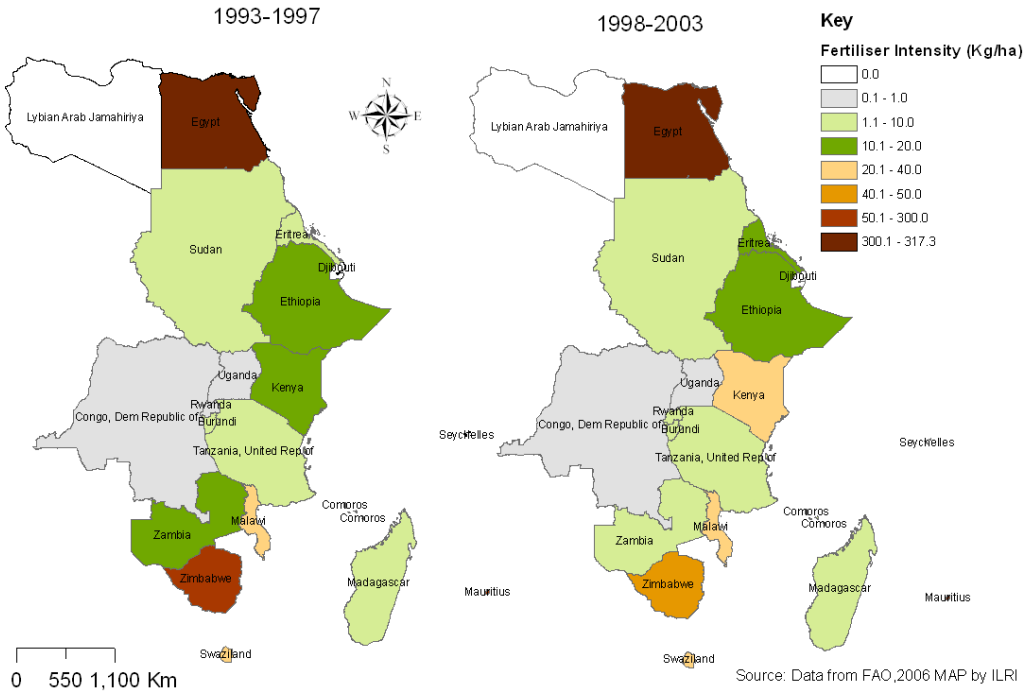
Country/Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Burundi	3	2.4	2.3	2.1	0.8	2.8	3	2.7	2.6	1.9	0.2	0.8	2.5
Comoros	0.8	2.5	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.3			
DRC	0.5	1.3	1.1	0.8	..	0.4	0.1	0.1	0.3	1.3			
Egypt	304.4	259.8	343.1	352.3	326.9	354.9	338.6	382.8	392	370.8	535.1	555.1	624.8
Eritrea	1.4	3	3.7	13.5	15.3	13	21.8	19.4	9.7	6.5	1.7	..	2.2
Ethiopia	7.2	11.1	12.8	16.9	12.5	15.5	15.7	14.7	11.8	15.8	5.3	1.3	2.4
Kenya	21.2	26.9	16.2	33.2	27.2	25.7	29.3	28.8	29.1	27.7	74	32.1	16.4
Libya	51.2	34.3	40.2	26.4	26.1	23.5	40.2	25.6	34	28.8	27.9	43.4	56.4
Madagascar	3.3	3.3	3.7	4.9	2.8	2.5	2.3	2.6	2.6	2.6	1.8	1.8	4.5
Malawi	37.8	10.8	21.7	28.6	27.2	23.5	22.9	22.2	11.7	19.8	20	13.5	33.5
Mauritius	245.3	275.5	300.9	355.9	315.6	312.3	333	353.8	269.3	208.5	279.2	129.2	242.5
Rwanda	1.2	..	..	0.3	0.4	0.3	0.3	0.3	0.2	11			
Seychelles	..	..	..	..	..	..	3.3	6	2.9	2.4			
Sudan	3.6	3.8	3.2	5.6	4.6	2.2	2.3	2.4	5.1	3.4	3.5	4.6	2.6
Swaziland	61.1	25.8	26.8	22.2	27.2	30.4	28.8	30.4	36.5	36.5			
Tanzania	8	7.8	5.8	6.7	8.6	6.5	4.4	4.5	1.5	3.0	4.2	5.2	9.2
Uganda	0.3	0.3	0.2	0.1	0.1	0.5	0.6	0.9	0.8	1	1.3	1.2	0.8
Zambia	16.2	11.2	10.4	9.7	10.7	6.9	6.4	5.9	6.9	12.3			
Zimbabwe	50.9	53.8	45.2	51	51.8	52.2	55.2	49.3	45.4	38.9	33.2	25.3	32.5
COMESA +Tanzania	**45.4**	**43.2**	**49.4**	**51.8**	**50.6**	**48.64**	**47.92**	**50.25**	**45.51**	**45.94**	**76.0**	**67.8**	**79.3**
COMESA	**47.61**	**45.36**	**52.13**	**54.47**	**53.23**	**51.12**	**50.34**	**52.79**	**47.96**	**48.41**	**81.9**	**73.5**	**85.1**
World	**79.1**	**79.8**	**84.9**	**88**	**89.8**	**90.2**	**91.7**	**88.2**	**89.5**	**91.9**			
Sub-Saharan Africa	**12.4**	**11.1**	**10.2**	**11.5**	**11.4**	**10.8**	**11**	**10.5**	**10.7**	**12.4**			

Sources: FAOSTAT 2007 and World Resources Institute 2007, http://earthtrends.wri.org/searchable_db

Fertilizer intensity refers to the amount of fertilizer applied per unit of land. The majority of COMESA countries apply very little fertilizer which is one of the factors that contributes to the lower yield levels in these countries. Table 18 provides ten (1993-2005) years of trend data for fertilizer intensity in the COMESA region. Some countries are missing data for the period after 2002. From this table it is evident that fertilizer intensity for most COMESA member states has consistently been lower than the world averages over the same period.

Based on fertilizer intensity data we find that the average fertilizer intensity in COMESA was 48.4 Kg/ha in the year 2002, about half of the world average which was 96Kg/ha in the same year. It is worth noting that the average fertilizer intensity in COMESA is largely influenced by two countries which have the highest fertilizer intensity in the region: Egypt and Mauritius. In the year 2002, fertilizer intensities for the two countries were 371 kg/ha and 236 kg/ha respectively (Table 18). Figure 47, indicates five year average fertilizer intensity for COMESA countries.

Figure 46: Fertilizer intensity (Kg/ ha) in COMESA countries 1993–2003



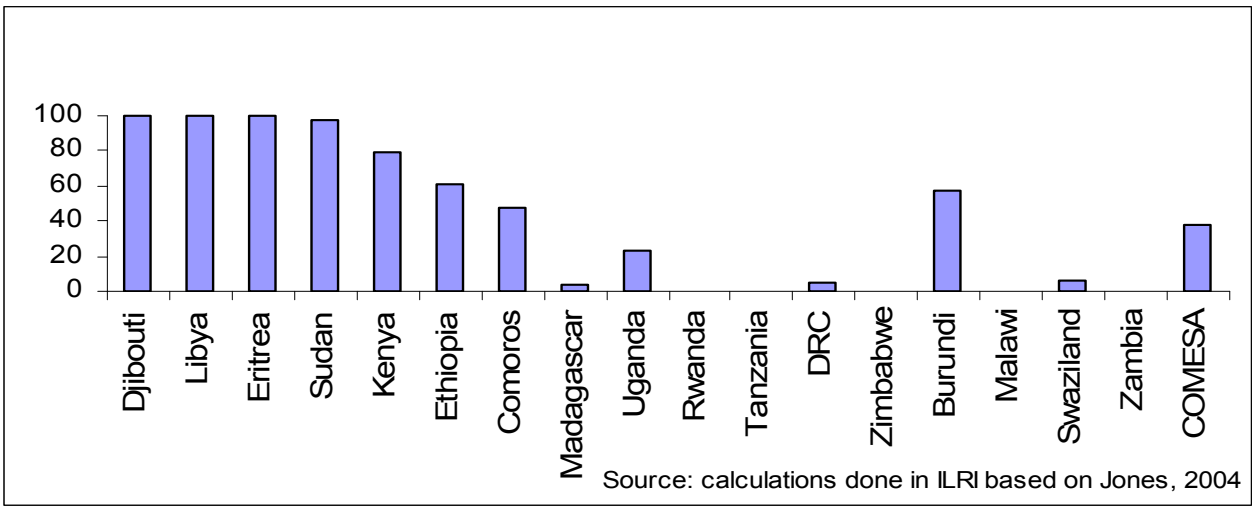
5.3 Irrigation in COMESA

A number of COMESA member states have large swathes of arid and semi-arid areas, making irrigation inevitable for any form of crop production. Libya, Djibouti, Eritrea, and Sudan have almost all their land within the arid and semi-arid areas. Other countries with large areas under arid and semi-arid areas include: Comoros, Kenya, Ethiopia, and Burundi (Figure 48)[3]. Investment in irrigation is also required in some drier parts (regions) of countries not considered to be dry at the national level. Examples of such regions include: the Bugesera area in Rwanda, North and Eastern Uganda among others. Furthermore investing in irrigation is vital in almost all COMESA countries because rainfall unreliability and recurring droughts are a common phenomenon in the region (Annex 3). In addition, COMESA countries will need to invest in irrigation to mitigate the impacts of increased frequency of droughts likely to occur as a consequence of global climate change.

Despite the existence of several reasons for why COMESA member states should invest in irrigation, it is noted that reasonable investment in this important component of agricultural production has only been made by a few countries. Below, we present some indicators of trends in irrigation development in COMESA.

[3] Note: no data for Egypt

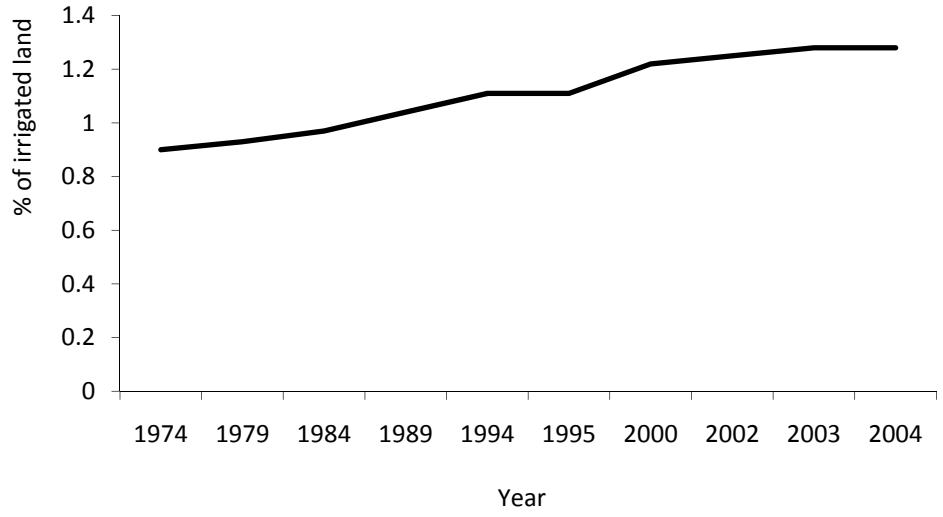
Figure 47: Arid and semi-arid land as a proportion of total land area in COMESA



Indicator 1: *land under irrigation as a share of total arable land in COMESA*

The share of total land put under irrigation has been gradual increasing in the COMESA region from 0.9% in 1974 to 1.28% in 2004 (Figure 49).

Figure 48: Percentage of irrigated land in the COMESA region, 1974–2004



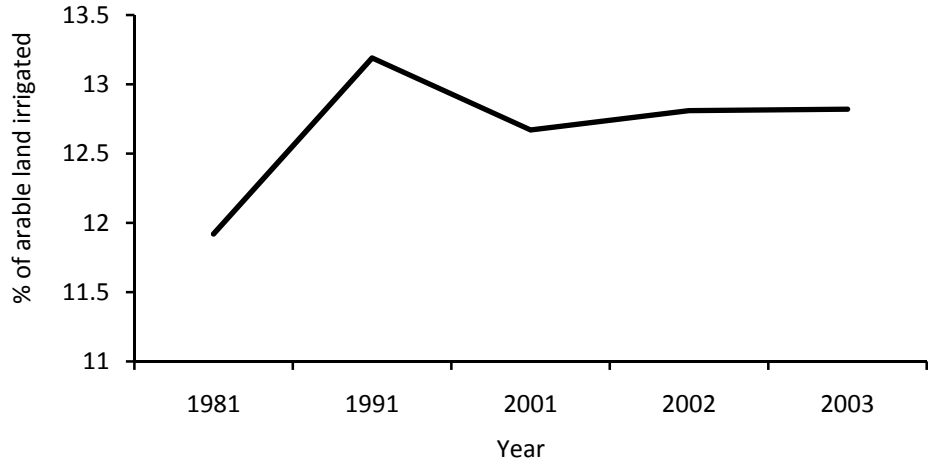
Source: FAO 2006d

Although the share of arable land under irrigation (for permanent crops)[4] has been slightly higher than the share of total land irrigated, this indicator recorded a fluctuating trend between the years

[4] Land cultivated with crops that occupy the land for long periods and need not be replanted after each harvest, such as cocoa, coffee, and rubber. This category includes land under flowering shrubs, fruit trees, nut trees, and vines, but excludes land under trees grown for wood or timber (http://www.fao.org/es/ESS/os/indicators_definitions.asp#23)

1981 to 2003 with the average being 12.68%. The share of arable land under irrigation rose from 11.92% in 1981 to 13.19% in 1991, then subsequently dropped to 12.82% in 2003 (Figure 50).

