

Food Security, Policies and Institutions in Africa: Prospects for a Revolution

Ogujiuba Kanayo¹

Ogbonnaya Ufiem Maurice and Omoju Oluwasola Emmanuel

The current global financial crisis and economic meltdown has thrown up a number of questions. One of such, is how prepared national governments are to contend with the devastating food crisis plaguing the world generally and Africa in particular. In Africa for instance, this crisis is exacerbated by the fact that agricultural and food productivity per capita has been dwindling over the years; standing at about 2.5 per cent currently. This is abysmal when compared to population growth which stands at about 3.6 per cent. Nonetheless, political reforms as dictated by international financial institutions, which resulted in the democratization of political and administrative structures, have not been accompanied by socio-economic reforms and appropriate development policies, strategies and programmes that will enhance agricultural and food productivity. This has occasioned revolutionary pressures on African states and those who act on its behalf, and calls for urgent reappraisal of existing state policies, programmes and institutions on food security in Africa. This paper is part of the attempts at the reappraisal. It examines the challenges and problems of food security in Africa and identifies the prospects for a double green revolution in Africa. The paper recommends, as a strategy in tackling the food crisis, a restructuring of existing state institutions and collaborations among African states to ensure food sufficiency.

¹ Department of Statistics and Population Studies, University of Western Cape, Cape Town; South Africa. Email Address of Corresponding Author: kannyog@gmail.com

Department of Political Science & Public Administration University of Uyo Uyo – Nigeria
National Institute for Legislative Studies National Assembly, Abuja – Nigeria.

1. Introduction

One of the negative outcomes of the current global economic crisis is the devastating food crisis plaguing the world generally. Over the past five years, the world has been hit by a series of economic, financial and food crises that have slowed down, and at times reversed, global efforts to reduce poverty and hunger (IFAD, 2012). In Africa for instance, this crisis is more deepened by dwindling agricultural and food productivity per capita which stands currently at about 2.5 per cent. This is abysmal when compared to population growth which stands at about 3.6 per cent (Nzamujo, 2008:66). Low agricultural and food productivity in Africa is on the other hand caused by unfavourable climatic conditions, land degradation and natural disasters such as drought especially in the Horn of Africa, desertification and desert encroachment in other parts of Africa (IFAD, 2011; IFPRI, 2012). This has resulted in increased food prices in the region.

Consequently, ensuring food security has been a major thrust and central focus of policy agendas of many national governments not just in Africa but around the world. Achieving this objective was at the heart of the Rome Declaration on World Food Security in 1996, attended by 183 participating nations. It also formed the basis of the first Millennium Development Goal (Eradication of Extreme Poverty and Hunger) and an important part of the agenda in the last G8 Food Security Submit in May, 2012 (Karuku, 2012:43; Weekly Trust, 2012:54). However, government policies and efforts have been severally undermined by food price volatility, devastating drought in some parts of Africa, global population explosion, among other factors. This calls for urgent reappraisal of existing state policies, programmes and institutions on food security in Africa in order to identify the challenges and problems arising from these policies and programmes and also to identify the prospects for a double green revolution.

Structurally, the paper is divided into four major parts. Part one discusses basic concepts in their correct and critical perspectives. This is necessary to justify whatever directions our argument will lead to. Part two is a review of related literature on food security. While part three reappraises existing food security policies and programmes in Africa part four points the way out of the challenges and draws conclusion.

1.1 Conceptual Framework

The concept of food security is a new entrant in international development and political economy literature. Public interest in global food crisis grew following the world oil and related food crisis that occurred between 1972 and 1974. Though attention at this time was concentrated in the developed countries of Europe and the United States, the African famine of 1984-85 increased the numbers of people looking for food assistance in developing nations. This resulted in the quest to arrest the trend. As government policies and programmes increased, researches and studies along this line also increased resulting in growing number of literature on food security. Consequently, a large number of definitions of food security and related concepts have been developed. While Maxwell and Frankenberger (1992) have listed about 192 different studies on the concept and definition of food security and 172 studies on indicators, Hoddinott (1999) has identified a total of 200 definitions and 450 indicators of food security.

This array of studies and definitions has resulted in a somewhat disarticulated scholarly position on the concept of food security and other related concepts. Arising from this, some scholars have suggested alternatives to the term “food security” in an effort to avoid the perception of “food safety” or to shade the connotation of “food insecurity” being equated with only hunger and poverty (Maxwell & Frankenberger, 1992). Yet the concept of food security remains in wide usage among advocates working to meet global food demands (Benson, 2004; IFPRI, 2011; UNDP, 2012; IFAD, 2012).

Thus, the following definitions have evolved over time though critics have been concerned with the comprehensiveness of each of the definitions;

- i. According to Life Science Research Office (LSRO) (1990), food security is defined as access by all people to all times to enough food for an active, healthy life and includes at a minimum:
 - (a) The ready availability of nutritionally adequate and safe foods, and

- (b) The assured ability to acquire acceptable food in socially acceptable ways (e.g. without resorting to emergency food supplies, scavenging, stealing, and other coping strategies).
- ii. From the perspective of Food and Agricultural Organization (FAO) of the United Nations (1996), food security means that food is available at all times; that all persons have means of access to it; that it is nutritionally adequate in terms of quality, quantity and variety; and that it is acceptable within a given culture.
- iii. According to the World Food Summit (1996), food security is when all people at all times have physical and economic access to sufficient, safe and nutritious foods to meet their dietary needs and food preferences for active healthy life.

This definition was adopted in the Rome Declaration on World Food Security in 1996 and has been adopted by the United Nations, Government of Canada, World Health Organization and 183 participating countries in the conference.

- iv. Food and Hunger Action Committee (2000) defined food security as;
 - a. The availability of a variety of foods at a reasonable cost;
 - b. Ready access to quality grocery stores, food service operations, or alternative food service;
 - c. Sufficient personal income to buy adequate food for each household member each day;
 - d. The freedom to choose personally and culturally acceptable foods;
 - e. Legitimate confidence in the quality of the foods available;
 - f. Easy access to understandable, accurate information about food and nutrition;
 - g. The assurance of a viable and sustainable food production system.

