

REVIEW ARTICLE

GLOBAL ECONOMIC CRISIS AND NUTRITION SECURITY IN AFRICA

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Introduction

For nearly a decade, sound economic policies and greater external support, in the forms of debt relief and increased investment and inflows contributed to robust economic growth in many African countries. During 2007 and 2008, though, food and fuel price shocks put inordinate strains on these nations' balance sheets, growth prospects and potential to reduce poverty. These strains have since been compounded by the global economic crisis, which now threatens to reverse the region's more recent movement toward meeting the Millennium Development Goals [1]. The global recession has effectively reduced export demand, commodity prices and foreign investment and inflows, generating negative effects on terms of trade and household incomes. These negative effects exacerbate living and working conditions in Africa that were already worsened by the food crisis. African farmers in particular have had little resources with which to respond to these crises. Poor infrastructure, poor quality seeds and soil, limited technology and investment in research and development and a lack of access to capital, among other obstacles, leave African farmers with a diminished capacity to respond to the current crisis [2]. African nations, made more vulnerable by the food and fuel crisis, now face a worsened outlook given the deeper vulnerability imposed upon them by the economic crisis' adverse and potentially prolonged effects. This potentially dire outlook begs the question, what kinds of policies and programs are needed to protect the vulnerable? Though the experience is scanty on how to implement large scale interventions, lessons learned from other parts of the world and from past crisis might provide the first steps forward toward devising a solution.

Need for policy and Program Interventions

Effective social protection policies and responses are necessary to help mitigate the adverse impacts global economic crises have on the world's most vulnerable populations. Short-term and uncoordinated crisis-response policies may neglect less visible and longer-term crisis implications, posing a distinct threat to poverty and malnutrition reduction. Therefore, it is imperative to study the pathways in which economic crises can adversely affect development goals and to derive lessons from past policy responses. Food insecurity receives much attention from researchers and donors alike. Nutrition insecurity, on the other hand, is much less visible but equally devastating to poor populations' health and economic development. Malnutrition is strongly associated with high human, social and economic costs. Such costs include continual intergenerational transmission of poverty and major innovation deficits within affected populations [3].

Childhood malnutrition in particular can have dire and long-lasting effects on vulnerable populations. A lack of protein exponentially increases children's risk of death, while vitamin A and iron deficiencies are similarly associated with higher infant and child death rates [4]. Sufficient nutrition both in the womb and before the age of two is critical for human capital formation since cognitive losses are essentially irreversible by the time a child reaches school. Early life and childhood malnutrition

also lead to increased stunting and anemia which cause low birth-weight in the next generation but also impact long-term cognitive development [5].

They lead to poorer academic performance but also lower productivity during adulthood. Losses in human capital from malnutrition are long-lasting. Cesar Victora, a leading researcher in child health and development at the Federal University of Pelotas, Brazil, estimates that the effect of under-nutrition spans at least three generations [6].

The Hardest Hit

According to the Food and Agriculture Organization (FAO), the ongoing economic crisis has pushed the number of undernourished people by 105 million, up to more than one billion — around one sixth of the global population [7]. Until 2006, the proportion of the undernourished in developing countries had been in steady decline; this trend has now been effectively reversed.

Though the severity of the impact of the recent global financial crisis on emerging and developing countries has yet to be determined, it has been compounded by a number of factors; these include the timing and scope of what is now a global economic recession. The financial crisis, which started in the United States and quickly spread to nations worldwide, came on the heels of a global food and fuel crisis that exhausted developing countries' capacities to cope with price shocks. Moreover, given the pervasive nature of the global economic recession, developing countries have limited, if any, ability to adjust to the current economic conditions.

The poorest and most vulnerable populations have been hardest hit. Certain particularly vulnerable countries, however, are worst affected. The Global Hunger Index (GHI) has ranked 23 countries as those most vulnerable to the current financial crisis [8]. All but one of these 23 countries are also included in the International Monetary Fund's 26-count list of countries that are most vulnerable to the global recession's adverse effects [9]. The 22 potentially worst affected countries are listed in the following table according to the GHI's severity ranking.