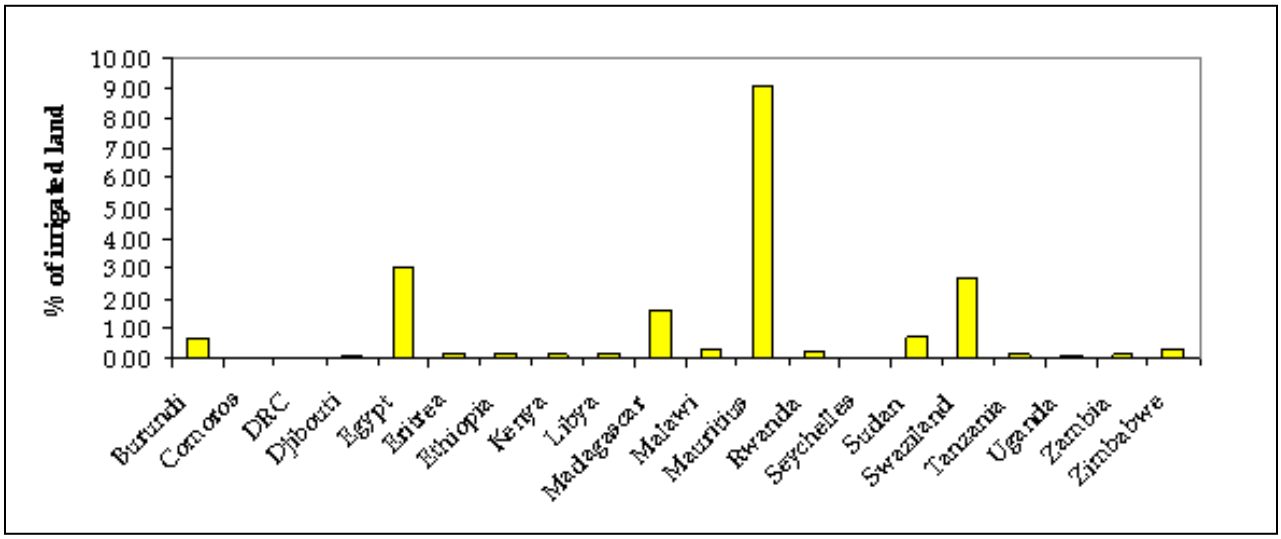
Figure 49: Share of arable land under irrigation in the COMESA region, 1981–2003



Source: FAO 2006d

On average, only 1.11% of total land in COMESA was under irrigation during the period between 1974 and 2004. The proportion of irrigated land is almost zero in DRC and Djibouti. Mauritius has the highest proportion of irrigated land with 9.06% (Annex 2, Figure 51).

Figure 50: Proportion of total land under irrigation in COMESA member states, 1974–2004

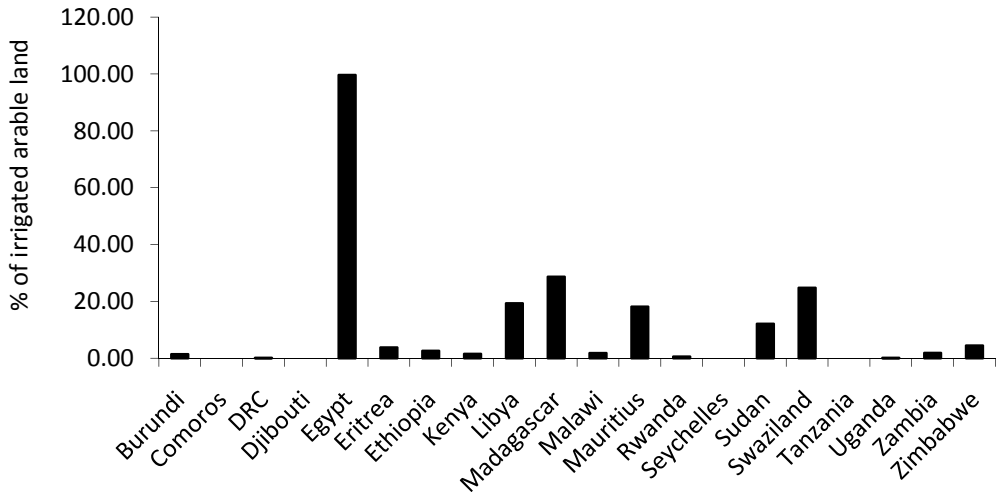


Source: FAO 2006d

At the country level, only three countries have irrigated more than 20% of their arable land (under permanent crops). These are Egypt (99.63%), Madagascar (28.67%) and Swaziland (24.78%). The

proportions in Libya, Mauritius, and Sudan are 19.3%, 18.2%, and 12.1% respectively. In all other countries less than 10 percent of arable land under permanent crops is irrigated (Figure 52). This implies that the COMESA countries have not exploited the agricultural potential and benefits of irrigation, especially during the drought years and low rains seasons. This is an area where investments in agriculture under the CAADP initiative could be targeted to increase crop production and food availability in the region.

Figure 51: Proportion of irrigated arable land in COMESA countries



Source: FAO 2006d

Indicator 2*: Water use intensity*

This indicator refers to the amount of water used for irrigation in cubic meters per hectare per year. According to the latest available statistics for this indicator (Table 19), Egypt has the highest amount of water use in the region (17,928 m^3/ha/yr), followed by Swaziland, Mauritius, and Madagascar. The DRC and Uganda have the least amount of water use compared to all other COMESA countries.

Table 19: Water use intensity in cubic meters per hectare per year (m^3/ha/yr) in COMESA

Country	Water use intensity in 2000
Burundi	168.2
Comoros	36.2
Congo, Dem Rep	14.1
Djibouti	3000.0
Egypt	17,927.7
Eritrea	515.1
Ethiopia	486.6
Kenya	199.6
Libyan Arab Jamahiriya	1,648.4
Madagascar	4,088.6
Malawi	361.6

Mauritius	4,339.6
Rwanda	88.7
Seychelles	150.0
Sudan	2166.0
Swaziland	5,267.0
Tanzania	926.4
Uganda	16.8
Zambia	249.7
Zimbabwe	990.4

Source: World Resources Institute 2007

6. Investments in Agriculture and Agricultural Value Addition in COMESA

6.1 Investment in Agriculture

This section contains information on the budget allocation to the agricultural sector by the countries in the COMESA region based on the available data. The aim of this section is to provide monitoring information to assess if the countries are allocating adequate resources to the agricultural sector as per the 2003 Maputo Declaration where countries committed to allocate at least 10% of their budget to agriculture. This information can also be useful for peer review among countries.

Generally, the percentage of national budget allocation to agriculture remains low among the COMESA member states. The majority of the countries in the region have not achieved the target of allocating at least 10% of their national budgets to agriculture (Table 20, Figure 53). Figure 53 indicates percentage budget allocation to agriculture by some countries in the region for the period between 2002 and 2004 based on a survey by the African Union (AU). Out of the countries presented in this figure, the 10% budget allocation to agriculture target was only met by Zimbabwe in the year 2003 but the amount dropped to only 6.2% in the following year. In the year 2004, Ethiopia was the only country that allocated more than 10% to agriculture. In year 2005, only two countries in the COMESA region met that target. These countries were Ethiopia (16.8%) and Malawi (11%) (AU 2008).

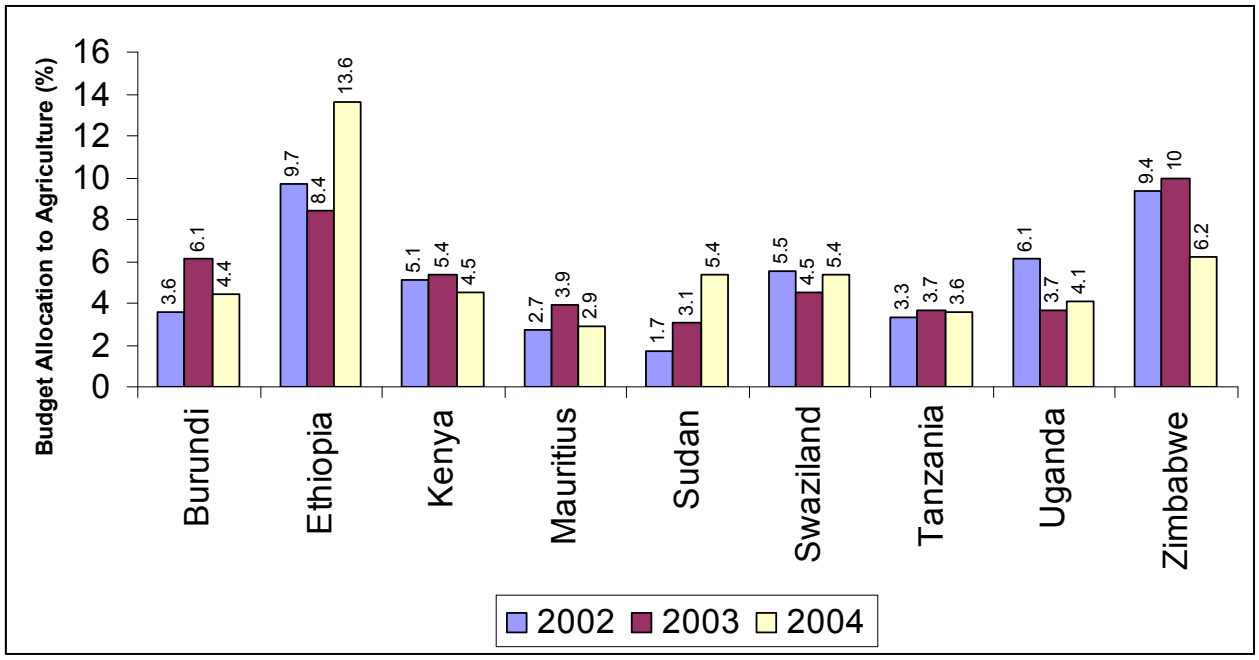
Table 20: Trends of budget allocation (%) to agriculture in the ECA

Country/Year	2002	2003	2004	2005	2006	2007
Burundi	3.6	6.1	4.4	..	..	..
Egypt	6	5.94	5.08	5.01	..	..
Ethiopia	4.65	7.53	13.57	16.45	..	..
Kenya	4.58	4.59	4.59	..	..	..
Rwanda*	5.1	3.9	4	3.4	3.3	3.5
Sudan	1.7	3.1	5.4	..	..	..
Uganda**	6.9	5.2	5.03	3.2	5.2	..
DRC	0.8	0.7	1.5	1.8	..	..

Madagascar	8	7.9	8	8	..	..
Malawi	5.2	7.20	6.5	10	17.2	12.2
Swaziland	4	3.3	3.3	5	..	..
Tanzania	4.5	6.8	5.5	5.5	..	..
Zambia	8.5	8.9	5.3	5.6	6.3	..
Zimbabwe	9.4	10	6.2	6	..	..

Source: Compiled by SAKSS from various sources

Figure 52: Percentage budget allocation to agriculture, 2002–2004



Source: African Union **(**AU), 2007 *10 Percent Budget Allocation to Agriculture Development*, Addis Ababa, Ethiopia in **http://www.africapartnershipforum.org/dataoecd/53/17/39759850.pdf**

A fluctuating trend is observed in the budget allocation to agriculture by the countries in the region and hence it is difficult to indicate whether there is an increasing trend towards governments committing more resources to the agricultural sector. As shown in figure 53, only Sudan shows an increasing trend in agriculture investment though the nation is still below the 10% budget allocation. All other countries had higher percentages of budget allocation followed by lower levels. Nonetheless, long term trends data will be crucial to prove if indeed Sudan is maintaining the increasing trend in budget allocation to agriculture. Ethiopia, in the year 2004, maintained the commitment of 10% budget allocation to agriculture. If the observed fluctuating trends continue, it will be hard for COMESA countries to realize and maintain the commitment of 10% budget allocation to agriculture. To provide further information on this subject we present below more description on budget allocation to agriculture from three COMESA countries: Zambia, Kenya, and Uganda. The choice of these countries was determined by data availability.

i) Agricultural expenditure in Zambia

The fluctuating trends of budgetary allocation and quality of investments are exemplified by the Zambian case. The country's share of agricultural expenditure to national budget rose from 4.5% in 2001 to 8.2% in 2003, and then dropped to less than 7% in the subsequent years (Table 21).

The total amounts allocated to agriculture rose from 194 billion Kwacha in 2001 to 650 billion Kwacha in 2006 (Table 21).

Table 21: Zambia's budget allocations to agriculture, 2001–2006

	Amount (nominal Kwacha billions)					
Item	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Personal Emoluments	15	29	26	71	75	84
Recurrent Department Charges	19	20	25	18	44	39
Grants and Other Payments	2	2	10	9	4	3
Poverty Reduction programs/HIPC	65	78	347	142	221	270
Capital Expenditure	38	18	1	0	0	1
Agricultural show	0	0	0	0	1	2
Donor Funded Programs	22	37	61	62	49	211
Agricultural Infrastructure & social relief Services	33	21	21	34	62	32
Allocations to provinces & districts	0	0	8	7	7	7
Total agricultural expenditure	**194**	**205**	**499**	**343**	**464**	**650**
% allocation in national budget	**4.5**	**4.0**	**8.2**	**5.3**	**5.6**	**6.3**

Source: Govere et al 2007 in Oxford Policy Management 2007.
Note: The Fertilizer Support Program and Food Reserve Agency are included under these programs.

There were significant changes in agricultural expenditure priorities in Zambia from 2001 to 2006. Allocations to poverty reduction programs and personal emoluments more than doubled, while capital expenditures drastically declined. Table 21 above indicates that virtually no funds have been allocated for capital expenditures for the Ministry of Agriculture and Cooperatives (MACO) since 2002 from Government of Zambia funds. Capital investment is an important component of agriculture development and should not be ignored. Govereh et al. 2007, state that the implications of underinvestment in this area are clearly evident in Zambia (Box 7).

Box 7. Implication of lack of capital investment for agriculture in Zambia

It is no surprise that effectiveness of employees in the agricultural sector is limited given that equipment and buildings are run down and are not being replaced. Research and training institutions are dilapidated and laboratory equipment in research stations is obsolete and in most cases non-functioning. Supportive infrastructure such as office space, laboratories, and institutional and camp housing at service delivery centers and points is non-existent in a number of locations. This has led to some stations being understaffed. Where staff accommodation exists, it is in a deplorable state. Even though the government may not purchase new assets every year, it should nonetheless allocate enough resources each year to cover depreciation of existing capital assets.

Source: Govereh et al. 2007 in Oxford Policy Management 2007

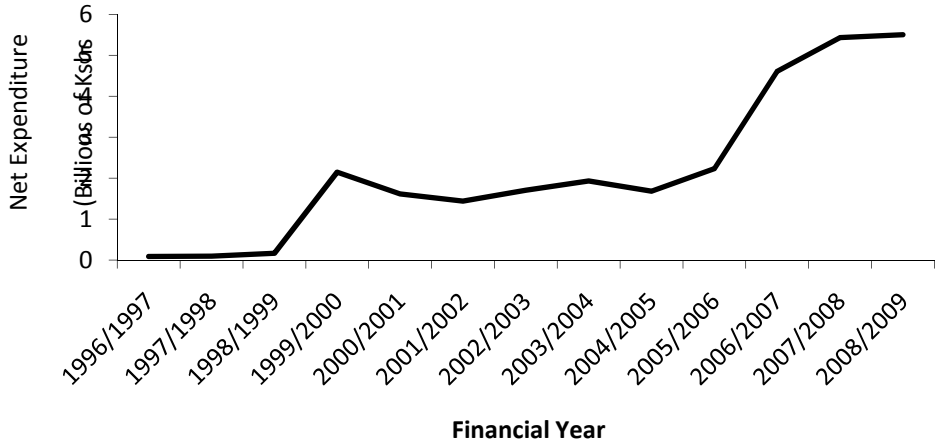
ii) Expenditure in agriculture in Kenya

Public expenditure in Kenya is typically categorized as Recurrent or Development Expenditure. Recurrent expenditure covers mainly overhead costs such as salaries, wages, electricity bills, and so forth. Development expenditure on the other hand includes all cost elements that directly relate to expansion in real output in the economy. Development expenditure thus provides the best

measure for investment at both national and sectoral levels. In the agricultural sector, development expenditures usually target projects and programs in research, extension, training, value addition, and development of market infrastructure among other essential services.