Although the concept of nutrition security has received less attention in the literature compared to food security, Benson (2004) has observed that it constitutes a critical component in any discussion or any effort to bring about food security in any part of the world especially in Africa. Thus, the UNICEF conceptual framework of the determinants of nutritional status of children provides a succinct and useful way to understand nutrition security (UNICEF, 1990; Jonsson, 1993; Smith &

Haddad, 2000). From the UNICEF parameter, Benson (2004:9) has asserted that a household is said to have achieved nutritional security when it has secure access to food coupled with a sanitary environment, adequate health services, and knowledgeable care to ensure a healthy life for all household members. However, from the UNICEF perspective, nutritional security is more concerned with the utilization of the food obtained by a household and access to the food than with any other components. The differences in conceptualizing food security notwithstanding, there is a somewhat unanimity among scholars that quality (what kind of food?), quantity (how much food?), universality (who should get the food?), stability (when?) and dignity (how?) are universal components of the concept of food and nutrition security while availability (Household food production and crop diversity), access (Percentage food expenditure to total household expenditures), utilization (Degree of access to services-water, health and sanitation), and Stability (Stability of food prices and supply) are the set of indicators to be considered in any analysis of food and nutritional security (Maxwell and Frankenberger, 1992; Masters, 2012).

2. Review of Related Literature

Available literature on international development has considered food security from varied and divergent perspectives. Some have examined food security in relation to agricultural productivity, climatic condition and environmental issues. Those associated with this line of argument include Smith and Haddad (2000), Benson (2004), and Bouis and Hunt (1999). The argument here is that food crisis (insecurity) especially in Africa is caused by dwindling agricultural and food productivity which in itself is occasioned by unfavourable climatic conditions and environmental related issues such as droughts in the Horns of Africa and parts of the Sahel on the one hand and flood in the southern parts, on the other. Establishing a connecting link between agriculture and food crisis in Africa, the International Fund for Agricultural Development, IFAD (2011a) posit that declining public investment in agriculture, especially, in the developing world is at the root of the crisis. For instance, in 1979, official development assistance (ODA) aid to agriculture was 18 per cent of total ODA. By 2009, it was just 6 per cent. In developing countries, government investment in agriculture also fell in this period, by one third in Africa and by as much as two third in Asia and Latin America. In Africa for instance, agriculture remains the mainstay of

national economies. It employs about 90 per cent of the rural workforce, 60 per cent of the total (urban plus rural) labour force, and accounts for as much as 40 per cent of export earnings and provides over 50 per cent of household needs and income. Yet, as at 2003, the sector received the least attention from national governments (UNECA, 2007; NEPAD, 2009). This failure to invest in agriculture has kept millions of rural Africans trapped in a cycle of underproduction, underemployment, low incomes and chronic poverty (UNECA and AUC, 2009). On climate change and environment-related issues, (Headey, 2012) and Rena (2005) have asserted that unfavourable situations have created urban and rural poverty, chronic malnutrition and food insecurity. It is therefore, the submission of these scholars that “in any effort to improve food and nutrition security in Africa, agriculture must receive attention” (Haedey, 2012: 25). They have also opined that due to volatile food prices, there is need for the potentials of agriculture as a supplier of food, a source of income, and an engine of growth to be recognized (Benson, 2004: 50; Oriola, 2009).

Other scholars have considered food security from the view point of economic, socio-cultural and political role related issues. These include Maxwell and Frankenberger (1992), Onikoyi, Jr (2012), among others. For them, the concept of food security encompasses a wide range of food-related issues and it more completely reflects the complexity of the role of food in human society. The emphasis here is on secure access to food for a population, with a singular focus on the role of food as a vehicle for nutrition. It must however, be pointed out that food holds much more significance to humans than just its nutritional value. It can also have important symbolic, cultural, social and political roles. Food security, as a conceptual goal, has expanded to explicitly include more and more of these roles. The evolution of thinking reflects an attitude that society’s goals should reach beyond the ability of a country to produce and import enough food. Issues related to its production, distribution, availability and acceptability have become equally important.

Another group of scholars think of food security in relation to, population growth, health and disease prevalence. This line of thought is associated with Hopfenger and Pimentel (2001), Akhtar and Verhasselt (1990), Lunn and Theobald, (2006) and Iseki (1994), among others. The central argument of these scholars is that increased food demand

(resulting in food insecurity) is due to growth in world population and that attempt to intensify production to feed an increased population leads to a greater increase in population. To understand the nexus between population growth and global food crisis, one needs to appreciate that in 1999, the world population reached six billion and the United Nation estimates that the world population will exceed eight billion by 2025 and nine billion by 2050. Thus, “massive agricultural development will be needed to feed this added population” (Young, 1999: 6). What this means is that from the perspective of these scholars, population size is seen as the major determinant of amount of resources used. But as has been found in a study by Hopfenger and Pimentel (2001: 3) “as more food has been made available ostensibly to alleviate food shortages caused by the increased number of people, biologically determined response has been an increase in the population”. Thus the question of whether population growth causes food insecurity or whether excess food production results in population explosion remains a policy debate that has tasked the intellectual capabilities of population and development scholars.

Another fundamental issue raised by this group of scholars is the relationship among food crisis, population growth and human health. Here, available data indicate that due to global population growth, currently, about one billion people (precisely 840 million) are malnourished. The majority of this number (799 million) resides in developing countries, most of which are on the continents of Africa and Asia (WHO, 1996). The implication of this is that in many places, the number of humans exceeds the carrying capacity of the area in which they live. This group of malnourished people, according to Iseki (1994) is vulnerable to malnutrition, anemia, vitamin A deficiency, iodine deficiency, acute respiratory infections, malaria and fatigue. Iseki also asserts that food insecurity results in severe social, psychological, and behavioural consequences such as feelings of alienation, powerlessness, stress and anxiety which lead to reduced productivity, poor school performance, etc.

Drawing instances from around the world, Williams and Funk (2011) have considered the challenges of food security from the perspective of climatic conditions. According to them, climate change and global warming are considered major threats to agriculture and food production and have had immense negative impact on global food security. For

instance, in 2011 there were earthquakes in Japan, New Zealand, and Turkey; major floods in Pakistan, Southeast Asia, and Australia; and significant drought in the Horn (East) of Africa and parts of the Sahel.

