FOOD SECURITY IN SUB-SAHARAN AFRICA:

THE ROLE OF FOOD AID AND TRADE LIBERALIZATION

by

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Abstract

The world's resources are adequate to produce enough food for its population. However, sub-Sahara Africa (SSA) faces a daunting task of feeding its population, and thus, it is threatened by food insecurity. The food problem is aggravated by poor economic performance, high population growth rates, persistent drought, and gross political neglect. Achieving food security is a complex process. It involves collaboration among socioeconomic and political processes. Since multiple shocks (natural, economic, social, and health) affect food prospects, a sustained multi-sectoral approach emphasizing food production, imports, storage, income generation, and a well-functioning welfare system are needed at different levels of society. These will enhance food access, availability, and utilization, the tenets of food security.

I argue that, the economy of SSA is not globally competitive. Limited access is granted to foreign markets, especially to agricultural products. This has undermined national and household incomes, thus increasing poverty. While the link between trade liberalization, food aid, and food security continue to be debated, the project has found that they play a limited role in increasing per capita food access and availability. The motives and policy dynamics behind food aid undermine its reliability and sustainability. The import of grains, the main food import to SSA, only plays an insignificant part in the overall food availability and access. To restore hope in SSA food security, reducing poverty and promoting the main sources of food are essential. This can be achieved by integrating various approaches which positively impacts SSA food initiatives. Trade and food aid alone will not suffice in the absence of long term policy initiatives involving sustained food production, preservation, and economic empowerment of the poor.

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List of Acronyms

ACC	United Nations Administration Committee on Coordination
AIDS	Acquired Immune Deficiency Syndrome
DAW	Division of the Advancement of Women
EU	European Union
FAO	Food and Agricultural Organization
FCND	Food Consumption and Nutrition Division
FIVIMS	Food Insecurity and Vulnerability Information and Mapping Systems
GATT	General Agreement on Trade and Tariffs
GM	Genetically Modified
HIV	Human Immunodeficiency Virus
IAWG	Inter-Agency Working Group
ICRW	International Center for Research on Women
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
NGO	Non-Governmental Organization
ODA	Overseas Development Assistance
ODI	Overseas Development Institute
SAP	Structural Adjustment Programs
SNC	United Nations System Standing Committee on Nutrition
SSA	Sub-Saharan Africa
UN	United Nations

UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programs
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
US	United States
UNFPA	United Nations Family Planning Agency
WB	World Bank
WFP	World Food Program
WFS	World Food Summit
WHO	World Health Organization
WRI	World Resource Institute
WTO	World Trade Organization

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Chapter 1

Introduction

1.1 Food security definition and dimensions

The concept of food security has evolved considerably over time (Hoddinot, 1999; Hall, 1998). However, it has been defined by the World Bank (WB) as being achieved "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (World Bank, 1986, p.1; WFS, 1996, p. 1; for similar definitions, see also FAO, 1996a; Madeley, 2000; Shaw, 2002; Thomson and Metz, 1997).

Since the World Food Conference in 1974, the food security concept has centered around two sub-concepts: food availability and food entitlement. Food availability refers to the supply of food available at local, national, or international levels. Food entitlement refers to the capability of individuals and households to obtain food by either trade-based, production-based, labour-based, or transfer-based entitlements (Sen, 1981). According to Sen, hunger occurs not because of an insufficient supply of food, but because people have insufficient resources, including money ('entitlement') to acquire it (Sen, 1981).

Another aspect of food security is food utilization. For proper utilization of food, adequate diet, sanitation, and healthcare are required. The three pillars of food security, food availability, access, and utilization are difficult to achieve as a package in SSA. The complexity arises due to economic, social, political, and cultural factors involved in food production, distribution, access, and utilization.

In 1991, the Sub-Committee on Nutrition of the United Nations Administrative Committee on Coordination (UNACC/SCN) argued that, "a household is food secure when it

has access to the food needed for a healthy life for all its members (adequate in terms of quality, quantity, safety, and has to be culturally acceptable), and the risk of losing such access should be low" (UNACC/SCN, 1991, p. 6). While Sen's entitlement relations explain food security, the UNACC/SCN argues for adequacy in terms of quantity, quality, safety, and the cultural acceptability of food.

In this project, food security will refer to physical and economic access to food while recognizing the quality, safety, and cultural acceptability of it. In essence, the supply of food needs to match the demand for food at all times. Economically, the available food should be affordable by individuals and households. Culturally, the food should not contrast the cultural preference and safety concerns of consumers.