Economic Crises and Nutrition Vulnerability

Economic crises increase malnutrition in several ways, from fewer employment opportunities and lower earnings to more volatile commodity prices and restricted access to food.

It is true that the economic downturn has caused food prices to drop — but they are still high compared with four years ago, and it is increasingly expensive to eat a balanced diet. In Guatemala, for example, a diet based on corn tortilla, vegetable oil, vegetables and beans is twice as expensive as a less nutritious diet based on tortilla and vegetable oil alone [10].

Poor populations cope with higher food prices by shifting to less balanced diets, foregoing health care or education, selling assets, or eating less — all of which can increase the burden of malnutrition.

In Bangladesh, a 50 per cent rise in food prices has been estimated to increase the prevalence of iron deficiency among women and children by 25 per cent.

High food prices can also be a source of conflict — last year's price spike in wheat and rice, for example, led to riots in 30 countries.

The economic crisis will likely also reduce agricultural investment and productivity, further impacting food security and nutrition in developing countries. As banks cut lending, small farmers will find it harder to invest in agricultural production. Those who invested before the crisis may find themselves unable to pay off their debts.

Reducing agricultural productivity will compound the increasing reliance on food imports seen across the developing world over the past three decades. According to the FAO, in 2003, least-developed countries imported an average of 17 per cent of total grain consumed, 45 per cent of sugar consumed and 55 per cent of vegetable oil consumed. In Eritrea, a country that is highly dependent on food imports, 87 per cent of grains and 100 per cent of sugar consumed are imported. Ranked as having one of the lowest daily calorie availability scores worldwide, Eritrea is only able to cover about 25 per cent its import fees with its export earnings. For highly import-dependent or food-insecure countries like Eritrea, any decline in import capacity stemming from economic crises – in the form of rising food or fuel prices, lower external financial assistance, reduced demand for exports or limited foreign exchange availability – could have devastating food security implications [11].

The implications of an economic crisis on developing nations are far-reaching. To capture how economic crises affect the nutritional status of countries and regions, the components most relevant to these concepts have been integrated into a framework that focuses more exclusively on the impact of a financial crisis on nutrition through household consumption patterns. Included in the framework, presented as Figure 1, are possible policy interventions, which are positioned at appropriate entry points. These policy interventions are contained in ovals, whereas the components that direct the pathways of impact of economic crises on nutrition are contained in rectangles.