There is evidence of an upward trend in the public expenditure on agricultural development projects between 1996/1997 and 2008/2009. The level of public expenditure in the sector rose from 85 million shillings in 1996/1997 to 92 million in 1997/1998, 164 million in 1998/1999 and a high of 2.1 billion in the 1999/2000 financial year before the Ministry of Agriculture was separated from the Ministry of Livestock Development and that of Marketing. However, when the Ministry of Agriculture was merged with that of Rural Development, while the marketing function was transferred as a department in the Ministry of Cooperatives in the year 2000, there was a decline in budgetary allocation to agriculture (Figure 54). The amounts projected for expenditure in 2007/2008 and 2008/2009 are 5.4 billion and 5.5 billion shillings respectively.

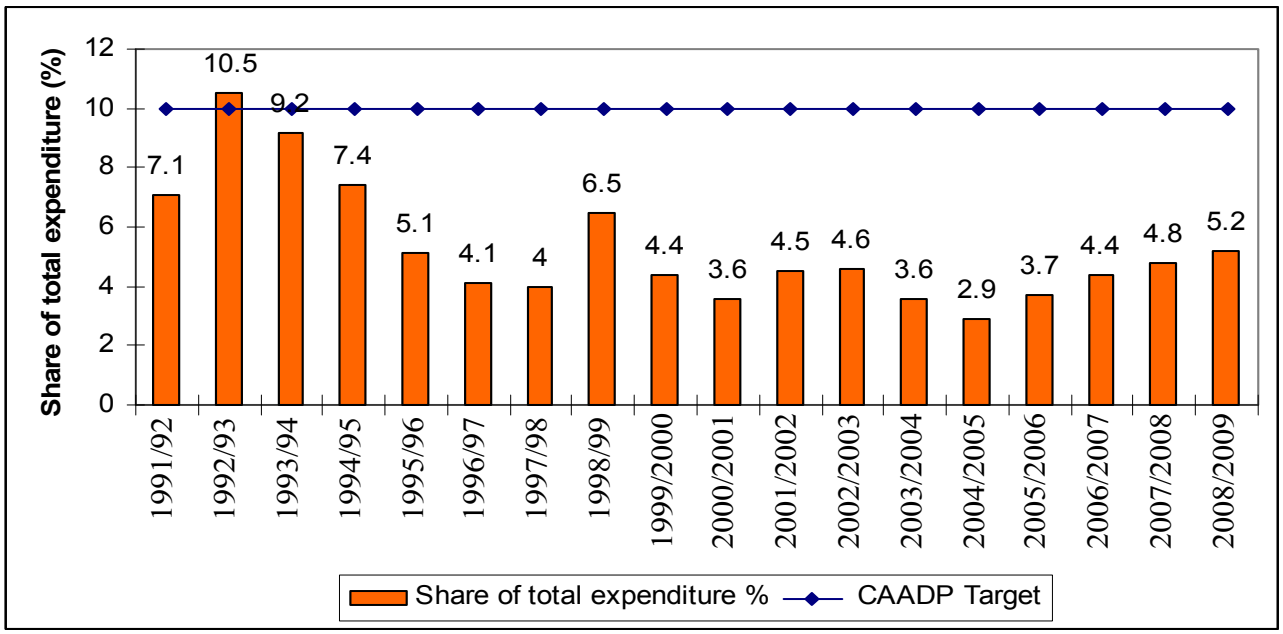
Figure 53: Public expenditure on agricultural development projects in Kenya, 1996/1997–2008/2009



Source: Development Expenditure Estimates Reports, Kenya (1996/1997–2006/2007), Republic of Kenya (2006b)

Although the total public expenditure in agricultural development in Kenya has been increasing in the last 12 years, the percentage share of agriculture out of the total government expenditure has indicated a fluctuating trend. Figure 55, shows that agricultural spending has fallen dramatically, having peaked around 10% in the early 1990s and dropping below 5 percent in recent years (Thurlow, Kiringai, and Gautam 2007). The financial year 2004/05 registered the lowest share of national development expenditure allocated to three agricultural ministries in Kenya (livestock, fisheries, and cooperatives) at only 2.9 percent (Figure 55, Table 22). However, since the year 2005 there has been some improvement in resource allocation to the sector. In the financial year 2005/2006 the government allocated 5.6% of its budget to agriculture and rural development ministries. The amounts increased to 6.7% and 7.8% in years 2006/2007 and 2007/2008 respectively (IEA 2008).

Figure 54: Trends of agricultural spending as a share of total expenditure in Kenya



Source: Thurlow, Kiringai, and Gautam 2007

Table 22: Expenditure by three agricultural ministries in Kenya (Kshs million)

	Actual					Projected			
	2000/01	**2001/2**	**2002/3**	**2003/4**	**2004/5**	**2005/6**	**2006/7**	**2007/8**	**2008/9**
Recurrent	5,438	5,485	5,869	6,404	6,236	8,304	10,497	11,096	11,997
Development	1,652	1,052	1,202	2,858	2,721	4,555	6,522	9,712	11,655
Total	7,090	6,537	7,071	9,262	8,957	12,859	17,019	20,808	23,652
Recurrent as % total	76.7%	83.9%	83.0%	69.1%	69.9%	64.6%	61.7%	53.3%	50.7%
Agric. As % total GoK expenditure	**4.2%**	**3.8%**	**3.8%**	**3.6%**	**2.9%**	**3.7%**	**4.4%**	**4.8%**	**5.2%**
Agric. As % total GDP	0.8%	0.7%	0.7%	0.7%	0.6%	0.8%	1.0%	1.1%	1.2%

Sources: GoK 2004d, 2006a, 2006b in Oxford Policy Institute 2007

Indeed, an incremental increase in public funding to the agricultural sector by 20% in the 2007/2008 financial year was widely cheered especially among the farming community as a sign of relief (Box 8). It is important to translate such budgetary proposals into actual monetary allocation for real development priorities in the sector. Rationalization and documentation of specific expenditures in other Ministries that address cross-cutting themes relevant to agricultural development (such as water provision, value addition, market infrastructure, transport systems, communications, extension, and training) is necessary to enable accurate assessment of the impact of investment in agriculture (Cabral 2007).

Box 8: Agriculture: Farmers welcome budget

Farmers in the North Rift region yesterday, welcomed the new Budget, which has increased allocation to agriculture by 20 per cent. The Kerio Valley Development Authority chairman, said the allocation of more funds to agriculture and development, will spur the country's economic growth.

"The allocation of more funds to the agricultural sector, will improve efficiency and increase production, as well as economic development, which are in line with the vision 2030," said the chairman.
Pyrethrum farmers in the region were also pleased with the allocation of KShs 664 million to settle arrears for their produce delivered to the pyrethrum board some years ago.

They said the payment will motivate them to invest in the production of the crop, which some of them had started up-rooting, due to non-payment of dues by the board. "We had lost hope in the cultivation of the crop and the release of money. But now, settlement of some arrears will install confidence in the sector".

But one former nominated Member of Parliament from the region, noted that the budget did not address the high cost of farm inputs and the escalating fuel prices. "Although the budget was generally fair, it did not address the high cost of fertilizer, and the introduction of the 20 per cent excise duty on imported spare parts will impact negatively on most farmers;" he said. The MP added that removal of value added tax on milk powder would not benefit dairy farmers and urged milk processing plants to increase milk prices.

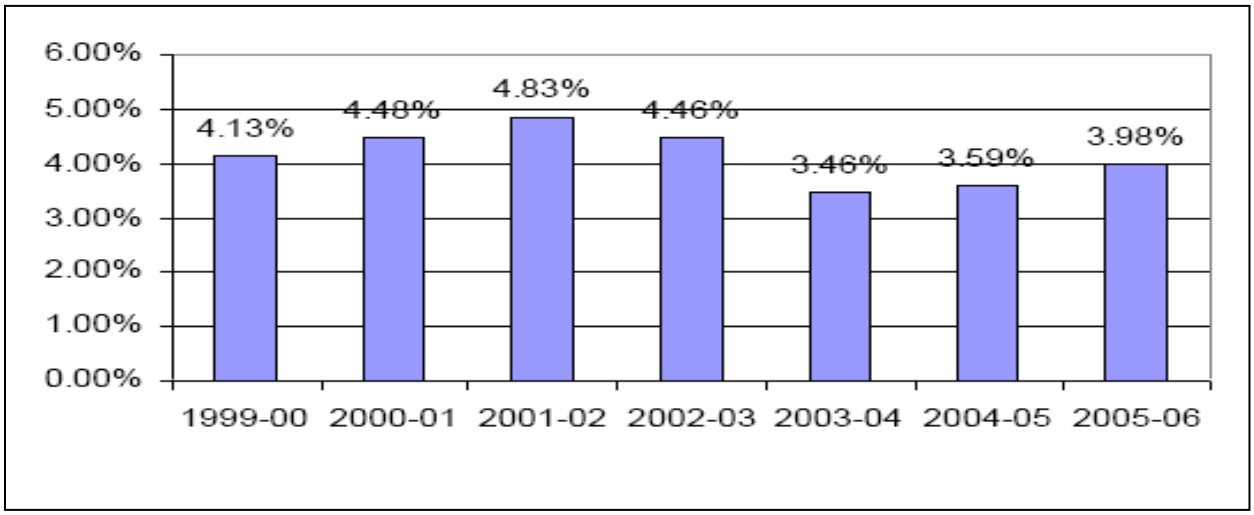
He observed that "the Government should also have considered lowering the prices of oil and petroleum products, especially diesel, to enable farmers to increase acreage under production".

Source: Adopted from Saturday Nation Newspaper, Nairobi, June 16, 2007, page 25.

iii) Expenditure in agriculture in Uganda

As is the case in the majority of the COMESA countries, Uganda's share of public expenditure in agriculture as a proportion of the total government expenditure has been low over the years, in most cases lower than 5% (contrary to the Maputo Declaration of 10% budgetary allocation). As shown in Figure 56, the highest share since 1999/00 was just under 5% in 2001/02 and the lowest at about 3.46% in 2003/04 (World Bank Uganda 2007). In 2006/07 the budgeted share was 3.5% and was projected to reach 5% in the subsequent financial years (Table 23).

Figure 55: Agriculture spending in Uganda (%) as a share of the total GoU budget



Source: World Bank Uganda 2007

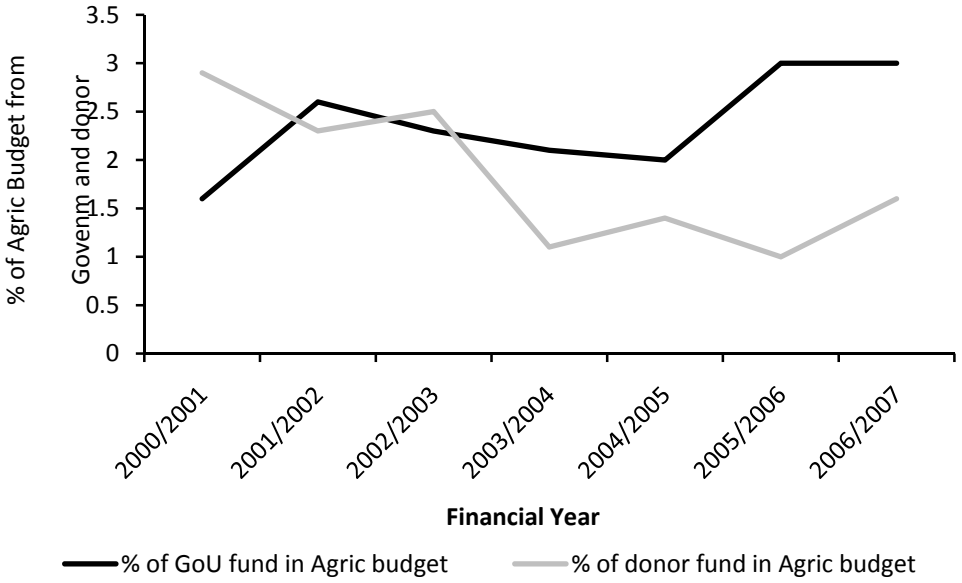
The share of donor funds in Uganda's national agricultural budget has been fluctuating. In the year 2006/07, the proportion of donor funds in the sector was about 1.7% of the total agricultural budget (Figure 57).

Table 23 : Agriculture spending in Uganda (Ush billion)

	2003-04 outturn	2004-05 outturn	2005-06 outturn	2006-07 budget	2007-08 projected	2008-09 projected
MAAIF						
Recurrent	5.32	9.54	9.17	9.72	12.14	14.20
Development	61.85	58.27	76.02	55.96	133.71	136.87
NARO						
Recurrent	1.90	1.92	2.80	2.84	2.85	8.86
Development	19.36	23.90	22.47	22.55	23.97	27.04
EXTENSION						
District grant	6.0	5.98	6.00	7.04	10.38	11.04
NAADS Development	8.96	14.49	24.75	37.13	37.63	45.13
NAADS Secretariat	0.00	0.00	4.96	9.81	9.81	9.81
Total Agriculture	**103.39**	**114.10**	**146.17**	**145.05**	**230.49**	**252.95**
Agric. Share of total GoU	**3.3%**	**3.4%**	**3.9%**	**3.5%**	**5.4%**	**5.6%**
Agric. Spend as % agric.	**2.7%**	**2.5%**	**3.0%**			

Source: Oxford Policy Institute 2007 based on MoF budget and expenditure data

Figure 56: Share of public and donor funds in Uganda's National Agriculture Budget, 2000/2001–2006/2007



Source: Oxford Policy Management 2007.

Government and donor investment to the Plan for Modernization of Agriculture

The plan for Modernization of Agriculture (PMA) is part of Uganda's PEAP. This framework aims at improving incomes, reducing food insecurity, creating gainful employment, and a good environment for sustainable natural resource management. The PMA is neither a project nor a program. It provides the principles and framework for the design and implementation of programs and projects that impact the agricultural based livelihoods. PMA receives funding from the government as well as from the donors to support various agricultural projects in the country. Because PMA activities contribute largely to agriculture and rural development, we include its expenditures in this discussion on expenditures for agriculture in Uganda.