It should be noted that, lack of food security is food insecurity. Two forms of food insecurity exist (Gladwin et al, 2001). Chronic food insecurity is a long term problem caused by lack, at the household level, of income or assets to produce or buy food adequate for the household. Transitory food insecurity is a short term food problem caused by a shock to the food production or economic system, where income or resources necessary to adjust to the shock are not available (Gladwin et al, 2001). SSA suffers mainly from chronic food insecurity (Devereux and Maxwell, 2001). This is unsuitable for broad based economic growth and development. Thus, there is need for a sustainable food level and food system. The need to address temporary food deficits due to lack of income and low food production and chronic or structural food deficits caused by factors with long term impacts (Bohnet, 1997) is essential for development. This may be achieved by food production or provision, trade facilitation, resource transfer (food aid), and private sector investment in food projects.

The success depends on the level of intervention, the partnerships among individuals, households, national governments, and the international community.

1.2 Background and food security trends

The developing world, confronted with an overwhelming population growth (WRI, 2002), is faced with a daunting task of feeding its population. Globally, there is enough food for all. In sub-Sahara Africa (SSA), there is low food production due to poor farming methods (Braun et al, 2003) and low level of food imports, the main food sources. The situation is exacerbated by the poor economic performance of SSA (Rakodi, 1996; Fuchs, Brennan, Chamie, Lo and Ulito, 1994) manifested in low national and individual incomes, limited export base, and restricted access to world markets. These factors undermine food production and imports to meet the shortfall. During the 1980s and 1990s, incomes stagnated, employment declined, and poverty worsened in many developing countries. However, "nowhere has the situation been more severe than in SSA" (Todaro, 2000, p.708).

Many factors, some beyond SSA control, are responsible for the economic hardships. The heart of SSA dilemma is attributed to, among others, "persistent drought, rapid population increase, diminished foreign and food aid, the loss of export revenues, and the destruction of fragile ecosystem" (Todaro, 2000, p. 710). Thus, SSA is unable to feed its people (food insecurity), the main focus of the project. Further, falling prices for key exports, debt service obligations, and poor development policies (UNCTAD, 2000) frustrate the food cycle. I know that sound economic prosperity is fundamental for the sustainability to all aspects of life, including food. It is not surprising food insecurity in SSA is getting worse than other world regions as shown in Table 1 (p. 17).

The Food and Agricultural Organization (FAO) puts it more bluntly that "the state of food security in the world is not good" (FAO, 2002b, p.1). The FAO (2001a, p. iv) argues that "the tragedy of hunger amidst plenty is a stark reality in today's world." Despite the global food inequity, the 1994 United Nations *Human Development Report* described food security as an aspect of human security. Food security has a mutually interactive relationship with other forms of security, namely, economic, health, environmental, personal, and political. Against this background, "almost 200 million people in SSA, 28% of the population, are chronically hungry and nearly 13 million in Southern Africa alone are facing starvation" (Shaw, 2002, p. 572). Projections by the FAO indicate an increase to 264 million by 2010 (FAO, 2001a). Child malnutrition caused by hunger, expected to fall in other regions, is projected to rise in SSA (UNICEF, 2002). "Of the world's 150 million malnourished children in 2000, 52% were in SSA" (Shaw, 2002, p.573). These estimates indicate a severe food security problem in SSA.

The trend in the entire developing world is not good either. About 20% of the developing world's total population was chronically hungry during the 1990s, with East Asia having 32% hungry, South Asia, 30%, and SSA, 28% (FAO, 1996a). The global trend is equally grim. With the global population projected to rise to 8.3 billion by 2025, food security could worsen unless policy measures are taken to avert the threat.

Since the early 1970s, the gap between food production and population growth in SSA has been widening (World Bank, 1997c; Pinstrup-Andersen and Pandya-Lorch, 1998). This gap needs to be narrowed. Out of 46 countries designated by the United Nations as "least developed," 32 are in SSA, and they face widespread chronic food insecurity and persistent threats of famine (Devereux and Maxwell, 2001). Hunger undermined SSA's

attempts to assure the minimum requirement of 2,200 calories per person per day for most people to date (FAO, 1997a). SSA remains worse off in terms of hunger amidst resources critical for hunger reduction. Hunger approaches need to change from the 'business as usual approach' if food security is to improve.