With particular reference to Africa, in 2007, the United Nations predicted that ‘zones struck by drought in sub-Saharan Africa might increase from 60 million to 90 million hectares from now to 2060...’ and that ‘the number of people suffering from malnutrition might increase up to 600 million from now to 2080’. On 1 February 2008, the *Journal Science* published forecasts of Stanford University, California, which predicted that South Africa could lose more than 30% of its maize production from now to 2030. Catastrophic floods and severe droughts are inflicting heavy damage to sub-Saharan Africa’s ecosystems and agro-ecosystems, threatening the lives of tens of millions of people. For instance, on August 25, 2008, the United Nations’ humanitarian coordination in Chad announced that about 30,000 persons had been affected by floods in the south of the country. In Ethiopia, according to the Red Cross, 75,000 persons were severely hit by drought. The drought began with failed rains in the late 2010 and mid-2011. By August 2011; the peak of the drought, more than thirteen million people were in need of food assistance. The United Nations Children’s Fund (UNICEF) reported that more than 320, 000 children were suffering from severe malnutrition in Djibouti, Ethiopia, Kenya, and Somalia. The situation in Somali was particularly grave as four million people, more than half of the country’s population, were in crisis. Of these, 750, 000 were officially declared as famine. Since mid-2011, thousands are known to have died, especially infants and children (Williams and Funk, 2011).

Finally, food security in Africa has been examined from institutional dimensions. Aziz (2001), Kate Bird, David Booth and Nicola Pratt (2003), Oniang’o (2009) and Schwarzwadde (2012) are a few of the scholars in this group. According to them, food and nutritional crisis and insecurity arise due to the failure of government policies, programmes and institutions, political crisis and instability among other factors. With particular focus on East Africa, Onian’o (2009:4) has asserted that prolonged political crisis in the region has occasioned food/nutritional crisis. According to her, “in this region, conflicts may occur for a variety of reasons, ranging from inter-tribal resource competition to externally instigated wars”. In Southern African region, Bird, Booth and Pratt

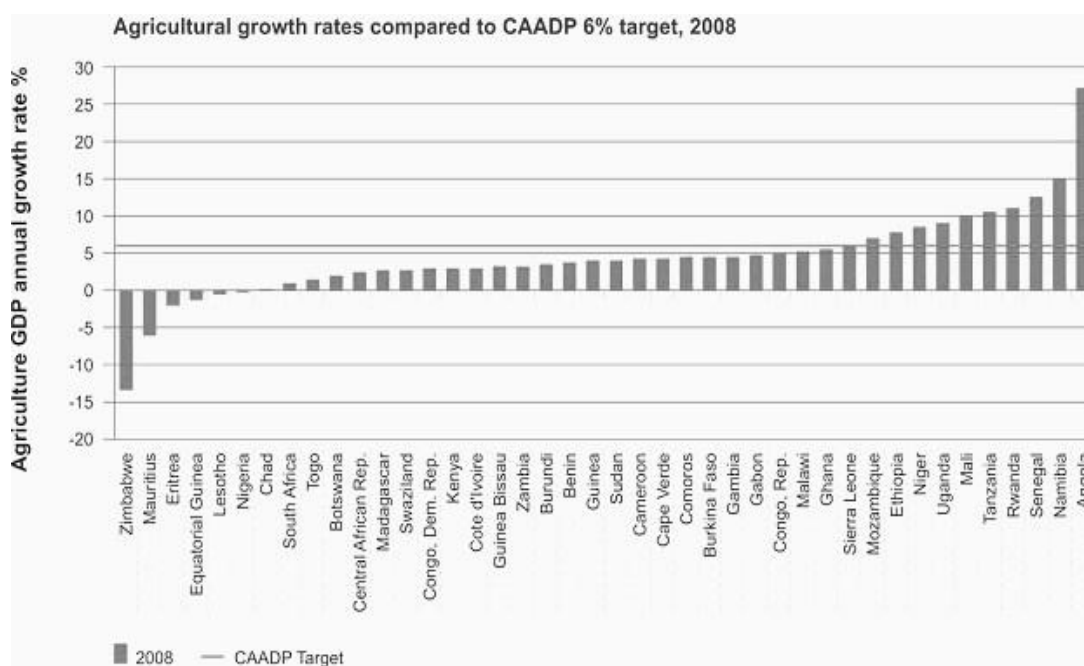
(2003) have examined the “political background to policy failure” that resulted in food security crisis within the region. In a Panel Discussion titled *Governance and Food Security: Acting in the Public Interest?*, Aziz (2001:2) considered the *Impact of Corruption on Food Security*. According to him, corruption which “concerns about standards of behaviour in the government sector as well as in international business transactions have impacted negatively on the implementation of sustainable food programs and other projects, the destructive nature of corruption manifests itself in that: (i) decisions are taken not for public benefit, and (ii) high cost, complex and prestigious projects invariably favoured over cost-efficient, community-based initiatives using appropriate technology”. All this are consequent upon the failure of government and the lack of will on the part of state actors to implement public policies.

3. Food Security in African: Appraising State Institutions, Policies and Programmes

Following the prevalence of food crisis and insecurity in Africa, a number of policy programmes and state institutions have been established to address the situation. These policy efforts towards food availability are seen in both the agricultural, educational and economic sector policy objectives and the various strategies that have been proposed or implemented.

In 2003, African heads of government through the New Partnership for Africa’s Development (NEPAD), adopted the Comprehensive African Agriculture Development Programme (CAADP). CAADP, according to Mkandawire (2009) is a common framework, tool and process for the restoration of agricultural growth and food security in Africa. It aims at helping African countries reach a higher path of economic growth through agriculture-led development through the allocation of 10 per cent of public expenditure to agriculture and expected 6 per cent annual agriculture productivity growth rate by 2015. As at 2008 which was the target year, only 7 countries (Burkina Faso, Ethiopia, Ghana, Guinea, Malawi, Niger and Senegal) have exceeded the target of allocating 10 per cent of their national budget to agriculture. Also, only 9 countries (Angola, Eritrea, Ethiopia, Burkina Faso, DRC, Gambia, Guinea-Bissau, Nigeria, Senegal and Tanzania) have exceeded CAADP’s targeted 6 per cent agricultural growth rate which is to be achieved by 2015. Another 4

countries have achieved growth rate of between 5 and 6 per cent (Mkandawire, 2009; NEPAD, 2013). This is shown in the graph below;



Source: Adapted from NEPAD (2013)

CAADP's work falls under 4 pillars, each dealing with key issues: Land and Water Management; Market Access; Food Security and Hunger; and Agricultural Research. However, this paper is concerned with pillar three; Food Security and Hunger. In Food Security and Hunger, which is Pillar 3, CAADP aims to increase food supply and reduce hunger across the region by raising smallholder productivity and improving response to food emergencies. Here, CAADP focuses on the chronically food insecure. The objectives of Pillar 3 are;

1. Improve domestic production and marketing;
2. Facilitate regional trade in food staples; and
3. Build household productivity and assets (NEPAD, 2009).

