# A MACROECONOMIC PESPECTIVE ON FOOD SECURITY

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### **Executive Summary**

Food security is not only an agriculture problem, but various factors may directly or indirectly impact on the country's food security position. As poverty is generally the main threat to food security, factors that directly or indirectly affect the country's poverty levels, such as economic growth, unemployment, high food prices and political instability also have an impact on food security.

This report looks at how a selected few macro-economic variables may affect food security. Some of the findings are:

- Though food insecurity is largely a rural problem, urban food security is no longer assured in many African countries due to dramatic urbanization in recent years
- Poverty is usually the main cause of food insecurity, thus it is vital that countries address poverty issues by improving the livelihoods of its citizens in order to ensure food security.
- Most African countries are highly dependent on imports of grain a staple for most countries – which may threaten a country's food security when international prices soar.

Agriculture remains vital in ensuring food security and it is critical that more investment is channeled towards agriculture to ensure improved production if countries are to remain food secure.

#### 1. Introduction

According to the Food and Agriculture Organization (FAO), food security exists "when all people at all times have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life." The United States Department of Agriculture (USDA's) Economic Research Service (ERS), defines food-insecure people as those consuming less than the nutritional target of 2,100 calories per day per person.

Dramatic urban growth, the feminization of poverty and Southern Africa's vulnerability to natural hazards mean that urban food security is no longer assured in many African countries. While urban food security is a growing challenge in the context of rapid urbanization and rising poverty, the HIV/AIDS epidemic has heightened food insecurity, created newly-vulnerable populations and reduced the capacity of poor households to secure sustainable livelihoods.

The concentration of poverty and HIV/AIDS in the same vulnerable urban households underpins a "vicious cycle" of food insecurity. Food insecurity has become a chronic development problem in Southern Africa's rural and urban areas, the region will have the highest rate of urbanization in the world by 2025 and more than half of Southern Africa's population

will be urban. The region is also characterized by extreme poverty and is especially vulnerable to disease and environmental stressors. Chronic poverty is no longer an exclusively rural problem, but is increasingly concentrated in urban centres. Poverty, HIV/AIDS and food insecurity are all concentrated in informal and peri-urban sections of both primary and secondary cities of Africa. This article will look at food security in Africa and South Africa, macro economic perspective to food security and the role of agriculture towards food security.

# 2. Food security situation in Sub Saharan Africa (SSA)

The global economic crisis is threatening all parts of the world and there is no consensus as to how long it will last and how deep it will get before a recovery occurs. Reflecting on the uncertainty of the current economic climate, in a July 2009 update the International Monetary Fund (IMF) believe that the world economy is stabilizing, helped by unprecedented macroeconomic and financial policy support. However, the recession is not over and the recovery is likely to be sluggish. Following a disappointing first quarter, during which the global economy contracted almost as fast as during the fourth quarter of 2008, data point to a return to modest growth at the global level. However, the advanced economies as a group are still projected not to show a sustained pickup in activity until the second half of 2010, consistent with the April 2009 World Economic Outlook (WEO) forecast. Accordingly, global activity is expected to contract by 1,4% in 2009 and to expand by 2,5% in 2010, which is 0,6% higher than envisaged in April 2009. On a fourth-quarter-over-fourth quarter basis, real GDP growth is projected at 2,9% in 2010, compared with 2,6% in the April (IMF, 2009).

According to USDA's Economic Research Service, the number of food-insecure people in 70 developing countries including South Africa is projected to increase further between 2008 and 2009. This ongoing rise in the number of food-insecure people is due to the continuation of high food prices and the global economic downturn. Food security in developing countries worsened between 2007 and 2008. The number of food insecure people in the 70 developing countries studied by ERS is estimated to have increased by nearly 11% or about 80 million people. Despite a decline in food prices in late 2008, purchasing power and food security were expected to deteriorate in 2009 because of the growing financial deficits and higher inflation that occurred in recent years. ERS food-security baseline estimations of the 70 countries studied showed nearly 2% increase in the number of foodinsecure people in 2009, reaching 833 million. Growth in the number of foodinsecure people is highest in Sub-Saharan Africa (SSA) because domestic production is expected to revert to normal levels in 2009 from the above-average or bumper crops that were experienced in many countries in 2008. The distribution gap overall is estimated to decline by 6%, mainly because of the baseline-estimated improvement in food security in Asia, which far outpaced the growth in the gap in SSA. The distribution gap is the amount of food needed to raise consumption in each income group to meet nutritional requirements of 2,100 calories per person per day.