1.3 Theoretical considerations and levels of food security analysis

Food insecurity is as old as civil society. It is a complex political, economic and moral problem of the time. Yet, food security is a measure of development, especially in low income countries (FAO/WHO, 1992). Food security analysis requires the understanding of how people get their food. In SSA, food is obtained from domestic food production, transfers from government or between people, food aid and food imports. The main source of SSA food is domestic production (FAO, 1996a). For the sustainability of food, there needs to be mechanisms for food preservation, a well-functioning welfare system, a fair trade policy, and substantial food imports. However, poor weather, traditional methods of farming, poor food policy, and lack of storage facilities undermine the sustainability of food. In my culture, the traditional food preservation methods (in granaries) are slowly but surely disappearing due to low food production. In Uganda, national food reserves are highly unreliable and at times non-existent. This is made worse by lack of income and lack of a well-functioning welfare system to facilitate access to food. The prevalence of poverty inhibits physical and economic access to available food and reduces local food production. In turn, the quantity and quality of food accessed is compromised.

While food aid has been used in emergency situations, it is not always adequate to meet the food shortfall and is highly unreliable. The targeting of food aid programs leaves many people affected by the chronic food problem uncovered. The viability of trading as an

alternative source of food is undermined by the lack of income to buy the food. At the same time, food imports are an insignificant portion of overall food availability in SSA. This is further undermined by poor economic prospects. The unfavorable global trade further complicates the national and household food situation. Thus, while SSA grapples with the problem of sustained food production and food preservation, the future of food aid and trade in food security remain uncertain.

Food security has many levels: global, national, local and family (WFP, 1998). Ultimately, food security is about individuals. The level of intervention determines policy responses to the food problem. However, internal and external dynamics limit approaches to food security. Poor and variable climates, political instability and civil strife, population growth, low productivity, lack of infrastructure, intra-household decision making, and poor policies (Peterson, 2002, p. 1) affect food production and consumption. These factors operate at different levels and have different impacts on food access and availability. Thus, the role of government in food matters is essential. With effective food policies, national governments can increase food production and imports to meet the food shortfall of its people. The major issue is the inequity in food distribution at all levels.

According to Sen, entitlement relations contribute to food security (Sen, 1981). However, political and civil strife, lack of income, and low productivity affect trade based entitlements. Likewise, poverty and poor climate hamper production-based entitlements. Transfer-based entitlements are affected by poor government policies and household economic stress. At the same time, conflicts and low prices of labour affect labour-based benefits. The result is poverty, entitlement failures, and ultimately, food insecurity. Food

security can only be achieved when sufficient food is available, food supplies are stable, and those who need, should be able to obtain it.

1.4 International attention and evolution of policies

Since 1920, estimates show that more than 120 international declarations, conventions and resolutions have been reached on various issues relating to the right to food (Pinstrup-Andersen, Nygaard and Ratta, 1995). "The right to food and the elimination of hunger were enshrined in the in the *Universal Declaration of Human Rights,* adopted at the United Nations (UN) in New York in 1948; in the *Universal Declaration on the Hunger and Malnutrition,* passed at the World Food Conference in Rome in 1974; in the *World Declaration on Nutrition,* approved at the International Conference in Rome in 1992; and at the World Food Summit in 1996" (Shaw and Clay, 1998, p. 57). However, while many UN agencies, bilateral programs, and non- governmental organizations (NGOs) have targeted SSA food security, little progress has been made in its improvement.

In 1996, the World Food Summit (WFS) was convened, attended by 185 countries, the European Union (EU), 24 UN agencies, 55 other inter-governmental organizations, and 457 NGOs. They pledged to achieve a measurable and monitorable goal "... to eradicate hunger in all countries, with an immediate view to reducing by half the number of undernourished people (from 800 million to 400 million) no later than 2015." (FAO, 2001b, p. 1). At present, the WFS global projection of 650 million hungry by 2005 is way off its goal (FAO, 2001b). In SSA, the situation has worsened (see Table 1, page 17).

It is known that hunger in SSA has socioeconomic effects in other regions. Still, some remain pessimistic about hunger reduction. Shaw and Clay (1998, p. 59) argue, "... that as hunger becomes "everybody's business," it may become nobody's business." The pessimism

arises due to the multi-faceted and multi-dimensional nature of food system. Thus, there is need to assess the effectiveness of programs and policies already tried.

The project focuses on the links between poverty and food security, food aid and food security, and trade liberalization and food security. While international policies raise some optimism, lack of domestic commitment to implement them undermine their effectiveness. It needs to be emphasized that food policy is the domain of domestic governments. Good institutional structures can lead to food security attainment.