To achieve these objectives, CAADP has carried out the following programmes;

1. Regional Enhanced Livelihoods for Pastoral Areas (RELPA), funded by USAID (\$19.8 million). This Horn of Africa programme for enhancing livelihoods of pastoralists across three countries has been launched;
2. Regional Food Security and Risk Management Programme for Eastern and Southern Africa (REFORM), funded by the European Union (€10 million). This programme is mostly capacity building (i.e., skills transfer, technical studies, documentation of best practice, information sharing, policy dialogue, etc.).
3. Making Markets Work for the Poor: Enhancing Food Security and Productivity Growth in Eastern and Southern Africa (MMWP), funded by World Bank/DFID-UK (\$3.8 million). This project involves a three-year programme of practical analysis, policy outreach, consensus building, and capacity strengthening to promote the goals of national and regional food security, poverty reduction, and agricultural productivity growth.
4. Improved Regional Trade in Food Staples (RTFS), total \$5 million, with start-up funding by the World Bank. This programme of work aims to assemble spatial evidence on existing regional production and trade in food staples and to develop predictive analytical tools that will enable spatial mapping of the outcomes resulting from common natural and policy shocks.
5. Cassava Transformation in Southern Africa (CATISA), total \$2 million, with start-up funded by SIDA. The CATISA project aims to analyse and help accelerate cassava commercialisation in Southern Africa in order to help improve food security in the region.
6. Home-Grown School Feeding (HGSF), funded by the World Food Programme and DFID-UK (\$25 million). NEPAD, WFP and the Millennium Hunger Task Force (MHTF) launched a pilot Home-Grown School Feeding and Health Programme designed to link school feeding to agricultural development through the purchase and use of locally and domestically produced food (NEPAD, 2009).

In the framework of the African Union (AU), all member states committed to generate at least 6 per cent growth in the agricultural sector, and to invest at least 10 per cent of their national budgets to that end. The CAADP has further formulated rules for improving agricultural policy and sector investment planning and offers forums for dialogue with other African nations and the international community of donors.

However, Michael (2011) has observed that CAADP is far from realising its potential. What it has clearly achieved is making the African agricultural sector visible at the international level. At the continental and regional levels, the CAADP has created useful structures. However, these have yet to demonstrate their value. The processes that were created are now so far advanced at the all-important national level that their application raises expectations for significant improvements in agricultural planning. However, implementation is in its infancy and the value of older CAADP processes is somewhat doubtful. As at May 2011, only 26 countries have signed the CAADP Compact and incorporated the Compact into their agricultural agenda. Also, as at 2009, only 4 countries (Senegal, Kenya, Uganda and Malawi) have put machineries in place to deepen good governance and political stability, ensure policy and institutional reforms and encourage active participation of civil society organizations, agro-dealer networks, etc (Mkandawire, 2009; NEPAD, 2013).

Also, in response to food security crisis, African leaders attending the Abuja Summit of Food Security I Africa (December, 2006) committed to the following agenda:

1. Member states and RECs will promote and protect rice, legumes, maize, cotton, oil palm, beef, dairy, poultry and fisheries products as strategic commodities at the continental level and cassava, sorghum and millet at the sub-regional level, without prejudice to focused attention being given also to products of particular national importance;
2. AUC and NEPAD will facilitate the attainment of continental self-reliance by 2015 for the following: rice, maize, sorghum/millet and cassava, oil palm, beef, poultry, aquaculture (tilapia/cat fish); and to process 50 per cent of cotton produced in

Africa by 2015 while also making efforts to rapidly increase the share of local processing for other commodities;

3. Member States and RECs will take the following urgent measures to accelerate the development of the strategic commodities;
 - fast-track the implementation of trade arrangements adopted in the Regional Economic Communities (RECs) through lowering tariff barriers and the elimination of non-tariff barriers, both technical and non-technical, by 2010, and take account of these measures during global negotiations in the Doha Round and Economic Partnership Agreement (EPA);
 - Ratify and implement harmonized standards and grades, including sanitary and phytosanitary standards, within and across RECs by 2010;
 - Construct and maintain critical infrastructure to facilitate the movement of strategic agricultural products across national boundaries at minimal cost;
 - Request the AUC in collaboration with the RECs and development partners to develop continental and regional market information systems and to support the development of the same at national level by 2008 (African Union, 2010).

These efforts notwithstanding, Mkandawire (2009:2) noted that;

- Africa is characterized by poor economic performance in the last three decades;
- 32 out of 35 countries with low HDI are in Africa;
- 1/3 of the entire population of Africa currently live in chronic hunger – do not have enough food to eat;
- 45 per cent of Africa's population live under a dollar a day;
- In Africa, the number of food emergencies have tripled since the 1980s;
- Africa is the only continent where food aid delivery requirement is increasing (to rural populations; and
- Things could get even worse with the global environmental changes.

In 2012, the United Nations Development Programme (UNDP) reported that;

With more than one in four of its 85 million people undernourished, Sub-Saharan Africa remains the world's most food-insecure region. There are more than 15 million people at risk of malnutrition in its Sahel region alone – stretching from the Atlantic Ocean to the Red Sea – and an equal number in the Horn of Africa remain vulnerable after last year's (2011) food crisis in Djibouti, Ethiopia, Kenya, and Somalia (UNDP, 2012:32).

The implication of this assertion is that food insecurity and hunger are widespread in sub-Saharan Africa. This is largely due to the fact that 85-90 per cent of agriculture is rain-fed and accounts for 35 per cent of the region's gross national product (GNP), 40 per cent of exports and 70 per cent of employment. Domestic food production accounts for about 80 per cent of the region's consumption. The yield of roots and tubers in Africa is the lowest in comparison to the other regions of the world (McGranahm et al 1999; World Bank 2000; Baron, 2002; UNEP 2002).