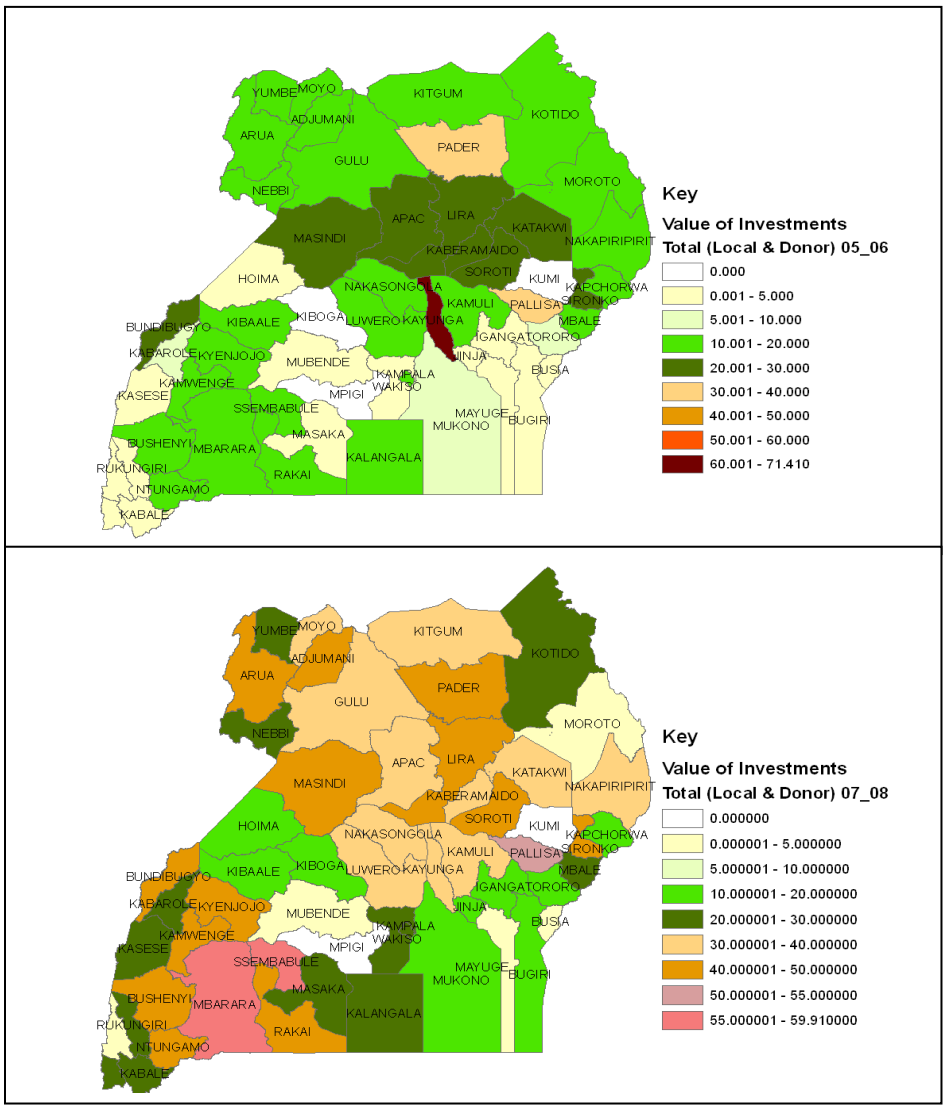
PMA evaluation found that recently PMA expenditures have accounted for around 10% of total government spending (Oxford Policy Institute 2007). The same was observed in the financial years 2001/02 to 2003/04 (Table 24). These figures are indeed higher than the expenditures in the core agricultural sector which has generally been only at around 3 to 4 percent as shown above.

Table 24: Breakdown of PMA actual expenditures (in Ush. billions)

	2001/02	2002/03	2003/04
MAAIF & NARO recurrent	5.5	6.6	6.6
PMA relevant projects	159.5	174.1	163.0
NAADS districts	**2.4**	**5.5**	**9.0**
LGDP (at 25% PMA relevant)	**11.2%**	**10.6%**	**16.3%**
Other PAF, not included above	59.7	62.6	75.4
Total	**238.4**	**259.4**	**270.3**
PMA share of total GoU	**11.2**	**11.0**	**10.2**

Figure 58, indicates the level of PMA investments at the district level in the 2005/2006 and 2007/2008 financial years respectively. From the two maps it can be observed that there was a general increase in agricultural investment in the year 2007/08 compared with the year 2005/06.

Figure 57: PMA local and donor investments in agriculture (in Ush billions) in Uganda in the years 2005/06 and 2007/08



6.2 Value Addition in Agricultural Inputs and Products

Indicator 1: *Value added in agriculture (% of GDP)*

As economies grow, the contribution of primary industries (such as agriculture, forestry, and fisheries) to national incomes is expected to decline. This marks a process of structural transformation in which the industrial sector (whether agro-based or non-agricultural) plays an increasingly significant role in economic development. A balanced and sustainable development requires that the decline in primary agriculture's contribution to national income must be

accompanied with overall welfare improvement. This is characterized by a reduction in the proportion of livelihoods dependent on agriculture and significant decline in poverty among previously agrarian households. A gradual transformation has been witnessed in some COMESA countries where the share of agriculture in GDP has gradually declined from 1990 to 2006. The countries with decline include: Egypt, Sudan, Eritrea, Kenya, and Malawi (Table 25).

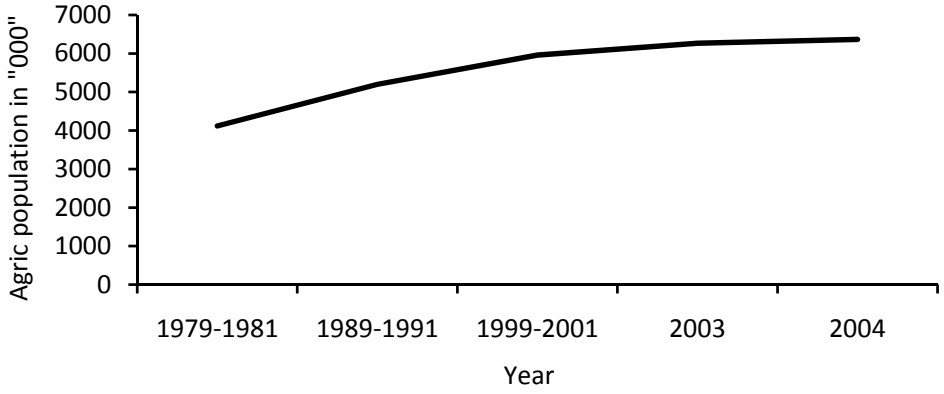
Table 25: Value added in agriculture (% of GDP) in COMESA

Country	1990	2003	2004	2006
Burundi	56	49	51	35
Comoros	39	41	41	
D RC	31	58	-	46
Djibouti	3	4	-	
Egypt	19	17	15	15
Eritrea	31	14	15	17
Ethiopia	49	43	47	48
Kenya	30	28	27	28
Madagascar	29	29	29	28
Malawi	45	40	39	36
Mauritius	13	6	6	-
Rwanda	33	41	40	41
Seychelles	5	3	3	-
Sudan	71	8.2	10.6	31
Swaziland	13	12	13	-
Tanzania	22.4	5.7	4	45
Uganda	57	32	32	32
Zambia	21	23	21	16
Zimbabwe	16	16	18	22
COMESA	**30.71**	**24.73**	**24.21**	

Source: The World Bank 2006, The World Bank 2007

However, the agriculturally-dependent population in the region exhibits a reverse trend. Contrary to the expectations from structural transformation processes, the population that derives their livelihoods from agriculture continues to rise over time (Figure 59). On average, over 65% of the economically active population in COMESA depends on agriculture. Swaziland has the lowest dependence on agriculture (5%), while in Burundi and Rwanda close to 91% of the economically active population are supported by agricultural incomes.

Figure 58: Economically active population in agriculture in COMESA

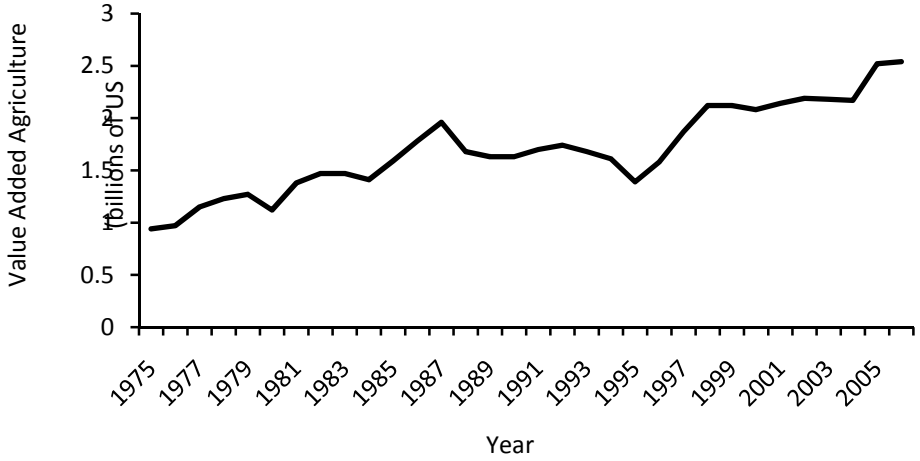


Source: FAO 2007

Indicator 2: *Value added agriculture in COMESA (in billion US $)*

In monetary terms, the COMESA region has generally recorded some growth in value added agriculture, from 0.94 billion US$ in 1975 to 2.54 billion US$ in 2006 (Figure 60). The average value added agriculture in the region is about 1.71 billion US$. Seychelles has the lowest value added agriculture with only 0.01 billion US$, while Egypt leads with 8.23 billion US$.

Figure 59: Trends in the value added agriculture in COMESA, 1975 - 2006



Source: World Bank 2007, World Development Indicators database

Indicator 3*: Growth of value addition in agriculture*

Annual growth rates in agriculture value addition for the period 2003–2005 at the country level for the countries in the region is presented in Figure 61. Burundi, Seychelles, and Zimbabwe experienced negative growth rates in the agricultural value addition for the three years. Ethiopia and Mauritius had negative rates in the year 2003 but later improved to have positive rates in the

subsequent years. Malawi has positive growth rates in the years 2003 and 2004 respectively, but had a major reduction to a growth rate of -9.1 % in the year 2005. Other countries have had positive growth rates (with different magnitudes) in the three years. Eritrea has been leading with consistently positive and higher growth rates as compared with other COMESA countries. Data were not available for Djibouti, Libya, and Sudan, for the period under discussion.

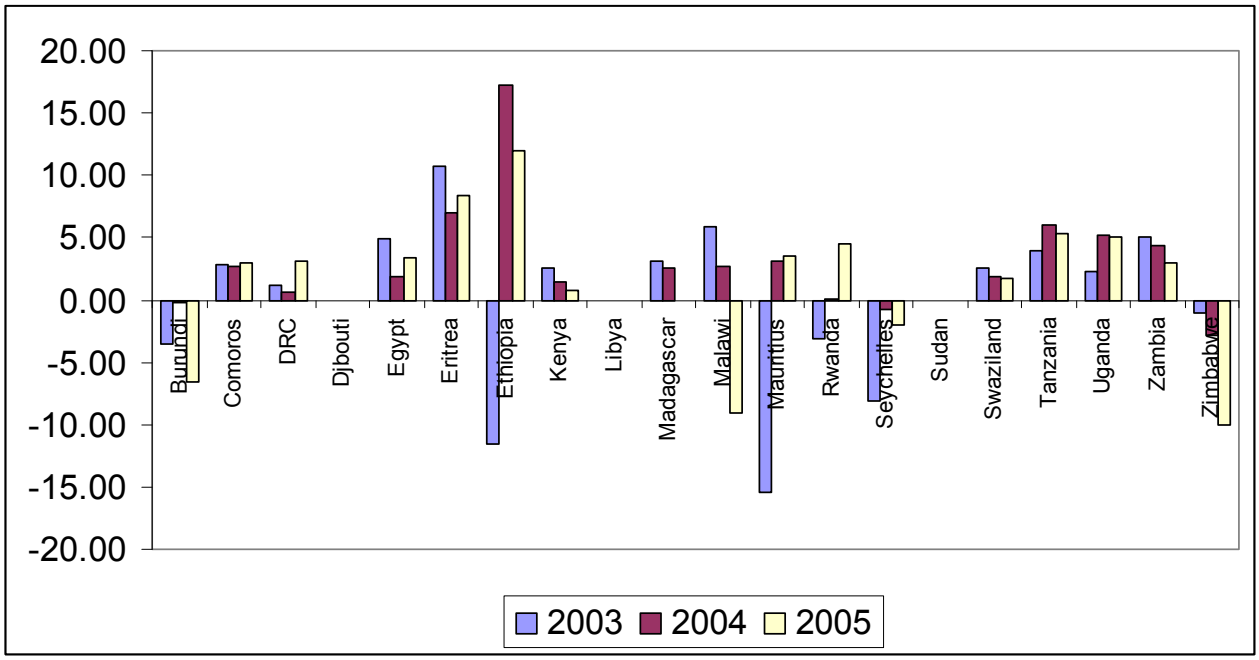


Figure 60: Growth rate as a percentage in agriculture value addition, 2003–2005
Source: AfDB 2007

7. Trade in COMESA

COMESA forms a major market place for both internal and external trading with its 19 member states, population of over 389 million and an annual import bill of around US$32 billion with an export bill of US$82 billion. Its area on the map of the African Continent covers a geographical area of 12 Million (sq km) which is a wide trade area. COMESA now has a Common External Tariff structure of a four band and is set to attain Customs Union by 2009. In addition, member States have agreed on the need to complete the programs on trade to enhance growth of all the COMESA economies. The implementation of a number of trade facilitation measures in the areas of customs and the elimination of technical barriers to trade are making the conduct of trade amongst COMESA member states much easier. These represent concrete, practical, and business friendly initiatives designed to lower the cost of doing business in the region. Among the region's trade facilitation measures is the Customs Union which is expected upon full implementation to consolidate the benefits to be reaped by member states within and without the region. It would considerably improve investment conditions within the region and lead to enhanced influx of foreign direct investment and deeper integration into the world. Other benefits of regional trade include the potential that citizens of member countries will share the benefits of integration and enjoy higher standards of living, as well as increased social and political stability (Ngandu,2007). This section of the report thus focuses on various trade related indicators and their performance in the COMESA region.