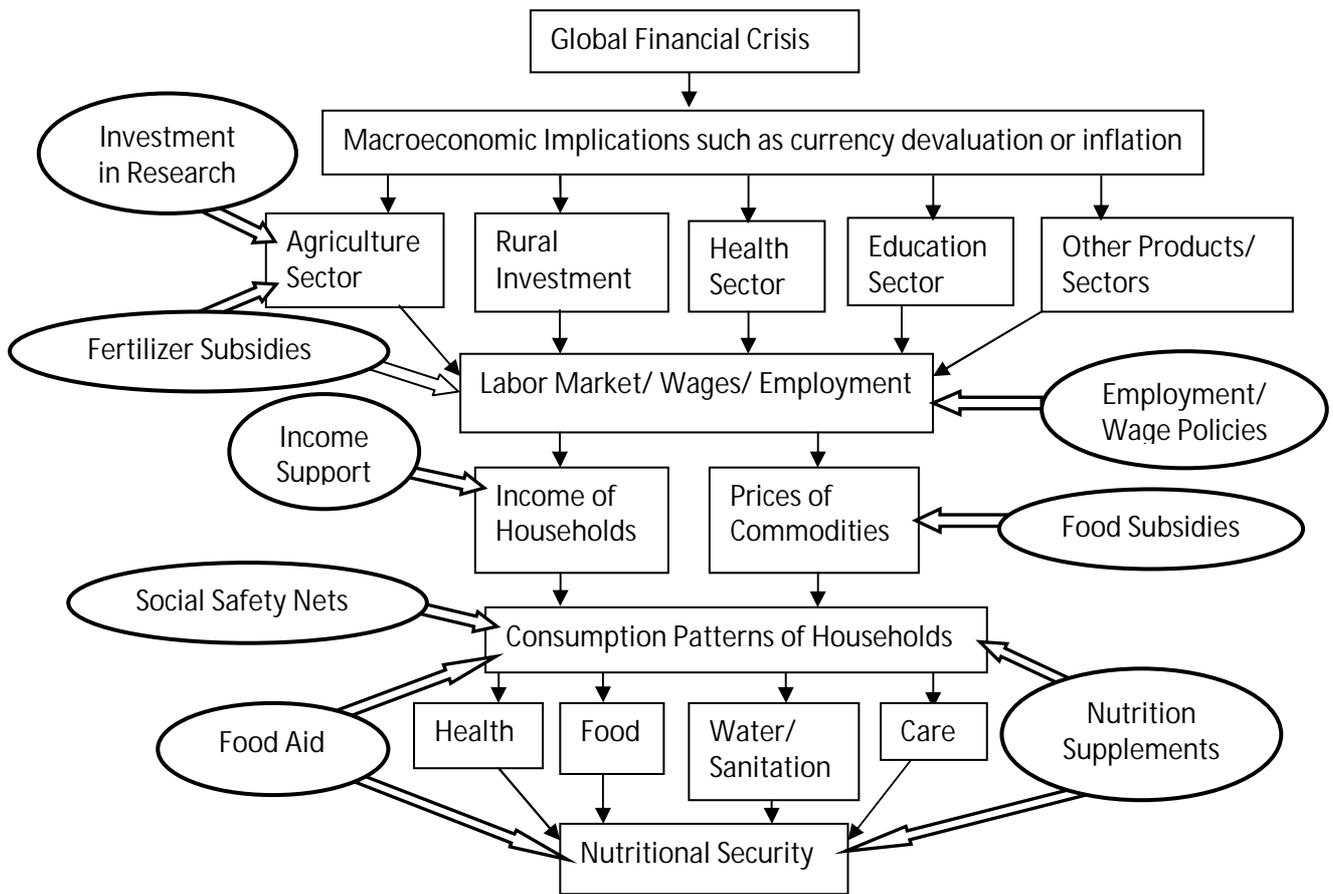


Figure 1: A Framework for Identifying the Pathways of Impact of Economic Crises on Nutrition

Past examples of how crises have affected developing countries' household consumption and nutritional security illustrate the dire need for timely nutritional interventions and social protection policies – interventions and policies that could help guide developing countries through the current economic crisis, ensure nutrition security and safeguard vulnerable populations. One such well-documented example is Indonesia in the aftermath of El Niño, in 1997, and the Asian economic crisis of 1998.

Though only Indonesia's eastern regions suffered from El Niño-induced droughts, the entire country experienced the resultant decline in food availability and accessibility. Therefore, before the Asian economic crisis hit in March of the following year, signs of food insecurity were already visible in a country that had just experienced two decades of steady economic growth. By mid 1998, major cities in Indonesia were beset by escalating food prices, diminishing purchasing power, shortages of rice and other food staples, and rising unemployment rates. Riots and repeated conflict caused

the collapse of many major cities' public and private transportation systems, resulting in a nonfunctional food distribution system [12].

According to Indonesia's Central Bureau of Statistics, the number of people living in poverty increased from 11 to 18 per cent of the total population between 1996 and 1998. During this time period, research has confirmed that effected households coped with the crisis by shifting their allocation of income away from vegetables, meat, health care and education and directed a greater share toward the purchase of food staples such as rice and oil. However, since food prices had drastically caused greater income allocations toward food staples, this meant that households purchased less food for their money. Consequently, in certain regions of Indonesia, the prevalence of iron deficiency tripled in infants aged 4 to 5 months while the percentage of children with anemia increased from 50 per cent to over 70 per cent. Additionally, Indonesia experienced a re-emergence of marasmus, a form of severe protein-energy malnutrition, and kwashiorkor, another form of childhood malnutrition [13].