This situation has in the recent years led to political and civil unrest in many African countries (Weely Trust, 2012; Lagi, Bertrand & Bar-Yam). According to Bellemare (2011), the second food crisis began at the end of 2010 and saw food prices increase by 40 per cent between January 2010 and February 2011. Once again, this rapid rise in food prices was associated with political unrest throughout the world, but it was perhaps most prominently associated with the so-called Arab Spring of 2011; a series of events which began with food riots in Algeria and in Tunisia in early January 2011, which led to the collapse of the Ben Ali regime in Tunisia and of the Mubarak regime in Egypt, and which is still unfolding in Syria and Yemen. The reasons for the situation are not farfetched. Basically, there is a fundamental issue beyond the rhetoric of unfavourable climatic conditions and natural disasters as being responsible for food crisis in Africa which are often espoused by state actors. Fundamentally, government policy programmes and institutions on food security in Africa suffer from multiplicity of problems. These include the absence of the political will on the part of African states and statesmen to confront the problem, political crisis and instability, political corruption and institutional inadequacies such as inadequate human resources, poor implementation of programmes, among other challenges. For instance, studies in Africa have shown that government

policies and programmes on food security are not accompanied with sincerity of purpose (Onikoyi, Jr, 2012; Ojo, 2012). Thus, state policies and programmes die before they are initiated.

Similar problems are associated with state institutions saddled with the responsibility of ensuring food security. With the preponderance of universities of agriculture and related research institutes in Africa, solutions to food crisis and insecurity should be readily and steadily proffered. Because these universities and research institutes are not adequately funded, their research efforts in this direction have not been rewarding. In 2000, global agricultural Research and Development (R&D) spending was US\$36.3 billion, of which 37 per cent was conducted by the private sector and 63 per cent, or about US\$23 billion, by the public sector. 93 per cent of the private research was conducted in developed countries. On the other hand, public agricultural R&D grew faster in the developing world, and is increasingly concentrated in China, India and Brazil. In stark contrast, public agricultural research in Sub-Saharan Africa grew at only about one per cent per annum in the 1990s, and in 2000 was around US\$1.6 billion. Sub-Saharan Africa has the lowest share of private agricultural R&D spending in the world—only 1.7 per cent of already low public spending. Of total agricultural research spending, donors provide about 40 per cent (in some countries 60 per cent). Only five African countries—Nigeria, South Africa, Botswana, Ethiopia and Mauritius—are paying the recurrent budget of their NARS from national sources. Collectively these data point to a disturbing development—a growing divide regarding the conduct of (agricultural) R&D—and, most likely, a consequent growing technological divide in agriculture. The measures also underscore the need to raise current levels of funding for agricultural R&D throughout the region while also developing the policy and infrastructure needed to accelerate the rate of knowledge creation and accumulation in Africa over the long haul (Pardey et al 2006; ODE, 2008).

On the other hand, political crisis and instability has been an enduring feature of the post-colonial African society. Scholarly literature has offered various reasons for this phenomenon – the Cold War, ethnic antagonisms and rent-seeking behaviour, among others. Political crisis and instability in Africa manifest in the form of violent change of government, armed insurgency, cross-border raids, inter-ethnic and religious crises and outright civil war. In Africa, there have been civil

wars in Nigeria, Liberia, Sudan, and since the early 1990s the African Great Lakes region – defined here as the Democratic Republic of Congo (DRC), Burundi, Rwanda, and Uganda – has been convulsed by genocide, civil wars, and inter-state conflict. This situation does not give room for continuity of regimes and their policies. Consequently, as regimes change at a high rate of rapidity, and as crises intensify state policies in all sectors of the economy are abandoned (Kron, 2011; Ong’ayo, 2008; Ake, 1973; Kieh, Jr. 2012).

Another factor that has fuelled food crisis and insecurity in Africa is political corruption. In Uganda, 7 officials of National Agricultural Advisory Services, NAADS, a government agency that oversees the management of food security and development programmes were arrested for the mismanagement of 9, 0000 US Dollars (20 million Shillings) while officials of Savings and Credits Cooperative Society, SACCO, established to help war widows organise agricultural and business projects in Uganda were accused of embezzling public funds worth 34,285 US Dollars (Oketch, 2009). In Zaire (now Democratic Republic of Congo), out of the US\$2 billion received in foreign aid during the over three decades of mal-administration of Mobutu Sese-Seko, about 50 per cent of the money ended up in private pockets (Anthonio-Costa, 2003). In Kenya, Transparency International, TI, reported that corruption constituted a major risk in food assistance in its “Analysis of the 2011 Drought Response in Kenya” (TI-K, 2012). In Somalia, the U.N. budgeted \$1.5 billion in 2012, partly to prevent a return of famine. But a large amount of food sent by the U.N. to the Somali capital during last year's famine never reached the starving people it was intended for. Some of the World Food Program supplies went to the black market, some to feed livestock. One warehouse full of rations was looted in its entirety by a Somali government official. And across the city, feeding sites handed out far less food than records indicate they should have (Hourel, 2012). In Egypt, Yussef Wali (former Agriculture Minister) was sentenced to 10 years in prison in 2011 for a deal that saw thousands of hectares of public lands worth 208 million Egyptian Pounds appropriated (Collard, 2012).

3.1 Prospects for Green Revolution in Africa: Case Study of Selected Countries

In the light of the current food security challenges facing Africa, what prospects are there for food security revolution? Despite the challenges, the prospects are high. Africa has the vastest arable land in the world and the percentage of the population of citizens employed in agriculture and the contribution of agriculture to GDP in African countries are encouraging as shown in Table 1.

Table 1: Importance of Agriculture to the National Economies

Country	Contribution of Agriculture to GDP (%)	Population Employed/Involved in Agriculture (%)
Benin	40	70
Burkina Faso	45	85
Congo	8	52
Mauritanian	22	NA
Morocco	15-20	40
Namibia	11	79
Sudan	40	80
Tanzania	50	85
Zimbabwe	11	71

Source: FAO Corporate Document Repository, 2011.

Also, according to the Permanent Interstate Committee for Drought Control in the Sahel (CILSS, September, 2011), the return of normal rainfall since August 2011 has enabled the definitive start of the growing season in Western Mali; Eastern and Northern Senegal; Southern Mauritania; Western Niger; the Sahelian zone of Chad; and Northern Nigeria². Also individual countries have initiated various policies and programmes to enhance the prospects of green revolution in Africa.

In 2000, the government of **Malawi** commissioned a study, financed by the European Commission, which was to form the basis for the new food security policy. The study concluded that a maize buffer stock of

² These are zones that were mostly affected by rainfall irregularities during the drought between 2008 and early 2011 (See CILSS, September, 2011).

between 30,000 and 60,000 metric tons would be sufficient to address a localized disaster. The size of the buffer stock was based on the use of early warning systems (which would signal an impending crisis six to nine months ahead), on the logistics of importing maize, and on the high cost of maintaining a maize buffer stock, which was generally about 20 percent of the value of the stocks themselves. Instead of a large physical buffer, the study recommended the build up of international reserves to finance any maize imports needed to prevent food shortages. The government of Malawi subsequently adopted these recommendations, which implied a substantial reduction from the large end-1999 stock to the level of 60,000 metric tons. Implementation also required a change in the NFRA's deed of trust to eliminate the possibility of price support interventions and to specify that the NFRA would engage only in disaster relief operations. These measures were supported by the World Bank's Third Fiscal Restructuring and Deregulation Program, approved by the Bank Board in December 2000 (IMF, 2002).

