



Food and nutritional security in Africa: A comparative analysis

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Abstract

The main objective of this study was to investigate the food and nutritional security of Africa for better policy analysis at regional and national level.

The three main pillars of food security; availability, accessibility and utilization have been used as the basic analytical framework. Ten representative countries based on their population size, agricultural contribution to their GDP, their geographical location and on their food security ranking have been selected. A long year available electronic data on food availability, accessibility and utilization parameters have been collected and statistically manipulated. Also a detailed literature review of a qualitative research has been undertaken.

The availability analysis revealed that, of the case study countries caloric food supply is deteriorating in Zambia. Nigeria, Sudan and Madagascar have also shown a reduction in the level of caloric food supply over the past couple of years. While widespread economic growth observed in Africa, those countries with less dependence on mineral resources showed better performance in poverty reduction and income distribution which enhances better food access. The food utilisation analysis found that child malnutrition was decreasing in the case study countries. However, the level of micronutrient deficiency, especially in children under the age of five, was found to be high in almost all of the case study countries.

It has been concluded that agricultural growth has a positive effect on food availability, accessibility and utilization in Africa. Besides its importance as an engine for economic growth, promotion of small scale farming enhances nutritional security at household level as well as national.

Background

-Although aggregate figure hide regional diversity, according to World Bank (2013) SSA excluding SA recorded a 5.8% GDP growth rate over the past decade. It has been enjoyed by both resource rich and resource poor ones (Vink, 2012).

-However according to FAO, 2012 around 26.8% of SSA's population is undernourished which is also expected to rise to 33.8% by 2023 (Meade & Rosen, 2013).

-In this respect this study investigated the food and nutritional security of the region in line with the growth pattern and the role agriculture is playing.

Figure 1. The analytical framework



Method

The three main pillars of food security - availability, accessibility and utilization have been analyzed quantitatively and qualitatively both at regional and national level.

Ten representative countries of the African continent based on their population size, agricultural contribution to their GDP, their geographical location and on their food security ranking have been selected.

A long year data, at least for the past thirty years, available on electronic databases of international and national organizations had been collected and statistically manipulated.

Results

In terms of caloric food supply, Northern & Western Africa regions performed better while Southern Africa showed stagnant performance the Eastern and Central Africa regions are showing increasing pattern after long year deterioration. Out of 50 African countries 21 recorded <2 300Kcal/cap/day in 2009.

-Africa became net agricultural commodities importer since 1980s. Total agricultural commodities import increased at a rate of 7.7% between 1961 and 2010, while export rose at a rate of 4.7%. The highest growth rate of import observed in Middle and Northern Africa regions of 4.1% during this period.

-The GDP/capita increased in both resource rich and resource poor countries, while poverty reduction and equality was more robust on the later ones. It is found out that agriculture is the main driver of economic growth in these countries. Low level of infrastructure, conflict, corruption as well as socio cultural factors such as marginalization of individuals and groups affect food accessibility.

- Food utilization refers to the food quality and safety, in which the former deals with nutritional standard and dietary micronutrient availability and the later with non-food parameters.

-MDG4- a two-third reduction in the mortality rate of children under five b/n 1990 & 2015, most countries were on track except the DRC, Sudan & SA

Conclusions

Focusing only on food availability and food accessibility does not necessarily guarantee the ultimate goal of food and nutritional security. Food utilization necessarily goes beyond the concept of food availability and food accessibility, to the type of food that is available and accessible to the extent how it is being utilized. This concept, in turn, can be divided into both food and other non-food parameters, which are equally important.

In this respect pro-poor agricultural growth strategy which includes promotion of small-scale agricultural production accompanied with infrastructural growth, peace & stability, national and regional market integration with effective social protection and safety net programs are vital for food & nutritional security in Africa.

Table 1. Growth on poverty and inequality

	Base year	% pop'n (<1.25\$/day)	GINI	End year	% pop'n (< 1.25\$/day)	GINI	GDP/capita
Egypt	1991	4.46	32	2008	1.69	30.7	2.7
Ethiopia	1995	60.5	40	2011	30.7	33.6	4.5
Ghana	1992	51.1	38.1	2006	28.6	42.8	2
Madagascar	1993	72.5	46.1	2010	81.3	44.1	-0.2
Mozambique	1996	80.6	44.5	2008	59.6	45.7	5.1
Nigeria	1996	68.5	46.5	2010	68	48.8	2.5
SA	1995	21.4	56.6	2009	13.8	63.1	1.6
Zambia	1996	62.1	49.8	2006	68.5	54.6	1.5

Figure 2. Trend of caloric food supply in Kcal/cap/day

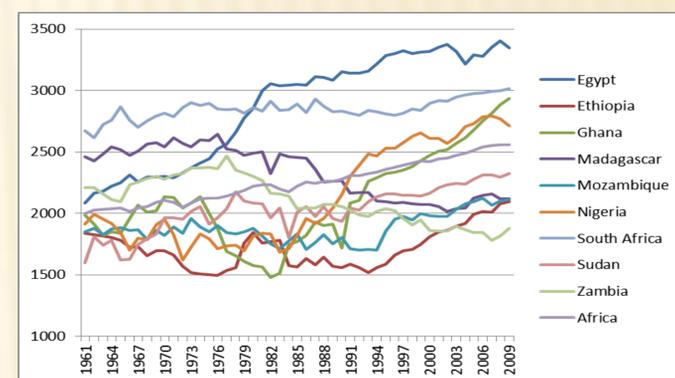


Table 2. % change in child malnutrition

Country (period)	% wasting	% stunting	% underweight	% under-five mortality rate (1990-2011)	GDP per capita
DRC (1995-2010)	25	15	21	8	-0.8
Egypt (1995-2008)	-39	17	33	76	3.3
Ethiopia (1992-2011)	-10	34	30	61	3.7
Ghana (1988-2008)	-30	26	37	36	2.3
Madagascar (1992-2009)	116	19	103	62	-0.3
Mozambique (1995-2008)	56	27	23	54	4.8
Nigeria (1990-2008)	-22	19	24	42	1.7
Sudan (1993-2006)	-37	2	0	30	3.4
South Africa (1994-2008)	570	24	970	25	1.8
Zambia (1992-2007)	11	1	30	57	0.2

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