To evaluate the likely impact of the financial crisis on food security of lower income countries, ERS developed a scenario based on the latest IMF projections in which export earnings growth as well as capital inflows contract from the 2009 base level. The number of food-insecure people in the 70 countries is estimated to increase by 12% (or 97 million) 2009 from the baseline. Sub-Saharan Africa's food security deteriorated between 2007 and 2008, despite higher than normal grain production across much of the region. The region remains the most vulnerable of the five regions to food insecurity, as roughly half of the region's population is estimated to be food insecure. In contrast to Asia, SSA accounts for only a quarter of the

population of the 70 countries, but its share of the number of food-insecure people is 47% (USDA, 2009).

SSA has become increasingly dependent on imports of grain - a staple of the region's diet. In the late 1980s, imports accounted for around 10% of the region's grain supplies, however in recent years; this share has consistently exceeded 20%. Therefore, when international prices rise, the ability to import is likely to fall given the limited financial capacity of the region.

Grain prices started to rise in 2002 and continued to rise through early 2008 before falling off in late 2008. The expected impact of this price increase was offset by above-average or record grain production in many SSA countries in 2008. As a result, the number of food-insecure people in the region remained flat between 2007 and 2008. Somalia and Zimbabwe were estimated to be the most food-insecure countries in the region in 2008 as consumption in all income groups fell well below the nutritional target. These two countries have been characterized by unstable political situations that have disrupted agricultural activities.

## 3. Food security situation in South Africa

Access to sufficient food is the constitutional right of all South Africans. At the na-

tional level. South Africa is a food secure nation. This means the country produces its main staple foods, exports its surplus food, and imports what it needs to meet its food requirements. Yet, the picture at household level is very different. According to Statistics South Africa (Stats SA), around 35% of the total population, 14,3 million South Africans, are currently vulnerable to food insecurity. Among these are women, children and the elderly who are particularly more vulnerable. Approximately 1,5 million children under the age of 6 years are malnourished, and therefore stunted because of lack of proper nutrition (Stats SA, 2000).

Poverty and food insecurity are locked into the same destructive cycle. The widespread inequality and grinding poverty affecting half of our population results in inadequate food supply, poor nutrition, unstable food supply and weak emergency food management systems. Inadequate social safety nets, high unemployment and high prevalence of HIV/AIDS further exacerbate food insecurity. The chronic lack of food security experienced by more than a third of the country's population highlights severe, threatening inequalities in the South African society. The current food insecurity situation has a gender with women-headed households bias. vulnerable more than male-headed households; and girls less than six years of age more prone to stunting due to poor nutrition than boys. There is a clear racial bias, with Black South African households making up the vast majority of food insecure homes. There is also a glaring rural bias, with rural households being far more prone to food insecurity than urban homes. The issue of food insecurity is complex, systemic and multi-sectoral, involving access to viable land, sufficient water, environmentally-friendly technologies, credit and sustainable markets. It also includes soil fertility, ecological health, income-generation opportunities and nutritional education (Food Bank SA, 2009)

For food-secure South Africans, the problem of hunger is often underestimated, but according to Food Bank SA (FBSA), more than 14 million South Africans don't know where their next meal will come from. In response to the prevalent food security challenges, three existing food services NGOs have come together to form FBSA. The independent organization seeks to reduce hunger by obtaining and storing quality food for distribution to those who are in need of basic food support. Based on a food security model promoted by the Global Food Banking Network, FBSA will act as the national governing body for a network of community-based Food Banks, the first of which was established in March 2009 in Cape Town. The community Food Banks as well as the national body actively obtain food on behalf of agencies (social services organizations and NGOs) operating in the area of food security. Food is mainly acquired through donations from major retailers and manufacturers as well as government agencies, private organizations and individuals. The food is then stored safely and sorted into nutritional packages before being made available or delivered to relevant agencies. Over the next three years, FBSA plans to open 20 Food Banks around the country and increase its food supply by five-fold.