In **Nigeria**, successive governments since independence in 1960 have come up with various food security policies programmes such as the Green Revolution Programme (GRP) of the early 1960s, the Agricultural Development Project (ADP), the River Basin and Rural Development Authorities (RBRDA) of the 1970s, the Directorate for Food, Road and Rural Infrastructure (DFRRI), Operation Feed the Nation (OFN), Integrated Rural Development (IRD) of the 1980s, Family Economic Advancement Programme (FEAP), Better Life Programme (BLP), and Family Support Programme (FSP) of the military era in the 1990s which targeted urban and rural women. According to ECOWAS and NEPAD (2010), the Federal Ministry of Agriculture and Water Resources in Nigeria has developed the Nigerian Agriculture Investment Plan. The vision of the programme is to ensure sustainable access, availability and affordability of quality food to all Nigerians and for Nigeria to become a significant net provider of food to the global community. To complement the overall 8 percent growth target in the economy for 2010 – 2020, the government has set a target of 10 percent annual growth rate for the agricultural sector, compared to the 6 percent annual growth rate agreed to under the CAADP.

In **Sierra Leone**, the Agenda for Change which is the country's Second Poverty Reduction Strategy places priority on energy, infrastructure and

agriculture for national development efforts up to 2012. The government intends to “make agriculture the engine for socio-economic growth and development” (RSL, 2009:3).

In **Ethiopia**, agriculture is the mainstay of the economy. It accounts for 50% of the GDP, generates about 90% of export earnings, and supplies about 70% of input requirements of agro-based domestic industries. To boost food production, the government initiated plans to revitalise the agricultural sector. The emerging policy was entrenched in the Plan for Accelerated and Sustained Development to End Poverty (PASDEP), covering from 2006-2010 (Ndikumana, 2010).

These efforts have also been complemented by foreign donor agencies, the United States and European countries through substantial aid fund to Africa. For instance, Weekly Trust in May 2012 reported that the United States Government announced a \$3 billion plan to boost food security in Africa.

Zambia has vast agriculture potentials. In the 1960s, its hybrid maize production reached its peak and majority of the Zambian population still depends on agriculture for livelihood. Taking cognisance of the role of agriculture on economic development and poverty reduction, the Zambian government initiated a number of policies and programmes to promote green revolution in the country. One of such major policies was the Strategic Plan for Agriculture embedded in the Zambian Fifth National Development Plan. The mission of the policy was to facilitate and support the development of a sustainable and viable agriculture sector. The targets of the policy include ensuring that 90% of households are food secure; increasing agricultural foreign exchange earnings from 5 to 20% by 2015; improving productivity growth from 2% to 7-10%; and raising agriculture contribution from less than 20% to 30% by 2015. The policy focuses on significant private sector participation, increased financial inflow, and infrastructural development and support services. The new agricultural policy also emphasized a shift from maize towards oilseeds, legumes, cassava, wheat, paddy rice, sorghum, etc (Zambian Ministry of Agriculture and Co-operatives, 2004).

4. Challenges of Food Security in Africa: The Way Out

Despite these prospects highlighted above, much needs to be done. This requires the adoption of a new approach to all efforts towards food security. One of the new approaches is to ensure the enthronelement of good governance in Africa. Studies have shown that countries in which there is good governance reap the benefits through more stable and sustainable economic growth (ODE, 2008; OECD/FAO, 2012). Good governance here involves discouraging corrupt or inefficient practices, efficient and effective management of public resources by public office holders and promoting sustainable food security and agro-oriented public policies. Also, a more enlightened role for government also implies working side by side with NGOs, farmers' associations and the private sector in concerted efforts to articulate policies and improve on agricultural productivity. This is because effective, efficient, and sustainable policies that are well adapted to the local context can help countries maximize the prospects of food security in their respective countries.

Secondly, environmental conservation and enhancement plans are essential to building a lasting national food security system. In addition to the usual elements of conserving land, water and biological diversity and controlling pollution, such plans should be integrated with efforts to reduce the loss of high-potential arable land to other uses, to improve food security and to use integrated planning approaches and processes in order to assess population-supporting capacity, so that planning national investment in food and agriculture can be directed most efficiently (Rosegrant, Cline, Weibo Li, Sulser & Valmonte-Santos, 2005).

Thirdly, a restructuring and revamping of existing institutional mechanisms in Africa are needed to ensure food security³. This will encourage Research and Development (R&D) in agriculture, provision of agricultural extension services to farmers and smallholders and enhance or facilitate their access to technologies. Research should also be geared towards mitigating the causes and effect of climate change and environmental degradation on agricultural activities in Africa.

³ This entails human capacity development and adequate funding of state owned institutions.

Fourthly, new actors in global development—the private sector, philanthropic organizations, and emerging economies—have important roles to play in ensuring food security and reducing hunger in Africa and other developing countries. Emerging countries such as Brazil, China, and India can provide alternative experiences and technologies that may help African states increase their productivity and ensure food security. Information sharing between these emerging economies and African countries can be supported through the development of databases, information systems, and platforms for collaboration. Thus, beneficial partnership between Africa and the development community is recommended.

Finally, to end political crisis and instability which have impacted negatively on efforts at ensuring the eradication of hunger and food insecurity in Africa, global arrangements between African states and the international community to ensure the enthronelement and consolidation of democratic principles, must be reached.

4.1 Conclusion

That Africa is faced with chronic hunger; food insecurity and economic crisis is well established. It is also obvious that beyond the natural phenomenon of unfavourable climatic conditions, food insecurity and hunger in Africa are caused by variables such as institutionalized and political corruption, political crisis and instability, the lack of the political will on the part of state actors to ensure proper implementation of policies and institutional inadequacies. But the prospects for a reversal of this trend through ‘green revolution’ are reasonably high.

References

African Union (AU) (2010), Comprehensive Africa Agriculture Development Programme: Pillar III Framework for African Food Security (FAFS), 4th Conference of African Union Ministers of Agriculture Member States Expert's Meeting, February 26 – 27, Addis Ababa, Ethiopia.