Indicator 1*: Import-Export trade documentation*

Documentation of trade flows (imports and exports) is very essential in order to track commodity demand and supply trends, as well as business growth in any region. The number and types of trade documents required for clearance on the international front may act as a barrier or catalyst for commodity exchange. On average, import and export trade clearance in COMESA requires 13 and 10 documents, respectively. Rwanda has the highest number of import document requirements (standing at 20), while Seychelles has the least with only 7. In terms of export documentation, Zambia has the highest number of requirements/procedures compared to Tanzania, which only has 3 (Table 26).

Table 26: Number of import-export documents required in COMESA trade

Country	Documents for import (number)	Documents for export (number)
Burundi	14	12
Comoros	8	9
Congo (DRC)	12	8
Djibouti	14	15
Egypt	8	8
Eritrea	18	11
Ethiopia	11	8
Kenya	9	11
Libya*	N/A	N/A
Madagascar	11	8
Malawi	16	8
Mauritius	7	5
Rwanda	20	14
Seychelles	7	6
Sudan	13	12
Swaziland	14	9
Tanzania	10	3
Uganda	19	12
Zambia	19	16
Zimbabwe	15	9

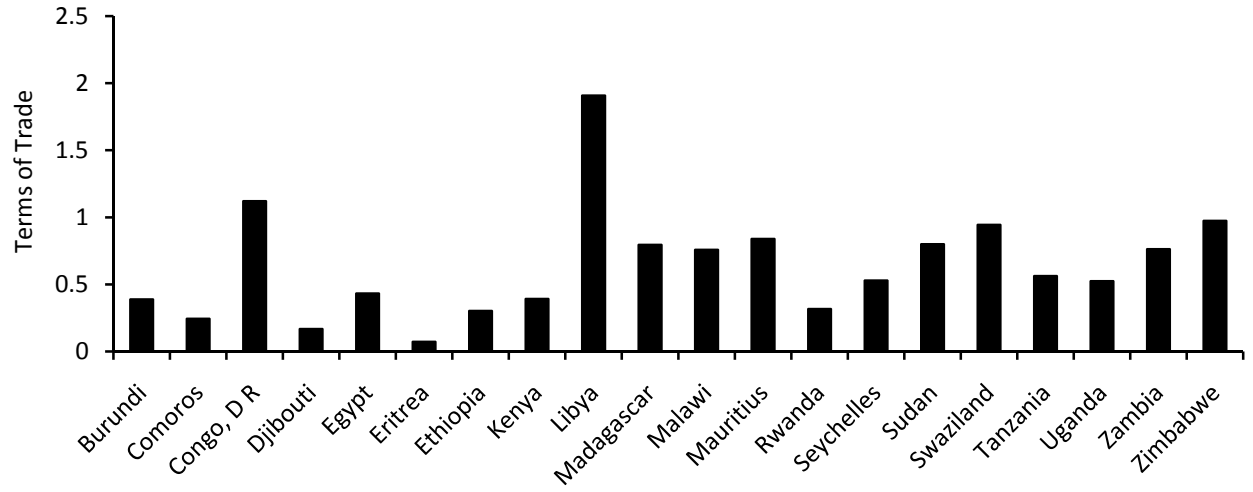
Source: AFDB 2007. Selected Statistics from African Countries.
*no data was available for Libya; N/A = Not applicable

Indicator 2*: Terms of Trade*

The Terms of Trade (ToT) measures the relative economic gains earned or losses incurred by a country from international trade. ToT is the ratio of the value of export earnings to expenditure on imports, expressed in foreign currency. For as long as trade takes place, the ToT must be a positive coefficient that could be less than, equal to, or greater than one. When a country's ToT is less than one, the country losses from international trade as export earnings are insufficient to finance imports. In such instances the imports are financed through borrowed funds. A country neither gains nor loses if its ToT is one, as it simply balances its trade accounts. Beneficial participation in trade occurs when the ToT exceeds one. The COMESA region is generally a net importer, with average ToT of 0.64 for the period 1996–2005. Only two oil-rich countries in this trading bloc

have ToTs that exceed one, Libya with 1.9 and DRC with 1.12 (Figure 62). This shows that there is a need to improve the productivity of all sectors in COMESA member countries especially the agricultural sector.

Figure 61: Terms of Trade for COMESA countries, 1996–2005

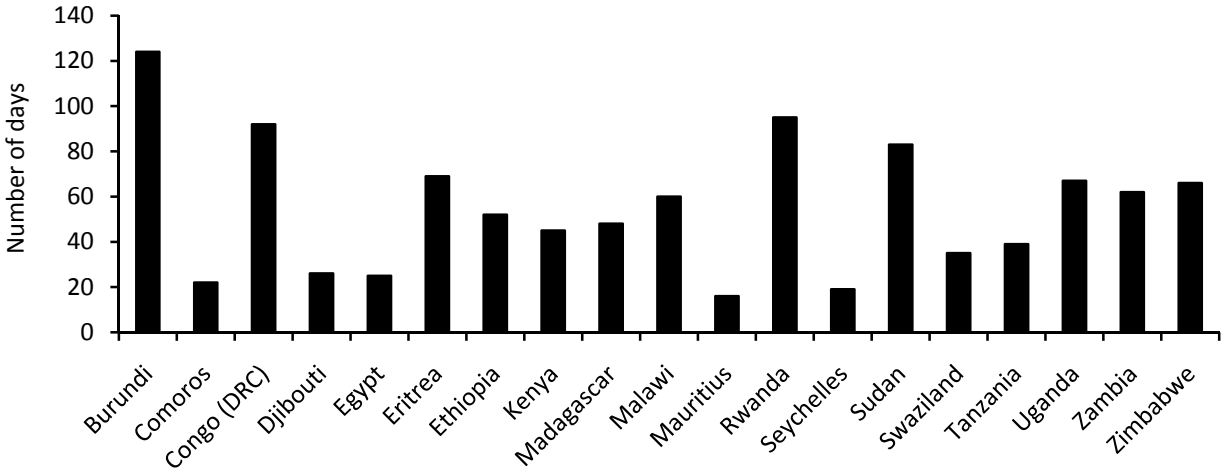


Source: AfDB 2007

Indicator 3: *Time required to process cross border trade documents*

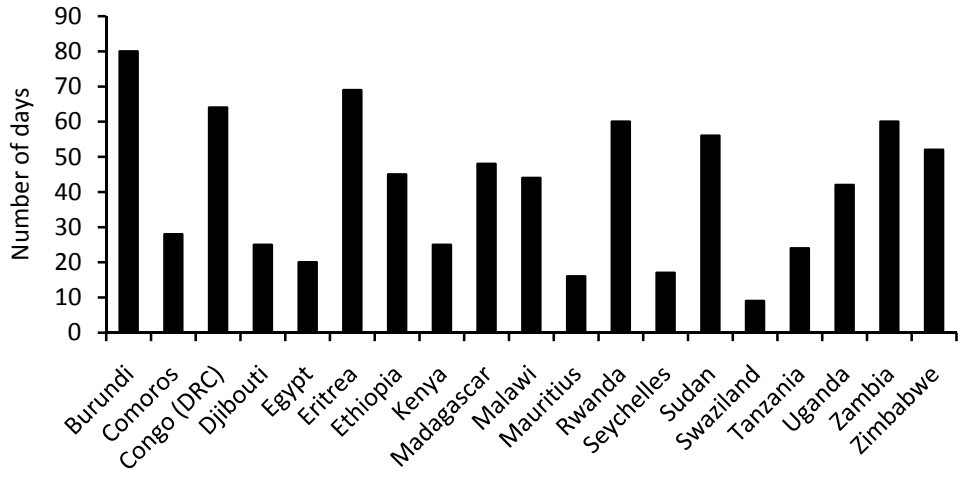
It takes on average 55 days to process import documents in the COMESA region and 41 days to process export documents. Mauritius, where documentation processing is fastest, takes 16 days to process import documents, while Swaziland takes the minimum period (9 days) to prepare export related documents. Burundi is characterized by the longest durations for preparation of both import and export documents with 124 and 80 days respectively (Figures 63 and 64).

Figure 62: Time (days) taken to process import documents in COMESA countries



Source: AfDB 2007

Figure 63: Duration (days) required for preparing export documents in COMESA countries



Source: AfDB 2007

The long duration required to process trade documents, as indicated in Figures 63 and 64, implies that there is need for removal of technical barriers to trade, particularly those related to documentation in order to boost trade in the region. However, other barriers to trade such as high transportation costs due to poor roads, and high fuel costs among others, will also need to be addressed.

Exports are essential for economic development. However, infrastructural constraints continue to bedevil efforts aimed at improving export performance (Box 9).

Box 9. Governments blamed for poor growth

The World bank notes that Sub-Saharan Africa governments are trailing behind on almost forms of infrastructural projects and growth in the continent is low and highly volatile than in any other region. A recent World Bank report indicates that Sub-Saharan Africa lags by at least 20 per cent behind the poor developing countries' average on major infrastructure measures. It points out that there is an increasing disparity in Africa in terms of growth rates and per capital income. It identifies stronger and diverse export growth as a key factor needed to sustain growth and reduce uncertainty in Africa. The report estimates that Africa's unfinished infrastructure requires about $39 billion, including operations and maintenance. "While efficient African enterprises can compete with Indian and Chinese firms in terms of factory costs, they become less competitive due to higher indirect business costs, including infrastructure," says the report. The report however notes that 38 countries grew their exports, while export volumes rose from $182 billion in 2004 to $230 billion in 2005. It points out a number of driving force for this including; a)growing pockets of non-traditional exports such as clothing from Lesotho, Madagascar and Mauritius, b) successful connection between farmers and buyers, such as the initiative that boosted Rwanda's coffee export to the USA by 166 per cent in 2005 and c) aggressive expansion of successful exports such as cut flowers whose exports from Kenya more than doubled between 2000 and 2005, making the crop the country's second export earner after tea. The report focuses on productivity and investment as key drivers of growth. Despite the low growth rates, the report says many African economies are moving towards faster and steadier economic growth needed to reduce high poverty levels. The report notes that there was solid economic performances across Africa between 1995 and 2005 contrasts the economic collapse between

1975 and 1985. **Source:** The Standard Newspaper, Nairobi; Thursday, December 6, 2007, page 24.

Indicator 4: *Participation in world trade by COMESA*

i. Cereals

Among all the cereals, the COMESA region exports more rice, contributing 0.35% of world rice exports (Figure 65).

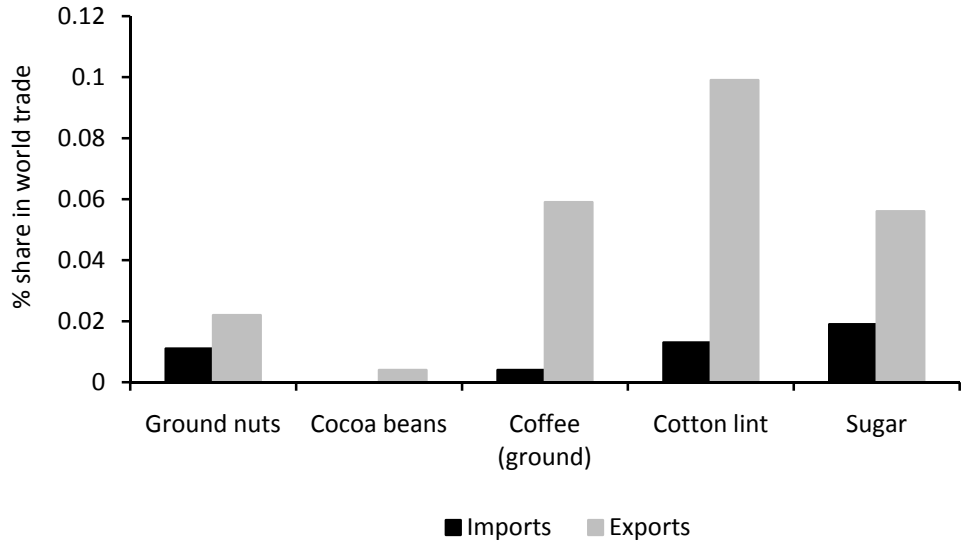
Figure 64: Cereals trade in COMESA

Source: FAOSTAT 2007

ii. Cash crops

The main cash crops in COMESA are coffee, sugar, and cotton lint. The region produces between 0.06 to 0.15% of world exports of these commodities (Figure 66).

Figure 65: Trade on the main cash crops in COMESA

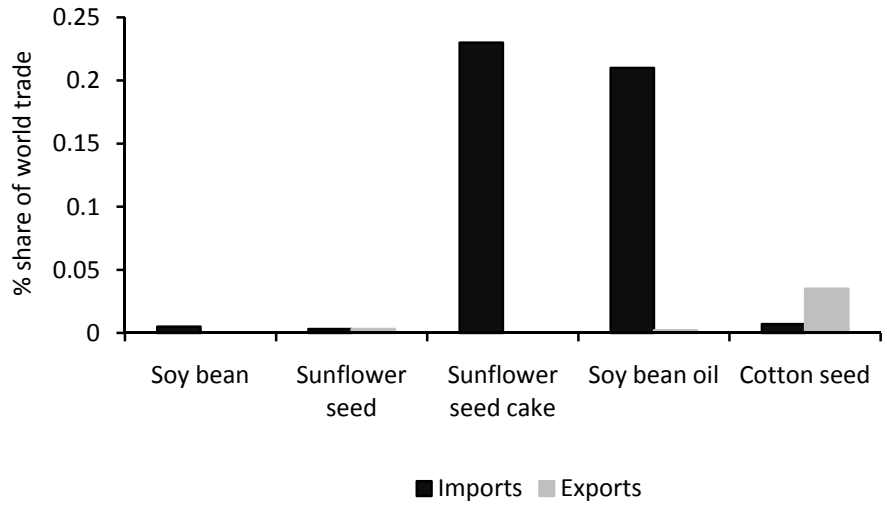


Source: FAOSTAT 2007

iii) Oil seeds

In the oil seeds category, imports of sunflower seed cake and soy bean oil are higher than both export and import trade in other oil crops (Figure 67).