# 4. Selected macroeconomic variables and their impact on food security

#### 4.1 Inflation

The current rise in prices also raises fundamental questions about the adequacy of the current global food management system



Figure 1: CPI Inflation Source: Statistics South Africa. 2009

6

to ensure world food security, and about the long-term sustainability of production and distribution systems on which the world's food supply is currently based. The world is experiencing a dramatic increase in international prices of basic food commodities. The increase has been rapid, sustained, and across all major crops. In the first three months of 2008, international prices reached their highest point, in real terms, in nearly thirty years, for all major food commodities.

Projections suggest that prices are likely to remain high for the next few years, and that this will affect most developing countries' markets. The indications are that the observed long-term decline in real prices could come to a halt, signaling a structural change in agricultural commodity markets, though it is too early to be certain. The FAO Food Price Index rose by 8% in 2006 and by a further 24% in 2007. The index average for the first three months of 2008 was 53% higher than for the same period in 2007. Over the same period, the price of vegetable oils rose by 97%, grains by 87%, dairy products by 58% and rice by 46%. Sugar and meat prices also rose, but to a lesser extent.

There was much greater price volatility than in the past, which lasted longer than in past high price periods. The World Bank estimates that some 100 million people have been pushed into poverty as a result

of high prices over the last two years. In South Africa, producer prices of white maize and wheat dropped year-on-year between 01 April 2008 to 01 April 2009 despite the planting season coinciding with the highest agricultural input costs in South African history - but the price of bread and maize-meal kept rising. Between 1 April 2008 and 1 April 2009, the price of white maize had fallen by 14%, and that of wheat by 35%, but between March 2008 and March 2009, bread prices had risen by 25% and maize-meal by 6,3% (Grain SA, 2009). According to Grain SA, causes of higher food prices did not come from the producer side, but food inflation is coming from services added beyond the farmer's gate as farmers have played their part in providing food security. The Department of Agriculture, Forestry and Fisheries'(DAFF) latest monthly bulletin on food security said the expected commercial maize crop for the 2008/09 production season was 11,202 million tons, about 11,8% less than the 2007/08 harvest of 12,7 million tons. Projections for the current 2009/10 marketing season indicate that South Africa will have a surplus of 2,131 million tons of maize at the end of April 2010.

#### 4.2 GDP growth

After experiencing an exceptional good run of average economic growth of 5% from 2004 to 2007, 2008 was significantly more challenging for the SA economy due to the global economic crisis, sharp declines in consumer demand in reaction to high inflation and interest rates as well as production constraints due to weakening global demand.



#### Figure 2: SA and Agriculture GDP growth Source: DAFF

The vulnerability of the South African economy to the global economic woes also became more evident as data released revealed a notable impact on domestic economic activity. Trade data, in particular, provided a reality check. Furthermore, private sector fixed investment is set to slow significantly. The spill over to employment should not be underestimated, and the outlook for real consumer expenditure has been cut to growth of only 0,4% in 2009 (BER, 2009)

Growth contributes to food security by increasing the resources available for investment to support agricultural growth and by reducing poverty thus increasing households' access to food. It is however noteworthy that increases in household incomes lead to increases in demand for food due to increased consumption of staple food to meet dietary requirements as well as increase consumption of processed and high value food. If supply does not respond sufficiently to meet the increased demand, food prices will rise and undermine the food security of net food buying households.

However, growth per se will not guarantee food security for all the people and the poor are the segment of the population most likely to be bypassed by the benefits of growth. This goes to highlight that for growth to contribute to food security, it must be pro-poor. The above observations underscore the need to ensure that the pursuit of growth is accompanied by measures to distribute its benefit.