Ake, C. (1973), "Explaining Political Instability in New States", *Journal of Modern African Studies* (II), 347- 259.

Akhtar, R. and Verhasselt, Y. (1990), *Disease, Ecology, and Health: Readings in Medical Geography*, Jaipur, Rawat Publications, India.

Antonio-Costa, C. (2003), UN Countries Reveal Cost of Corruption <http://www.globalpolk:y.org/nations>. Retrieved, 17th February, 2009

Azizi, T. A. (2001), The Impact of Corruption on Food Security. Paper presented at a Panel Discussion on Governance and Food Security: Acting in the Public Interest? Organized by International Food Policy Research Institute, Bonn, Germany, September 4–6

Baro, M. (2002), "Food Insecurity and Livelihood Systems in Northwest Haiti", *Journal of Political Ecology*, Vol. 2, pp. 1 – 34.

Bellemare, M. F. (2011), *Rising Food Prices, Food Price Volatility, and Political Unrest*, Stanford School of Public Policy, Duke University, Durham, United States.

Benson, T (2004), "Africa's Food and Nutrition Security Situation: Why are We Here and How Did We Get Here?" International Food and Policy Research Institute (IFPRI) 2020 Discussion Paper 37.

Bird, K. Booth, D and Pratt, N. (2003), *Food Security Crisis in Southern Africa: The Political Background to Policy Failure*, Forum for Food Security in Southern Africa: Overseas Development Institute. Available at www.odi.org.uk/food-security-forum

Bouis, H. and Hunt, J. (1999), "Linking Food and Nutrition Security: Past Lessons and Future

Opportunities”, *Asian Development Review* 17: 168 – 213.

Collard, R. (2012), *Crony Capitalism undermines Egyptian Food Security*, *The National*, April 12. Retrieved January 9, 2013 from <http://www.thenational.ae/arts-culture/crony-capitalism-undermines-egyptian-food-security>

Derereux, S. (2006), “Vulnerable Livelihoods in Somali Region, Ethiopia”, *Research Report No. 57*. Sussex, UK: Institute for Development Studies.

ECOWAS & NEPAD (2010), *CAADP Post Compact Review, Nigeria: Technical Review Report*, June 23, 2010, Dakar, Senegal.

Food and Agricultural Organization (FAO) (1996), *Household Food Security and Community Nutrition*. Retrieved on June 11, 2012 from www.fao.org/ag/agn/nutrition/household_en.stm.

Govere, J. and Weber, M. (2008), *Zambia Agricultural Policy: Finding a Balance between Public Facilitation and Private Sector-led Growth*, Paper presented at a Mini-Workshop on Agricultural Policy in Zambia, held on 7th October at Chrismar Hotel, Lusaka

Headey, D. (2012), “Déjà vu in the Horn of Africa”, 2011 *Global Food Policy Report*, International Food Policy Research Institute (IFPRI), Washington, DC.

Hoddinott, J. (1999), *Operationalizing Household Food Security in Development Projects: An Introduction*, Technical Guide No. 1. International Food Policy Research Institute, Washington, DC.

Hopfenberg, R. and Pimentel, D. (2001), “Human Population as a Function of Food Supply”, *Minnesotans for Sustainability*. Retrieved from www.oilcrash.com/population.htm

Hourel, K. (2012), *AP Exclusive: How Somalia Famine Aid Went Astray*, *Associated Press, Deseret News*, Saturday March 17. Retrieved January 9, 2013 from <http://www.deseretnews.com/article/765560647/AP-Exclusive-How-Somalia-famine-aid-went-astray.html>

Hunger Action Committee (2000), “Phase I Report, Planting the Seeds”, OHPE Bulletin 370, Ontario Health Promotion E Bulletin, Volume 2004, No. 370.

International Food Policy Research Institute (IFPRI) (2012), 2011 Global Food Policy Report. IFPRI, Washington, DC

International Food Policy Research Institute (IFPRI) (2011), Increasing Agricultural Productivity and Enhancing Food Security in Africa: New Challenges and Opportunities, IFPRI, Washington, DC.

International Fund for Agricultural Development (IFAD) (2012), The Future of World Food and Nutrition Security: Investing in Smallholder Agriculture – An International Priority. Retrieved on June 11, 2012 from www.ifad.org/hfs/

International Fund for Agricultural Development (IFAD) (2011), Horn of Africa: The Rains will Fall in 2015, 2016, or 2017, But Must We Also Fail? Retrieved on June 11, 2012 from www.ifad.org/media/press/2012/48.htm.

International Monetary Fund (IMF) (2002), Malawi—The Food Crises, the Strategic Grain Reserve, and the IMF, IMF Factsheet, July 2002.

Iseki, M. (1994), “Effects of Increases in the World’s Population and the Globalization of Human Life on the Incidence of Parasitic Diseases”, Japanese Journal of Parasitology 43 448 – 452.

Jonsson, U. (1993), Integrating Political and Economic Factors within Nutrition – Related Policy

Research, in Pinstrip-Andersen (ed.), The Political Economy of Food and Nutrition Policies, John Hopkins University Press, Baltimore, MD, USA.

Karuku, J. (2012), The G8 and Africa’s Food Security: Time to Scale Up, Speed Up and Invest Up, Thisday, May 24, p. 43.

Kieh, G. K. Jr. (2012), “Neo-Colonialism: American Foreign Policy and the First Liberian Civil War”, *The Journal of Pan African Studies*, 5 (1), 164 – 184, March.

Kron, J. (2011), *Protests in Uganda Over Rising Prices Grow Violent*, *The New York Times*, April 21.
http://www.nytimes.com/2011/04/22/world/africa/22uganda.html?_r=1.

Lagi, M., Bertrand, K. Z. and Bar – Yam, Y. (2011), *The Food Crises and Political Instability in North Africa and the Middle East*, New England Complex Systems Institute.

Life Sciences Research Office (1990), *Federation of American Societies for Experimental Biology. Core Indicators of Nutritional State for Difficult-to-Sample Populations.* (AIN) S.A. Anderson (ed.) (p. a-1).

Lunn, J. and Theobald, H. E. (2006), “The Health Effects of Dietary Unsaturated Fatty Acids”, *Nutrition Bulletin* 31 (3), 178–224, September

Masters, E. (2012), *Indicators of Food Security.* Food and Agricultural Organization. Available at <http://www.fao.org/bioenergy/19792-0753af3f78b224e36969a69321e3af410.pdf>

Maxwell, S. and Frankenberger, T. (1992), *Household Food Security: Concepts, Indicators, and Measurements: A Technical Review*, United Nations Children’s Fund (UNICEF) and International Fund for Agricultural Development (IFAD), New York and Rome.