Figure 66: Oil seeds trade in COMESA

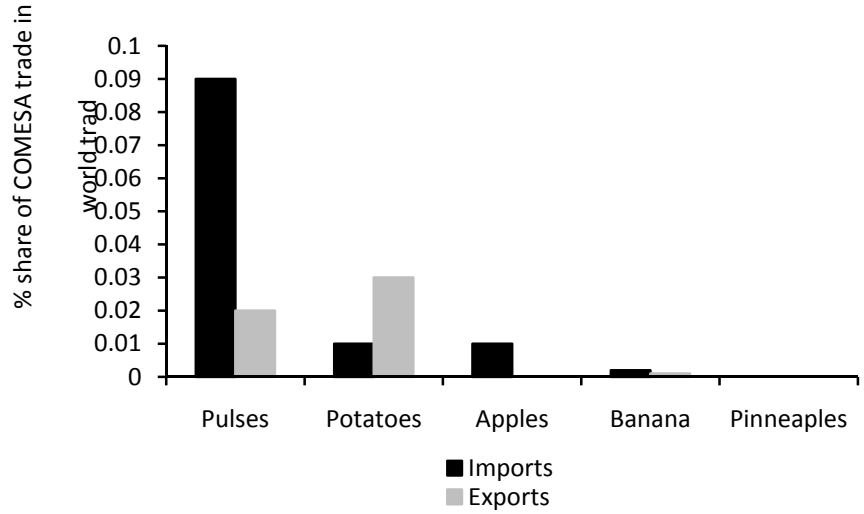


Source: FAOSTAT 2007

iv) *Pulses and other crops*

The COMESA region accounts for 0.01 to 0.09% of world imports of potatoes, pulses, apples, bananas, and pineapples. The share of exports of these commodities is however less than 0.03% of world exports (Figure 68).

Figure 67: Pulses and other crops trade in COMESA as % of world trade



Source: FAOSTAT 2007

Finally, COMESA's share of meat and milk imports in world trade were 0.006% and 0.015% respectively. Tea and tobacco exports were 0.182% and 0.037% in world exports.

Indicator 5: *Share of food exports in total merchandise*

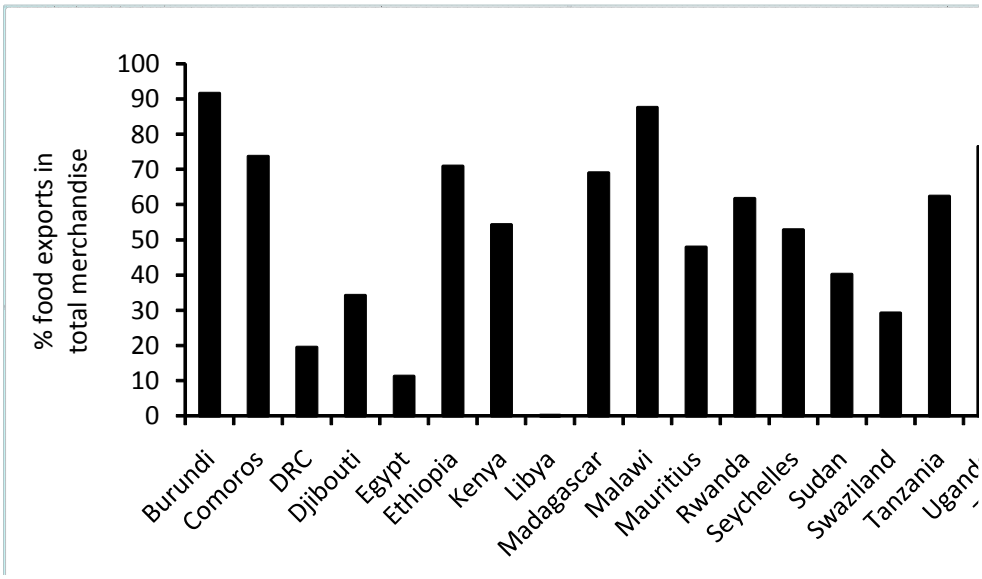
The share of annual food exports in COMESA's total merchandise trade has been on average 48.7% in the last three and a half decades (Figure 69).

Figure 68: Trends in the share of food exports in COMESA's total merchandise trade, 1970–2005

Source: World Bank 2007.

Libya has had the lowest share (0.11%), while Burundi's total export merchandise consists mainly of food (91.6%) (Figure 70).

Figure 69: Food exports as % of total merchandise in COMESA member states (average 1970–2005)

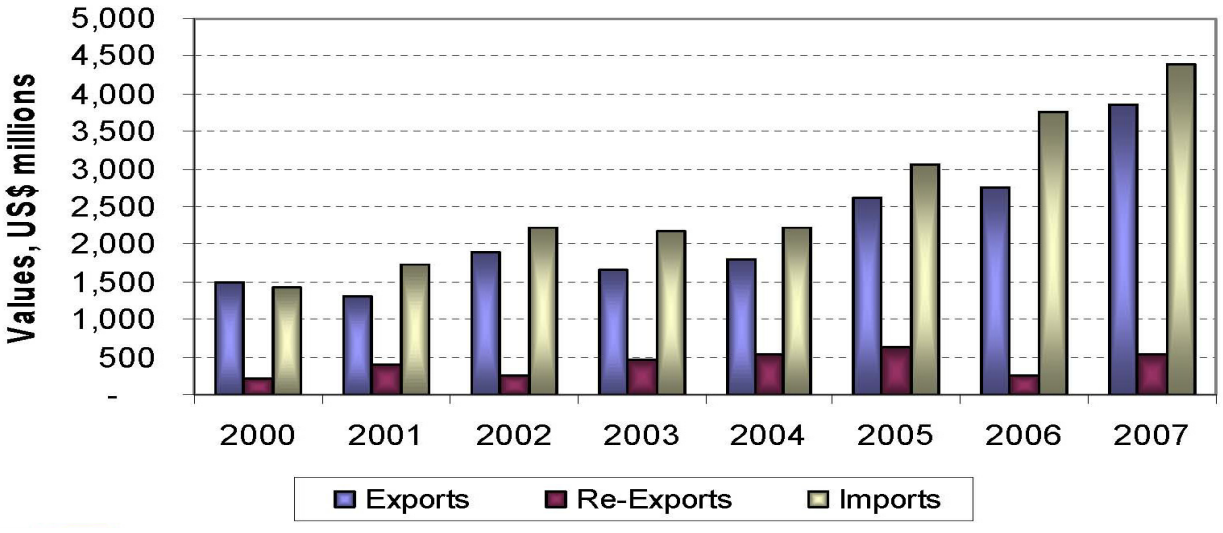


Source: World Bank 2007.

Indicator 6: *Intra–COMESA trade*

Figure 71 shows that total intra-COMESA trade almost tripled from US$3 billion in 2000 to approximately US$8.8 billion in 2006. This is a positive indicator of the countries' increased preference for exploitation of regional markets, largely as a result of trade preferences. Figure 71 also shows that intra-COMESA trade has been growing at over 25% per annum for the last 5 years, with 2003 trade amounting to $5.3 billion. The growth in intra-COMESA trade is also indicated in Box 10. This is anticipated to accelerate further with the introduction of the Customs Union in December 2004 (www.comesatradehub.com). Yet intra-COMESA trade constitutes a small percentage of the global trade of these countries. The Free Trade Area provides opportunities to increased trade between member countries with the 13 FTA members accounting for 87% of COMESA aggregate GDP. There is a lot of potential to increase intra-COMESA trade under the FTA as analysis shows that there are still large volumes of exports outside COMESA that are also imported from outside the region. Free trade is key for the promotion of intra-COMESA Trade. However, the COMESA Treaty recognizes that member countries can suffer adverse effects and allows exceptions, in some instances, namely: emergency measures to limit imports temporarily, to "safeguard" domestic industries, actions taken against dumping (selling at an unfairly low price), subsidies, and "countervailing" duties to offset export subsidies. In addition to the safeguard, the COMESA customs union provides member states with policy space that allows them to put in place measures that will protect their countries from any adverse effects that may be associated with the customs union. This therefore implies that Kenya, for example, can protect high fragile industries such as the sugar industry by invoking such measures as high tariffs or quotas on importation of such products. On the other hand, the informal sector traders are increasingly becoming important agents of intra-COMESA trade (Ministry of Trade and Industry, COMESA Desk, Kenya).

Figure 70 Value of intra-COMESA trade 2000-2007



Source: Ngone A. 2008

Box 10: Growth in intra COMESA trade

Common Market for Eastern and Southern Africa (COMESA) intra-trade has more than doubled to nearly US$ 7 billion since the launch of the COMESA Free Trade Area (FTA) in 2000. According to the latest e-COMESA publication, the increase was largely as a result of duty and quota free entry for goods that qualified for duty exemption under the FTA.

To date, the COMESA trade regime has benefited commercial traders who have the capacity and resources to go through the rigorous exercise of obtaining the necessary certification for goods to qualify for duty and quota free entry into the COMESA market.

The publication says the trade arrangements had, however, left out a large and growing segment of cross border traders who were engaged in what has been termed informal or even illegal trade. Cross border traders are compelled to pay duty on COMESA originating goods, which should otherwise be duty-free, because of the inability to obtain the obligatory documentation to enable them to qualify for duty-free status.

The bulletin said the inability to obtain such documentation was often because the documentation was issued in the capital cities and large commercial centres, away from where the cross border trade was conducted. It said the process was not only expensive, but also inaccessible to small traders.

Last month, representatives from Burundi, Democratic Republic of Congo (DRC), Malawi, Zambia and Zimbabwe called for the speedy implementation of the Simplified Trade Regime (STR) being promoted by COMESA member countries. The COMESA STR would introduce a Simplified Customs Document (SCD) and a Simplified Certificate of Origin (SCO), making it automatic for goods which are COMESA originating and whose value did not exceed US$500 per consignment, to qualify for duty free entry.

Source: Times of Zambia, Posted by Africa News Network at Sunday, September 16, 2007

Table 27 below also confirms the continuous increase in intra-COMESA trade among the various countries.

Table 27 COMESA intra-trade by country in US$

Country	2004	2005	2006	2007	% year 2007
EXPORTS					
Burundi	7,789,181	14,520,315	23,374,162	36,638,868	0.93
Comoros	56,026	107,352	696,455	191,936	0.00
Congo DR	30,542,670	38,799,612	68,755,544	188,074,304	4.76
Djibouti	8,406,079	62,761,148	7,771,161	31,718,944	0.80
Egypt	23,138,6656	431,428,960	505,690,592	49,425,8272	12.51
Eritrea	639,434	11,587,854	2,628,538	634,8007	0.16
Ethiopia	18,163,628	95,033,464	100,033,752	123,787,312	3.13
Kenya	529,144,512	866,943,168	911,248,640	1,114,269,312	28.21
Libya	33,928,024	115,658,024	105,250,824	153,549,984	3.89
Madagascar	41,360,300	20,177,418	22,146,442	31,719,678	0.80
Malawi	100,813,464	44,722,488	76,333,872	183,749,696	4.65
Mauritius	57,102,752	56,056,960	57,081,568	75,384,808	1.91
Rwanda	26,788,146	28,679,254	36,247,420	50,718,176	1.28
Seychelles	343,858	567,371	516,474	718,229	0.02
Sudan	63,709,168	57,823,380	87,695,776	29,665,062	0.75
Swaziland	106,366,568	95,014,408	162,646,016	191,064,704	4.84
Uganda	146,387,280	181,272,928	234,158,944	367,177,152	9.30
Zambia	269,294,336	327,989,600	276,676,736	612,246,976	15.50
Zimbabwe	131,537,776	166,070,224	83,299,120	258,593,632	6.55
Total exports	**1,803,759,856**	**2,615,213,948**	**2,762,252,046**	**3,949,875,115**	**100.00**
IMPORTS					
Burundi	46,218,296	53,869,768	68,277,184	175,406,480	3.85
Comoros	7,662,386	6,550,834	15,170,684	2,786,417	0.06
Congo DR	277,221,728	188,221,056	350,235,232	665,789,184	14.62
Djibouti	30,978,708	83,970,936	8,408,695	108,041,200	2.37
Egypt	188,218,720	298,539,712	266,440,560	312,240,384	6.86
Eritrea	3,240,608	15,511,691	26,617,034	4,888,595	0.11
Ethiopia	47,900,996	192,096,976	391,135,168	213,664,016	4.69
Kenya	173,671,184	175,744,944	243,324,976	428,333,440	9.41
Libya	80,153,448	166,344,704	211,902,352	278,526,304	6.12
Madagascar	86,240,160	101,355,016	71,738,072	122,843,080	2.70
Malawi	74,266,528	177,637,152	180,927,280	140,007,392	3.07
Mauritius	85,279,840	72,801,368	99,054,656	120,808,360	2.65
Rwanda	33,619,240	141,026,624	336,887,008	264,882,640	5.82
Seychelles	22,575,292	20,982,414	23,749,868	25,953,412	0.57
Sudan	350,474,752	477,127,200	651,017,536	441,136,672	9.69
Swaziland	283,333	8,678,365	10,841,609	25,480,772	0.56
Uganda	435,824,128	564,998,848	450,443,104	515,939,776	11.33
Zambia	201,548,480	246,388,096	310,657,280	394,558,528	8.67
Zimbabwe	77,759,288	61,306,680	50,215,528	312,172,992	6.86
Total imports	**2,223,137,123**	**3,053,152,359**	**3,767,043,855**	**4,553,459,616**	**100.00**

Source: COMSTAT database at http://comstat.comesa.int/ Accessed in May 20th, 2009

8. Summary, Conclusion, and Policy Recommendations

This trend report provides an overview of the performance of different agricultural and rural development indicators in the COMESA member countries. The presented country level indicators are intended to provide the member states with information that can be used in assessing their performance in comparison with their peers. A report such as this one is also a useful tool for providing baseline data as well as tracking progress towards CAADP, MDGs, as well as country development targets.