Also the contribution of the agricultural sector to GDP is important to increase income, alleviate poverty and uplift the living standard of the people. However, the performance of this sector has been inadequate to meet the increasing food demand and livelihood needs of growing population in the country. In the context of the recent global and national food crisis, recent unprecedented rise of the price of foods, the role of agriculture remains in mitigating food crisis. The decline in production and consumption of foodstuff has raised concerns in many countries and as

a result that has led to a food security problem. Given SA's political history, certain socio-economic groups remain with inadequate access to food. Transition initially resulted in a large share of the population moving into poverty, because of both unemployment and real income and eroding inflation, such that more people had insufficient purchasing power to afford a minimally healthy diet. The most food insecure groups are those with the following traits: low income, large households, and no access to a garden plot on which they can grow food.

Economic growth will automatically lead to hunger reduction. Cross-country analyses conducted across the developing world suggest that economic growth alone, in the absence of specific measures to combat hunger, may leave large numbers of hungry people behind for a long time, particularly in rural areas. These analyses have also shown that economic growth has a far greater impact on hunger when it occurs in rural areas and in countries that have already created fertile conditions through rural and human resource development. As might be expected, the group of countries where hunger increased during the 1990s also registered the worst economic performance. Far from growing, their per capita GDP shrank at an average rate of 1,4%.

#### 4.3 Employment

The global financial crisis triggered a serious slowdown in world economic growth including recession in the largest industrialized countries. Companies stopped hiring workers and many are laying-off workers in considerable numbers. Global economic growth in 2008 was significantly below the rates seen in recent years, which resulted in a significant weakening in a number of labor markets. After four consecutive years of decreases, the global unemployment rate increased from 5,7% in 2007 to 6.0% in 2008 - rising for men to 5,8% and for women to 6,3%. The ranks of unemployed increased by 10,7 million people between 2007 and 2008, which is the largest year-on-year increase since 1998. (International Labour Organization, 2009)

Rising unemployment and sharp increases in extreme poverty are pushing larger numbers over the edge of hunger, starvation, disease, even death. A new generation of children is having its potential snuffed out as access to basic education, healthcare and nutrition are replaced by a life of labor (often hazardous), trafficking and abuse. Displacement due to climate change and civil conflict over shrinking resources threaten all regions (International Labour Organisation, 2009). The global economic crisis is expected to lead to a dramatic increase in the number of people joining the ranks of the unemployed, working poor and those in vulnerable employment. Based on new developments in the labor market and depending on the timeliness and effectiveness of recovery efforts, global unemployment in 2009 could increase over 2007 by a range of 18 million to 30 million workers, and more than 50 million if the situation continues to deteriorate. About 200 million workers, mostly in developing economies, could be pushed into extreme poverty (International Labour Organisation, 2009).

According to Stats SA, 267 000 job were lost in SA between the second quarter of 2008 and the second quarter of 2009. This implies a loss of disposable income for these workers and with generally low savings in SA, most of these workers are then pushed into poverty. In some cases, people replace nutritious food with cheap nonnutritious food items which may lead to malnutrition.

## 5. The Role of agriculture towards sustainable food security.

The 13th summit of the African Union (AU) took place in July 2009 in Sirte, Libya, with the theme "Investing in Agriculture for Economic Growth and Food Security". During the summit member states were expected to explore and work out strategies in the light of local conditions to boost investment in agriculture in a bid to expand crops plantation, raise production and address the food shortage facing the continent. AU's choice of investment in agriculture as the theme of its 13th summit is based on the common consensus by member states, after the experience of last year's food crisis and financial turmoil, that agriculture plays a key role in economic growth and food security.

Agriculture is still regarded as a pillar of economies in African countries which also holds a beacon of hope for African countries to seek economic growth and reduce poverty. A report titled "Developing African Agriculture through Regional Value Chains" which was jointly published in 2009 by the UN Economic Commission for Africa (ECA) and the AU said agriculture is the mainstay of economies in the continent, providing 25% to 35% of Africa's GDP, 60% of Africa's employment and is the main source of income in rural areas. Africa has a vast land with great potential to grow more crops, especially in the central, western and southern Africa where the land is rich, rainfall is plentiful, sunshine is day long and cost of land and labor is low.