McGranaham, G. et al (1999), *Environmental Change and Human Health in Countries of Africa, the Caribbean and the Pacific*, Stockholm Environment Institute, Stockholm.

Michael, B. (2011), *African Developments: The Comprehensive Africa Agriculture Development Programme (CAADP) as an Opportunity for African Agriculture.* Bon: German Development Institute.

Mkandawire, R. (2009), *A Review of The Comprehensive Africa Agriculture Development*

Programme: A Focus on Achievements. Paper presented at Pretoria, South Africa on 19 – 20 February

NEPAD (2009), Comprehensive Africa Agriculture Development Programme (CAADP): A New Vision for Africa Agriculture. Available at [www.nepad-caadp.net/...](http://www.nepad-caadp.net/)

NEPAD (2013), Comprehensive Africa Agriculture Development Programme (CAADP): Coordinating Agriculture and Food Security. Available at <http://www.nepad.org/foodsecurity/agriculture/about>

Nzamujo, (2008), Food Security and Development in Africa, Sustainable Rural Growth: As the Key to the Reduction of Poverty. Paper presented at the International Conference on Food Security on the theme “World’s Food Challenges: Nigeria’s Economic Opportunity” held at Sheraton Hotels and Towers, Abuja, Nigeria on 23rd – 24th July.

OECD/FAO (2012), Agricultural Outlook 2012 – 2021. http://dx.doi.org/10.1787/agr_outlook-2012-en

Office of Development Effectiveness (ODE) (2008), Food Security in Africa: Towards a Support Strategy for Australia. Australian Government: www.ode.aisaid.gov.au

Ojo, D (2012), Why Nigeria May Not Achieve Food Security. The Nation, May 14.

Oketch, B. (2009), Corruption Exacerbates Food Crisis, Institute for War and Peace Reporting, AR No. 219, June 23, Uganda.

Ong’ayo, A. O. (2008), Political Instability in Africa: Where the Problem Lies and Alternative Perspectives. A paper presented at the symposium 2008: “Africa: een continent op drift”. Organized by Stichijs National Eatgeed Hotel De Wereld Wageningen, September, 19. [politicalinstabilityinwestafrica.pdf](#).

Oniang’o, R. (2009), Food and Nutrition Emergencies in East Africa: Political, Economic and Environmental Associations, IFPRI Discussion Paper 00909, International Food Policy Research Institute.

Onikoyi, O. Jr., (2012), Nigeria: The Economics of Food Security, The Nigerian Village Square. Retrieved on July 19, 2012 from [www.nigeriavillagesquare.com/articles/...](http://www.nigeriavillagesquare.com/articles/)

Oriola, E. O. (2009), "A Framework for Food Security and Poverty Reduction in Nigeria", *European Journal of Social Sciences* 8 (1) 132 – 139.

Pardey, P., Jenni, J., Julian, A., Stanley, W, Bonwoo, K., Era, B., Terry, H., and Paul, G. (2006), *Science, Technology and Skills*, Rome, Science Council, Mimeo.

Permanent Interstate Committee for drought control in the Sahel (CILSS) (2011), *Statement on the Agricultural and Food Prospects in the Sahel and in West Africa*. Banjul: The Gambia, September 16.

Rena, R. (2005), "Challenges for Food Security in Eritrea: A Descriptive and Qualitative Analysis", *African Development Review*, 17 (2), 193 – 212, September.

Republic of Sierra Leone (RSL) (2009), *Comprehensive Africa Agriculture Development Programme (CAADP): Compact to Support the Implementation of the national sustainable Agricultural Development Plan (NSADP) of Sierra Leone*, Freetown, Friday 18th September.

Rosegrant et al. (2005), *Looking Ahead: Long-Term prospects for Africa's Agricultural Development and Food Security*, IFPRI, Washington D.C.

Schwarzwalder, R. (2012), *Hunger, Plenty, and Population*. Issue Brief IF12I01, Family Research Council, Washington, DC

Simth, L. C. and Haddad (2000), *Explaining Child Malnutrition in Developing Countries: A Cross-Country Analysis*. International Food Policy Research Institute (IFPRI) Research Report 111, IFPRI, Washington, DC.

Transparency International (TI) Kenya (2012), Food Assistance Integrity Study: Analysis of the 2011 Drought Response in Kenya, Transparency International-Kenya.

United Nations Children's Fund (UNICEF) (1990), "Strategy for Improved Nutrition of Children and Women in Developing Countries", A UNICEF Policy Review, New York.

United Nations Development Programme (UNDP) (2012), African Development Report 2012: Towards a Food Secure Future, UNDP Regional Bureau for Africa, New York.

United Nations Environmental Programme (UNEP) (2002), Africa Environment Outlook: Past, Present and Future Perspectives, UNEP, Nairobi, pp 422.

United Nations Economic Report on Africa (UNECA 2007), "Economic Report on Africa: Accelerating Africa's Development through Diversification, Addis Ababa.

UNECA and AUC. (2009), "Economic Report on Africa 2009: Developing African Agriculture through Regional Value Chain". Addis Ababa.

Weekly Trust (2012), Obama Unveils US Food Security Plan for Africa, Saturday, May 19, p. 54.

Williams, A. P. and Funk, C. (2011), "A Westward Extension of the Warm Pool Leads to a Westward Extension of the Walker Circulation, Drying Eastern Africa", *Climate Dynamics* 37 (11-12), 2417 – 2435.

World Bank (2000), *Attacking Poverty: Opportunity, Empowerment, and Security*. Retrieved on August 15, 2012 from www.siteresources.worldbank.org/INTPOVERTY/R.

World Food Summit (1996), *World Food Summit Plan of Action*. Retrieved on June 11, 2012 from www.fao.org/main_en.htm.

World Health Organization (WHO) (1996), “Micronutrient Malnutrition: Half the World’s Population Affected”, WHO No. 78, pp 1-14, November 13.

Young, A (1999), “Is There Really Spare Land? A Critique of Estimates of Available Cultivable Land in Developing Countries”, *Environment, Development and Sustainability* 1 (1), 3 – 18.

Zambian Ministry of Agriculture and Co-operatives (2004). *National Agricultural Policy (2004-2015)*, Zambian Ministry of Agriculture and Co-operatives, Lusaka