The report has reviewed various indicators on socio-economic and development, food production, food security, agricultural input utilization, agricultural performance, expenditures, as well as trade related indicators. Variations in the performances of indicators among the member states observed in the data illustrate the heterogeneity of the COMESA countries. Below is a summary of some key aspects.

a. Geography and demography

COMESA member states include three of the four largest (in size) African countries (Sudan, Congo DRC, and Libya) and three of the four smallest ones (Seychelles, Mauritius, and Comoros). COMESA also includes three of the four countries with the highest number of people (Egypt, Ethiopia, and DRC), and the least populated one (Seychelles). All member countries (except Zimbabwe, Mauritius, and Seychelles) have growth rates higher than the World's average of 1.2. Eritrea, Uganda, and Burundi have the highest growth rates, while Zimbabwe and Seychelles have the lowest rates, with 0.6 percent and 1 percent respectively. Eritrea has the highest population growth rate of all COMESA countries. Mauritius is the most densely populated, followed by Comoros, Rwanda, Burundi, Seychelles, Uganda, and Malawi. Libya has the lowest population density.

b. Income and economic development

Poverty and poor economic conditions are common in the majority countries in the region. There are only a few of the member states that can be categorized as high human development countries. For example, based on HDI and GDP per capita, Seychelles, Libya, Mauritius, and Egypt are countries with relatively high economic conditions in the region. Poverty is very high in Burundi, DRC, Ethiopia, Kenya, Madagascar, Malawi, Rwanda, Swaziland, and Zambia. In these countries more than 40% of the population falls below the national poverty line. The HPI indicator shows that Ethiopia has the highest values (with 54.9%) followed by Zambia (41.8%) and Zimbabwe (40.3%). In all other countries (except Djibouti and Egypt), HPI ranges from 30-39 percent. Egypt has the lowest HPI of 20 percent. Recent data indicate that Egypt and Sudan have the highest GDP. With regard to the GDP growth rates, seven years averages (from the year 2000 to 2006) were in the range of 2-4.5% in the majority of countries. Sudan, Uganda, Ethiopia, Rwanda, and Tanzania were the only countries that attained an average annual growth in GDP greater than 5 percent. Slowest growth rates occurred in Burundi (2.5%) and Madagascar and Eritrea (both 2.7%).

c. Food production and food security

Food insecurity is persistent in the COMESA region. Only five countries (Egypt, Libya, Mauritius, Seychelles, and Uganda) meet the daily recommended amount of calorie intake. All other member countries consume less than this amount. Eritrea, DRC, Comoros, and Ethiopia have the highest deficit in calorie consumption. GHI figures for the year 2007

indicate that hunger remains a big challenge for the countries in the region. Thirteen countries (including Burundi, Comoros, DRC, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Rwanda, Sudan, Tanzania, Zambia and Zimbabwe) have GHI values greater than 20. Such high values represent alarming and extremely alarming hunger situations. A comparison of GHI values for the years 1990 and 2007 indicates that hunger has actually increased in the DRC, Burundi, Swaziland, Comoros, and Zambia. Furthermore, the GHI progress indicator (GHI-P) for the year 2007 indicates that the COMESA region is not making much progress in combating hunger. GHI-P values show that the majority of countries in the region fall in the categories of extremely negative, negative, or stagnating states as far as progress in fighting hunger is concerned. Data in this report also indicate that malnutrition among the children in the region is still a serious problem. This situation is likely to be aggravated by the high food price crisis.

d. Agricultural input utilization and technology adoption

In terms of land area under agricultural production, Eritrea, Rwanda, Burundi, and Swaziland are leading. Each has more than 70% of their land under agriculture. On the other side, countries with a small proportion of agricultural land under agriculture (less than 40%) include: Egypt, Libya, DRC, and Ethiopia. Fertilizer use is very low in COMESA, as only two countries (Egypt and Mauritius) consume more than the world average fertilizer consumption (96Kg/ha). Several countries in the region are among the ones with the lowest fertilizer consumption in the world. For example in the year 2002, DRC, Uganda, Tanzania, Burundi ,Comoros, Seychelles, Madagascar, Sudan, and Eritrea consumed less than 10kg/ha. Despite the potential to increase agricultural productivity through irrigation, only three countries (Egypt, Madagascar, and Swaziland) have more than 20% of their arable land under irrigation. The proportion of arable land under irrigation in Burundi, Kenya, Malawi, Rwanda and Zambia is very small (almost 0%).

In the light of the differences in the performance of monitoring indicators among the countries in the COMESA region this report highlights two key messages: 1) Regional policy measures will be more beneficial if designed based on the understanding of the existing diversity while making efforts to harness the associated advantages; 2) The need for development players and policy-makers to appreciate that there is a lot to learn from successes and failures of countries in the region. These two points are discussed below.

1. Harnessing the advantages associated with regional diversity

Development policy interventions in the region are likely to yield high impact if designed and implemented based on a solid understanding of the broad diversity in the region. Policy planning to design measures that harness the benefits of regional diversity will be useful. Despite the unfortunate fact that several countries in the region are similar in having poor performance in indicators such as: food security, socioeconomic development, agriculture performance and others, the regions' diversity in the areas such as structure of the economies, seasonality, and other characteristics could be advantageous to the member countries. The advantages can be harnessed through various ways including: i) Increased access to goods and services as a result of varied comparative advantage among the member states. Here countries may benefit from intensifying production in areas where they are best positioned and increased production will create more job opportunities; ii) Increased market opportunities for agricultural products due to the existence of economies that are generally service economies and food importers in the region. (including Eritrea, Djibouti, Seychelles, Zambia, and Mauritius); iii) Offsetting food surplus and deficits through regional trade. Due to regional variations in seasonality and rainfall patterns some

countries tend to have more produce while others are facing shortages. Policy instruments to take advantage of that will help reduce hunger and boost income in the region.

2. Use knowledge to learn from peers

Several agriculture and development initiatives have taken place in the region over decades. These could provide a good basis for learning from success and failure stories. There is a lot to learn from experiences within the region, either "good" or "bad" ones, as they both provide key information for design and implementation of agricultural policy and development programs. It is increasingly becoming common to refer to Asia where learning in agricultural development is concerned. While this report does not mean to criticize that, it argues that much can also be learnt from within the region if knowledge management and learning initiatives are designed and their products used in informing policy and development decisions. This calls for good documentation of lessons as a component in development monitoring. There are already some positive trends towards that. For example, the Kenyan Minister for agriculture recently visited Egypt to learn how that country is able to produce a lot of food despite her arid climatic conditions. Similarly, the case of agricultural input delivery by the Malawian government is also being used as a lesson in the region. There have also been a number of success stories on the usefulness of paravets and Community Based Animal Health Workers (CAHWs) in animal health interventions in various countries in the region (including Kenya, Ethiopia, and Uganda) and the value of Farmers' Field Schools in training farmers on better farming methods such as conservation farming in Zambia. These are just some of the examples and there are many more. Information on indicator performance for the countries in the region, as presented in this report, is one step in the collation of regional experiences. Trend data provide initial information on outcomes of development interventions, this can then be complemented by detailed information on what might have happened within the countries (or even outside) to cause the good or bad trend being observed.

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Appendix 1: Irrigation Statistics for COMESA

Table A: Irrigated land as a percentage of the total land area in the COMESA countries

Countries	1970–74	1975–79	1980–84	1985–89	1990–94	1995	2000	2002	2003	2004
Burundi	0.5	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8	0.8
Comoros	-	-	-	-	-	-	-	-	-	-
Congo, D R	0	0.002	0.003	0.004	0.005	0.005	0.005	0.005	0.005	0.005
Djibouti	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Egypt	2.84	2.44	2.49	2.57	3.24	3.28	3.29	3.42	3.42	3.42
Eritrea	-	-	-	-	0.19	0.19	0.18	0.18	0.18	0.18
Ethiopia	0.13	0.13	0.13	0.13	0.26	0.26	0.26	0.26	0.26	0.26
Kenya	0.07	0.07	0.07	0.09	0.12	0.12	0.15	0.16	0.18	0.18
Libya	0.11	0.13	0.17	0.21	0.27	0.27	0.27	0.27	0.27	0.27
Madagascar	0.73	1.04	1.35	1.7	1.85	1.85	1.85	1.85	1.85	1.85
Malawi	0.09	0.15	0.15	0.17	0.24	0.25	0.46	0.47	0.47	0.47
Mauritius	7.4	7.8	7.8	8.3	8.8	8.8	9.8	10.3	10.8	10.8
Rwanda	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Sudan	0.67	0.68	0.68	0.72	0.76	0.78	0.74	0.74	0.74	0.74
Swaziland	2.3	2.3	2.59	2.59	2.82	2.82	2.88	2.88	2.88	2.88
Tanzania	0.05	0.12	0.13	0.15	0.16	0.16	0.17	0.19	0.19	0.19
Uganda	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Zambia	0.02	0.03	0.03	0.04	0.06	0.09	0.19	0.21	0.21	0.21
Zimbabwe	0.17	0.2	0.2	0.26	0.31	0.31	0.45	0.45	0.45	0.45

Source: African Development Bank 2007

Table B: Irrigated land and share of arable land (with permanent crops) under irrigation

	Irrigated Land (1,000 ha)					Share in Arable Land and Permanent Crops (%)				
Countries	1979–1981	1989–1991	1999–2001	2002	2003	1979–1981	1989–1991	1999–2001	2002	2003
Burundi	14	15	21	21	21	1.12	1.16	1.58	1.55	1.55
Comoros	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Congo, Democratic Republic of	6	10	11	11	11	0.08	0.13	0.14	0.14	0.14
Egypt	2,453	2,621	3,310	3,422	3,422	100.00	100.00	98.19	100.00	99.94
Eritrea	-	-	21	21	21	-	-	3.93	3.72	3.72
Ethiopia	-	-	290	290	290	-	-	2.65	2.73	2.46
Kenya	40	55	85	90	103	0.93	1.18	1.66	1.74	1.98
Libyan Arab Jamahiriya	223	435	470	470	470	10.74	20.19	21.86	21.86	21.86
Madagascar	646	1,000	1,086	1,086	1,086	21.20	30.09	30.88	30.59	30.59
Malawi	18	20	52	56	56	1.13	1.04	2.29	2.30	2.16
Mauritius	16	17	20	21	22	14.95	16.04	19.18	19.81	20.75
Rwanda	4	4	9	9	9	0.39	0.34	0.74	0.65	0.61
Seychelles	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Sudan	1,700	1,817	1,865	1,863	1,863	13.64	13.73	11.19	11.19	10.69
Swaziland	40	45	50	50	50	23.03	22.84	25.96	26.04	26.04
Uganda	6	9	9	9	9	0.11	0.13	0.13	0.13	0.12
Zambia	19	30	133	156	156	0.37	0.57	2.52	2.95	2.95

Zimbabwe	80	106	174	174	174	3.07	3.52	5.19	5.19	5.19

Source: FAO Statistical Year book 2005/2006

Appendix 2: Occurrence and Impact of Natural Disasters in the COMESA region

Country	Disaster	Year of occurrence	Number of events	Effects	National Policy and Legislation and Key Disaster Risk Reduction Projects.
Burundi	Floods	1978 - 2007	13	• Damages costing over US$100 million. • Affected 64,905 people in total.	• Developing the National Civil Defence Coordination and Department of Disaster Prevention and Management. • US$7.4 billion mobilized to manage the crisis. • Education on unexploded landmines and canisters project to amount US$ 5,161,400.
	Wind Storm	1978 - 2007	4	• Affected 47,815 people in total.	
	Drought and famine	1978 - 2007	3	• Affected 2,800,000 people in total. • Killed 126 people.	
	Earthquakes (Over 500 earthquakes felt)	1978 – 2007	1	• Total affected: 120 people. • Killed 3 people.	
	Epidemic	1978 – 2007	13	• Total affected: 1,377,466 people. • Killed 776 people.	
Comoros	Volcanic eruptions	1903 – 2007 (Two eruptions in 2005)	6	• Total affected: 309,200 people. • Killed 19 people.	• Sanitation projects. • Water distribution projects. • Community sensitization on tsunami. • Disaster reduction efforts included a Poverty Reduction Strategy paper and also in 2006-09 an action plan.
	Epidemic	1903 - 2007	5	• Total affected: 3,895 people. • Killed 36 people.	
	Wind Storm and Tsunami	1903 - 2007	6	• Total affected: 115,352 people. • Killed 559 people.	
	Cyclones and Floods	Per annum	1 to 2 per annum	• 1,000 disaster victims on average.	
Congo DRC	Drought	1966 - 2007	2	• Total affected: 800,000 people.	• The following are key Disaster Risk Reduction Projects. • KIVULU/Mont Ngafula RN1 – US$850,000. • MATABA I Binza Delveaux – US$6.9 million. • Dreve of SELEMBAO – US$11 million (World Bank)
	Earthquake	1966 - 2007	2	• Total affected: 3,911 people. • Killed 33 people. • Damages - US$200,000.	
	Epidemic	1966 - 2007	54	• Total affected: 642,130 people. • Killed 7,853 people.	
	Floods	1966 - 2007	12	• Total affected: 171,073 people. • Killed 156 people.	
	Slides	1966 - 2007	3	• Total affected: 916 people. • Killed 166 people.	
	Volcanic eruptions	1966 - 2007	3	• Total affected: 170,400 people. • Killed 347 people. • Damages – S$9,000,000.	
Djibouti	Drought	1977 - 2005	6	• Total affected: 605,000 people.	• Development of National Strategy for Disaster Risk reduction (financing of the UNDP: US$360,000). • Support for the implementation of the National Strategy (financing by the World Bank: US$200,000).
	Epidemic	1977 - 2005	4	• Total affected: 3,485 people. • Killed 86 people.	

Country	Disaster	Year of occurrence	Number of events	Effects	National Policy and Legislation and Key Disaster Risk Reduction Projects.
	Flood	1977 - 2005	7	• Total affected: 689,300 people. • Killed 231 people. • Damages – US$5,719,000	• Reinforcement of national, regional competences for the preparation, prevention, and response to disasters. • The installation of an intersector institutional structure for Disaster Risk Reduction. • The integration of Disaster Risk Reduction and Vulnerability in macro-economic planning.
	Wind Storm	1977 - 2005	1	• Total affected: 775 people.	
Egypt	Earthquake	1926 - 2006	5	• Total affected: 92,996 people. • Killed 10,291 people. • Damages – US$151,200,000	
	Epidemic	1926 - 2006	3	• Total affected: 143 people. • Killed 10,291 people.	
	Flood	1926 - 2006	6	• Total affected: 230,738 people. • Killed 691 people. • Damages – US$154,000,000	
	Slides	1926 - 2006	1	• Total affected: 300 people. • Killed 34 people.	
Eritrea	Drought	1993 - 2004	2	• Total affected: 3,900,000 people.	• In 1994 the Early Warning and Remote Sensing System was launched and later on this programme shifted to the National Food Information System. Carried projects on Disaster Risk Reduction. • The Emergency • Reconstruction Programme incorporated into DRR. • Development of Strategy for disaster prevention • Preparedness and mitigation
	Flood	1993 - 2004	2	• Total affected: 7,013 people.	
	Wind Storm	1993 - 2004	1	• Total affected: 15,675 people. • Killed 3 people.	
Ethiopia	Drought	1906 - 2007	10	• Total affected: 43,636,200 people. • Killed 402,367 people. • Damages – US$92,600,000.	Projects like: • The multifaceted national Food security program, comprised of a Safety Net Program which aims to graduate food insecure households and a voluntary resettlement program that targets to move chronically food insecure households from highly degraded and drought-ridden areas to more fertile and habitable parts of the country. • National Policy on Disaster Prevention and Management (NPDPM) endorsed in 1993. It outlines: Relief – development linkage, intersectoral disaster management integration or mainstreaming and proactive disaster prevention approach, among others.
	Earthquake	1906 - 2007	7	• Total affected: 585 people. • Killed 24 people. • Damages – US$7,070,000.	
	Epidemic	1906 - 2007	19	• Total affected: 174,406 people. • Killed 11,445 people.	
	Flood	1906 - 2007	43	• Total affected: 2,072,170 people. • Killed 1,896 people. • Damages – US$13,820,000.	
	Slides	1906 - 2007	3	• Total affected: 194 people. • Killed 39 people.	