Despite the unique, favorable conditions for developing agriculture, the African countries have so far failed to produce enough food to feed themselves. On the contrary, Africa has become the world's net food importing continent, with food importing bill topping 15 billion U.S. dollars in 2008. While excessively seeking industrialization and urbanization in the last decade, the African countries have failed to make steady investment in agriculture resulting in shrunken crops plantation and low production. African countries have once pledged to spend an average of 10% of their total national budget on agriculture but only few countries have fulfilled their promises.

Dr Akinwumi A. Adesina, the vice president of the Alliance for a Green Revolution in Africa, said in a recent interview that most African countries only spend an average of just 4 to 5% of their total national budget on agriculture, compared with 8 to 14% in Asia. In addition, lack of investment; inadequate research on agriculture; lack of access to qualified seeds; limited access to markets; poor agricultural infrastructure and irrigation systems; low fertility soils; climate change; globalization of economy and reduced foreign aid have combined to contribute to the bleak situation.

Due to the failed policies on agriculture by governments, Africans became the first victims of the food crisis and financial turmoil experienced last year. The poor had to spend a greater share of their income

on food. They had to spend more to buy less, increasing the ranks of the extremely poor. To protest the failed policies on agriculture by their governments and the skyrocketing food prices, people in the Cameroon, Senegal, Cote d'Ivoire, Mozambique and South Africa took to the street, triggering instability in these countries. Analysts are saying that it is not impossible for the Africans to feed themselves. At the just concluded 19th World Economic Forum on Africa, held at the beginning of 2009, participants argued that if the African countries can make significant increase in investing into the agricultural sector and work out feasible development strategies, Africa has the potential to become a "food basket" of the world.

#### 6. Conclusion

Food security is closely connected with economic growth and social progress as well as with political stability and peace. The food security agenda should focus on agriculture and rural development by promoting sustainable production, productivity and rural economic growth. At the same time, coherent policies to foster economy-wide growth, which is inclusive and environmentally sustainable, are to be pursued in conjunction with social protection mechanisms such as safety nets and social policies for the most vulnerable. The attention to promote access to health care and education in rural areas will substantially contribute to productivity and economic growth and, as importantly, improve nutrition and food security. It is necessary to improve access to food through more equitable income generation and distribution, employment creation and income prospects in developing countries. The impact of domestic food inflation on food security in developing countries, where food represents over half of consumer spending and as much as 70-80% of expenditure by low-income families, is severe.

Malnutrition is worsened, when the poor are unable to afford higher quality foods, including meat, dairy products and vegetables. The impact of soaring food prices on households depends crucially on their position in agricultural output food markets as producers and consumers: taking an unweighted average across countries, only 23% of all households and 31% of rural households are net food sellers, indicating that a majority of households are net buyers of staple foods: this means that the majority of the poor stand to lose from rising prices.

The G8 countries agreed to act with the scale and urgency needed to achieve sustainable global food security. They will partner with vulnerable countries and regions to help them develop and implement their own food security strategies, and together substantially increase sustained commitments of financial and technical assistance to invest in those strategies. Their action will be characterized by a comprehensive approach to food security, effective coordination, and support for country-owned processes and plans as well as by the use of multilateral institutions whenever appropriate.

#### **References:**

BER,2009. Economic Prospects, Third Quarter, Vol. 24, No.3.

DAFF, Economic Review of the South African Agriculture, 2009

FAO 2009, Food security report, 2009. Available at: <u>http://www.fao.org</u>

FBSA report, 2009 Available at: <u>www.foodbank.org.za</u>.

Grain South Africa, 2009. www.grainsa.co.za

International Labour Organisation 2009, Global Employment Trends, 2009

IMF 2009, WEO July 2009, Available at: <a href="http://www.imf.org">http://www.imf.org</a>

Stats SA, Measuring Poverty in South Africa, 2000. UN, Economic Commission, Developing African Agriculture, 2009.

USDA, ERS Food Security Assessment 2008-2009

World Bank, World Development Report, 2008

World Economic Forum on Africa, 2009.