Policy responses to reduce the widespread risk of malnutrition included food price subsidies, the provision of supplementary feeding to children and anemic mothers, and the revitalization of village nutrition centers and the nutrition surveillance system [14].

Learning to Cope

Nutritional interventions range from distributing food supplements, such as the case of Indonesia, to school feeding programs, while protection policies range from conditional cash transfers to rural employment programs. Long-term efforts to aid agricultural productivity, through, for example, fertilizer subsidies or investment in agricultural research — particularly in bio-fortified food crops or climate-proof crops — also help lower the burden of malnutrition in the developing world.

Some countries are already learning to cope. Examples of effective policy options can be found in Malawi, Ethiopia, Mexico and India. In 2005, water and nitrogen droughts resulted in 5 million Malawians requiring food aid. By October of that same year, Malawi's government initiated an input subsidy program that gave farm households a voucher entitling them to two 50-kg bags of fertilizer as well as improved maize seeds, available at around 37 per cent of their market price. Maize production more than doubled within one year's time, exceeding Malawi's national food requirement. Though over this time period Malawi also experienced better rainfall, the rains contributed to only about one third of the increased maize yield while the input subsidy directly contributed to the remaining two thirds yield increase. The program's continued success in the following year led Malawi to become a food aid donor to its neighboring countries [15].

Ethiopia's food aid through free distribution and food-for-work programs has played an important role in consumption, smoothing during times of droughts and shocks. Analyses show that receipts from both programs increased with negative rainfall and

livestock shocks and have had direct and positive impacts on child nutrition indicators, including weight-for-height [16].

Inadequate social protection mechanisms during and after the Tequila financial crisis of 1994 served as an impetus to Mexico's implementation of a conditional cash transfer program, which requires members of recipient households to demonstrate adequate school attendance and regular health clinic visits. With this program already fully operational, Mexico was able to help neutralize the adverse effects of the recent food and fuel crisis by implementing a supplementary "energy" payment to program participants [17].

Approximately three decades after the Indian state of Maharashtra introduced an Employment Guarantee Scheme, India implemented a similar version at the national level under the National Rural Employment Guarantee Act (NREGA). This Act guarantees up to 100 days of unskilled manual labor per family per year in rural India. Research on these programs suggests that participants have experienced sizeable income gains [18].

Though these examples offer a range of policy options that have effectively redressed some of the adverse effects of crises on vulnerable populations, there remain inordinate constraints on the achievement of food and nutrition security. Unless immediate action is taken to protect people from economic crises, reaching the Millennium Development Goal of reducing the number of undernourished people to no more than 420 million by 2015 will be impossible.

Conclusions

Estimates for 2009 indicate that there are 265 million undernourished people in sub-Saharan Africa alone [19]. This represents an urgent call to make certain that the negatives effects of the current crisis on human, and therefore social and economic, development do not persist. To do this, African nations must ensure the most vulnerable – specifically, the small scale farmers and urban poor – are protected from starvation and malnutrition in the short-term; increase agricultural productivity of both small and large scale farmers in the medium-term; and invest in human capital development in the long-term. These medium and long-term goals will require investments in research and institutional building for better service delivery, strengthening local governance in decentralized countries and implementing effective and well-targeted social safety net programs.

Targeting the agricultural sector, a sector that has proved more resilient than others, may help direct the continent back toward the path of economic growth, increased food security and reduced poverty that it had started on nearly a decade past [20].

Table 1: Countries Most Vulnerable to Adverse Effects of Global Financial Crisis

State of Severity	Highly Vulnerable Countries
Extremely Alarming State	Burundi, Democratic Republic of Congo
Alarming State	Angola, Central African Republic, Djibouti, Haiti, Liberia, Zambia
Serious State	Ghana, Lao People's Democratic Republic, Lesotho, Mauritania, Mongolia, Nigeria, Sudan, Tajikistan, Vietnam
Moderate State	Armenia, Honduras
Low State	Albania, Kyrgyz Republic, Moldova

(Source: IFPRI, 2009)

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