Country	Disaster	Year of occurrence	Number of events	Effects	National Policy and Legislation and Key Disaster Risk Reduction Projects.
	Volcano	1906 - 2007		• Total affected: 9,200 people. • Killed 66 people.	
Kenya	Drought	1964 - 2007	11	• Total affected: 35,352,000 people. • Killed 221 people. • Damages – US$1,500,000.	• Formulation of a draft Disaster Risk Reduction Strategy for Kenya with budget of US$21,945,205 to implement the strategy.
	Epidemic	1964 - 2007	23	• Total affected: 6,842,877 people. • Killed 3,056 people.	
	Floods	1964 - 2007	25	• Total affected: 2,061,008 people. • Killed 776 people. • Damages – US$22,388,000.	
	Slides	1964 - 2007	2	• Total affected: 6 people. • Killed 36 people.	
	Wave/Surge	1964 - 2007	1	• Killed 1 people. • Damages – US$100,000,000.	
	Wind Storm	1964 - 2007	1	• Killed 50 people.	
Libya	Earthquake	1944 - 1995	1	• Killed 320 people. • Damages – US$5,000,000.	
	Flood	1944 - 1995	1	• Damages – US$42,200,000.	
Madagascar	Drought	1968 - 2007	5	• Total affected: 2,795,290 people. • Killed 200 people.	Projects include: • US$7,000 by UNICEF for the formation of risk management plans. • US$6,000 by UNESCO for textbooks on natural disasters. • US$550,000 by UNDP for reinforcing the implementation of the national strategy. • US$17,000 by UNOPS for the capacity development in tsunami response. Following Cyclones; The World Bank provided funding and rehabilitation of critical infrastructure affected, reconstruction of roads and public buildings, and strengthening of coordination activities.
	Epidemic	1968 - 2007	3	• Total affected: 40,203 people. • Killed 1,652 people.	
	Flood	1968 - 2007	6	• Total affected: 164,210 people. • Killed 52 people. • Damages – US$150,000,000.	
	Insect Infestation	1968 - 2007	1	• Damages – US$3,500.	
	Wind Storm	1968 - 2007	37	• Total affected: 8,244,134 people. • Killed 2,092 people. • Damages – US$1,622,101,000.	
	Cyclones (Cyclone Elita and Gafilo in 2004 and Cyclone Boloetse in 2006)	2004 – 2006	3	• Cyclone Elita and Gafilo caused an estimated 2.3% loss in GDP. • Cyclone Boloetse caused a 0.7% decline in GDP.	
Malawi	Drought	1967 - 2007	5	• Total affected: 19,158,702 people. • Killed 500 people.	• 2001 Flood Disaster Project funded by UNDP, with objective of enabling Department of Poverty and Disaster Management Affairs (DoPDMA) to effectively coordinate response to floods. DoPDMA assisted 7 districts to develop Flood
	Earthquake	1967 - 2007	1	• Total affected: 50,100 people. • Killed 9 people. • Damages – US$28,000,000.	

Country	Disaster	Year of occurrence	Number of events	Effects	National Policy and Legislation and Key Disaster Risk Reduction Projects.
	Epidemic	1967 - 2007	11	• Total affected: 46,280 people. • Killed 1,495 people.	Contingency Plans. The Project provides assistance for national policy and strategy development, institutional development of its national disaster organization, short term multi-sectoral disaster preparedness planning, analysis of lower Shire River flooding, awareness raising at various levels, training of district-level civil protection committees through the Red Cross, and a study of disaster recovery financing and economic impact of disasters.
	Flood	1967 - 2007	22	• Total affected: 1,703,090 people. • Killed 581 people. • Damages – US$32,489,000.	
	Wind Storm	1967 - 2007	1	• Total affected: 8 people. • Killed 11 people.	
Mauritius	Drought	1960 - 2007	1	• Damages – US$175,000.	• The Cyclone and Torrential Rain Emergency Schemes. • Retention walls have been erected to mitigate impact of storm surge and evacuation strategy exists for residents of vulnerable areas. • Flood areas have been identified and measures are put in place for residents to be evacuated to refugee centers in case of danger.
	Epidemic	1960 - 2007	2	• Total affected: 2,661 people.	
	Wind Storm	1960 - 2007	18	• Total affected: 1,029,263 People. • Killed 85 people. • Damages – US$636,373,000.	
Rwanda	Drought	1974 - 2007	6	• Total affected: 4,156,545 People. • Killed 237 people.	• A national policy on disaster risk and prevention in Rwanda was formulated in 2002 and approved by the Cabinet in July 2003. A national body on Disaster Management was put in place in July 2004. • The Strategic Plan of Action of the National Policy on Disaster Management contains three phases in disaster management: Prevention/mitigation before the occurrence, response in case of disasters, and rehabilitation.
	Earthquake	1974 - 2007	1	• Total affected: 1,535 people. • Killed 45 people.	
	Epidemic	1974 - 2007	12	• Total affected: 7,399 people. • Killed 322 people.	
	Flood	1974 - 2007	7	• Total affected: 1,952,194 People. • Killed 139 people.	
	Slides	1974 - 2007	1	• Total affected: 2,000 people. • Killed 24 people.	
Seychelles	Epidemic	1997 - 2007	1	• Total affected: 5,461 People.	• The Department for Risk and Disaster Management is represented at the Town and Country Planning Authority to ensure that DRR is included in all development proposals. • The National Policy for Disaster Management and Disaster Risk Reduction has been drafted and is in its final stage of implementation. • Disaster risk reduction is included in the Environment Management Plan 2 and is implemented throughout the Environment Protection Act. • Road maps with clear objectives are inclusive in the contingency plans for all the 24 districts.
	Flood	1997 - 2007	1	• Total affected: 1,237 people. • Killed 5 people. • Damages – US$1,700,000.	
	Wave/Surge	1997 - 2007	1	• Total affected: 4,830 people. • Killed 3 people. • Damages – US$30,000,000.	
	Wind Storm	1997 - 2007	1	• Total affected: 6,800 People.	

Country	Disaster	Year of occurrence	Number of events	Effects	National Policy and Legislation and Key Disaster Risk Reduction Projects.
Sudan	Drought	1940 - 2007	7	• Total affected: 23,210,000 people. • Killed 150,000 people.	
	Earthquake	1940 - 2007	2	• Total affected: 23,210,000 people. • Killed 3 people.	
	Epidemic	1940 - 2007	31	• Total affected: 204,885 people. • Killed 10,776 people.	
	Floods	1940 - 2007	23	• Total affected: 7,443,077 people. • Killed 477 people. • Damages – US$220,180,000.	
	Insect Infestation	1940 - 2007	5		
Swaziland	Drought	1983 - 2007	5	• Total affected: 1,620,000 people. • Killed 500 people. • Damages – US$1,739.	
	Epidemic	1983 - 2007	3	• Total affected: 3,677 people. • Killed 142 people.	
	Flood	1983 - 2007	1	• Total affected: 272,000 people. • Damages – US$50,000.	
	Wild Fires	1983 - 2007	1	• Total affected: 1,500 people. • Killed 2 people.	
	Wild Storm	1983 - 2007	4	• Total affected: 641,335 people. • Killed 54 people. • Damages – US$54,152,000.	
Tanzania	Drought	1901 - 2007	8	• Total affected: 8,037,483 people.	Have Disaster Management Department (DMD) has a Medium Term Strategic Plan 2004-2007. its objectives are: • To develop appropriate policies and strategies and to mobilize, educate and support national institutions in disaster management. • To be more effective in responding to in responding to disasters.
	Earthquake	1901 - 2007	9	• Total affected: 8,991 people. • Killed 9 people.	
	Epidemic	1901 - 2007	28	• Total affected: 95,789 people. • Killed 6,661 people.	
	Flood	1901 - 2007	27	• Total affected: 877,022 people. • Killed 542 people.	
	Insect Infestation	1901 - 2007	1		
	Wave/Surge	1901 - 2007	1	• Killed 10 people.	
	Wind Storm	1901 - 2007	1	• Total affected: 2,500 people. • Killed 4 people.	
Uganda	Drought	1901 - 2007	7	• Total affected: 3,206,000 people. • Killed 194 people. • Damages – US$1,800.	
	Earthquake	1901 - 2007	4	• Total affected: 57,510 people. • Killed 111 people. • Damages – US$71,500,000.	
	Epidemic	1901 - 2007	26	• Total affected: 108,661 people.	

Country	Disaster	Year of occurrence	Number of events	Effects	National Policy and Legislation and Key Disaster Risk Reduction Projects.
				• Killed 203,160 people.	
	Flood	1901 - 2007	15	• Total affected: 944,231 people. • Killed 223 people.	
	Slides	1901 - 2007	1		
	Wind Storm	1901 - 2007	3	• Total affected: 10,105 people.	
Zambia	Drought	1978- 2007	5	• Total affected: 4,173,204 people.	Projects: • Emergency Drought Recovery Project (EDRP) – US$50. By World Bank in 2002. Purpose was to improve living conditions of vulnerable people. Specifically the project objectives were to assist the Government of Zambia in maintaining key commitments to its economic and investment priorities laid out in the PRSP and also to help restore productive capacity of the affected people.
	Epidemic	1978- 2007	14	• Total affected: 47,984 people. • Killed 727 people.	
	Flood	1978- 2007	10	• Total affected: 3,037,198 people. • Killed 22 people. • Damages – US$20,900,000.	
	Insect Infestation		2		
Zimbabwe	Drought	1975 - 2007	4	• Total affected: 11,755,000 people. • Damages – US$2,500,000,000.	Support for Strengthening National Capacity for Disaster Management in Zimbabwe: this is a three year project which started in January 2005 and will terminate in February 2008. The project focuses on : • Institutional capacity needs assessment, (done) • Disaster risk assessment, (Partially done) • Updating the national strategy and plan. Also supporting the preparation of the pilot provincial and districts disaster management strategies and plan in the selected provinces and districts. • Support to the legislative and policy development, (ongoing) • Institutional strengthening (ongoing)
	Epidemic	1975 - 2007	14	• Total affected: 511,350 people. • Killed 1,908 people.	
	Flood	1975 - 2007	4	• Total affected: 314,000 people. • Killed 276,500 people. • Damages – US$276,500,000.	
	Wind Storm	1975 - 2007	3	• Damages – US$1,200,000.	

Sources:

EM-DAT 2007. The OFDA/CRED International Disaster Database. Centre for Research on Epidemiology of Disasters (CRED). http://www.em-dat.net/disasters/country profiles.php – Universite Catholique de Louvain, Brussels.

World Bank and UNISDR 2007. Report on the Status of Disaster Risk Reduction in the Sub-Sahara Africa (SSA) Region. United Nations International Strategy for Disaster Reduction (UNISDR).

Appendix 3: Trends in the Agricultural GDP growth rates in the COMESA region

Period	Less than 5%	3-5%	1-3%	Less than 1%
1975-84	Sudan, Rwanda	Kenya	Malawi, Burundi, Congo DRC	Zambia, Madagascar, Zimbabwe, Swaziland, Seychelles
1985-94		Uganda, Tanzania	Sudan, Ethiopia, Congo DRC, Madagascar, Kenya, Burundi, Comoros, Zimbabwe, Malawi	Zambia, Mauritius, Swaziland, Seychelles, Rwanda, Djibouti
1995-MR	Rwanda, Sudan, Malawi	Uganda, Tanzania, Swaziland	Seychelles, Zambia, Djibouti, Ethiopia, Madagascar, Zimbabwe, Burundi, Kenya, Mauritius	Congo DRC, Eritrea

Source: World Bank 2004. African Development Indicators 2004 in FAO 2006

List of Acronyms

AfDB	African Development Bank
AU	African Union
ASAL	Arid and Semi-arid Land
CAADP	Comprehensive Africa Agriculture Development Programme
CAHWs	Community Based Animal Health Workers
CBS	Central Bureau of Statistics
COMESA	Common Market for Eastern and Central Africa
EAC	East African Community
ECA	Eastern and Central Africa
FAO	Food and Agriculture Organization
FAOSTAT	Food and Agriculture Organization Statistics
FEWS NET	Famine Early Warning Systems Network
FTA	Free Trade Area
GDP	Gross Domestic Product
GHI	Global Hunger Index
GoK	Government of Kenya
Ha	Hectare
HDI	Human Development Index
HPI	Human Poverty Index
ICT	Information and Communication Technology
IDPs	Internally Displaced Persons
IEHA	Initiative to End Hunger in Africa
IFAD	International Fund for Agricultural Development
ILRI	International Livestock Research Institute
IWRM/WE	Integrated Water Resource Management and Water Efficiency
KARI	Kenya Agricultural Research Institute
Kg/ha	Kilogram per hectare
KIHBS	Kenya Integrated National Household Budget Survey
KNBS	Kenya National Bureau of Statistics
KSSFG	Kenya Food Security Steering Group
MAAIF	Ministry of Agriculture, Animal Industry, and Fisheries
MDG	Millennium Development Goal
MFP	Ministry of Finance and Planning
MoA	Ministry of Agriculture
MoA & LD	Ministry of Agriculture and Livestock Development
NAADS	National Agricultural Advisory Services
NARO	National Agriculture Research Organization
NGO	Non-Governmental Organization
PMA	Plan for Modernization of Agriculture
PRSP	Poverty Reduction Strategy Paper
PPP	Purchasing Power Parity
RDAs	Regional Development Authorities
RECs	Regional Economic Communities
ReSAKSS-ECA	Regional Strategic Analysis and Knowledge Support System for Eastern and Central Africa
SD	Standard Deviation
SRA	Strategy for Revitalization of Agriculture
SSA	Sub-Saharan Africa
SCD	Simplified Customs Document
SCO	Simplified Certificate of Origin

SRT	Simplified Trade Regime
TOT	Terms of Trade
UBOS	Uganda Bureau of Statistics
UDHS	Uganda Demographic and Health Survey
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNCTAD	United Nations Conference on Trade and Development
UDHS	Uganda Department of Health Survey
UNHS	Uganda National Health Survey
UNDP	United Nations Development Programme
UNICEF	United Nations Children Fund
USD	United States Dollar
USAID	United States Agency for International Development
WFP	World Food Programme
WMS	Welfare Monitoring Survey

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