1.5 Project purpose and research questions

According to the FAO projection, if current trends in tackling food insecurity and hunger continue, 750 million will be hungry by 2005. Ideally, it should have dropped to 650 million by 2005 to halve the number of globally hungry by 2015 (WFS, 1996). This discrepancy questions current approaches, programs and policies targeting hunger.

The 1996 WFS outlined seven policies to improve food security: (1) to ensure and enable a political, social and economic environment designed to reduce poverty, (2) to pursue participatory and sustainable food production and rural development policies, (3) allocate public and private investment to foster human resources, sustainable agricultural systems, rural development in high and low potential areas, (4) to implement, monitor and follow up the plan of action at all levels of cooperation with the international community, (5) to reduce poverty, (6) to distribute food aid in emergency, and (7) to promote trade (WFS, 1996). These are enormous tasks involving many stake holders. This project evaluates the effectiveness of three of these policies namely: poverty reduction, food aid, and trade liberalization in SSA food security. This is premised on WFS acknowledgement that, poverty, food aid, and trade liberalization policy, are key components of food security.

However, SSA has been fighting poverty, received food aid, and practiced trade liberalization for a long time. Thus, an evaluation of such efforts is needed for future improvement. The impacts of poverty reduction, food aid, and trade liberalization should be seen in light of improved food availability and access to be considered effective.

A fair global trade system should benefit all participants. It is also believed that food aid improves food availability and access (Shaw, 2002). To be fair, both are necessary but not sufficient in the food security puzzle. Many socioeconomic, political and cultural factors breed negatively on food access and availability. Ironically, food aid to SSA has been declining over the years (Shaw, 2002) despite increasing demand due to complex natural and human made emergencies and development plans.

The general question for the project is: how effective has poverty reduction, food aid, and liberal trade policy in improving SSA food security? The specific questions to be answered include:

(a) Have poverty reduction, food aid and enhancing trade liberalization reduced hunger and improved food security in SSA?

(b) What policy changes, if any, are necessary for effective performance of these three factors?

1.6 Approach to the issues

The project analyses the questions based on literature review of economic trends in SSA and the implications for poverty, global and SSA food insecurity trends, the features and dynamics of food security, and the nature, motives and dynamics of food aid. The literature on trade liberalization and agricultural trade in particular are reviewed to establish who

benefits most from global trade. I will draw conclusions on the role food aid and trade play in food availability, access, and the cultural implications.

The resources reviewed are books, journals articles by food policy experts, reports from international organizations concerned with food and human development (examples are FAO, WFP, UN, World Bank, IMF, and UNDP, among others), and generally, internet sources. My own experience, having lived in SSA since birth, is essential. From the literature and my experience, I will point out key findings, draw conclusions, and give some recommendation for improvements. I will acknowledge the difficulties encountered during the project process.

1.7 Chapter outlines and way forward

The project has six chapters. Chapter 1 has outlined the purpose of the project and the research questions. It identifies, though briefly, the poor economic performance of SSA region and its implications for food. Chapter 2 discusses the features and dynamics of food security. It also shows the worsening food and hunger problem in SSA and reviews trends in other regions. In addition, the food security conceptual framework is highlighted and its implications shown.

Chapter 3 focuses on SSA economic crisis and its relation to poverty. It investigates the link between poverty and food security, with a special focus on the devastating impacts of HIV/AIDS on food production, income, and the disaggregated gender impact. The overarching argument blames SSA food insecurity to poverty arising from colonial legacy.

Chapter 4 defines food aid and answers the question, why donors give food aid? It also answers the question why countries accept food aid. It investigates the motives and the effectiveness of such aid, and evaluates its contribution in the food security debate. An

assessment of food aid composition, the reliability of supply, and the potential problems are discussed. The future of food aid is also discussed.

Chapter 5 discusses trade liberalization, particularly, agricultural trade. The question "how effective has trade liberalization been for food security in SSA?" is answered. The argument is based on varying global economic, social and political power relations. I will show how the theory and practice of trade liberalization have impacted food security through their impacts on food production, imports, and food prices. I will also investigate why structural adjustment programs (SAP) promised so much but delivered so little in terms of SSA food security and recommend some changes.

In chapter 6, the main findings of the project will be pointed out as the conclusion. I will suggest some food aid and trade liberalization policy recommendations which donors, governments, and households may adopt to improve food security. In regard to poverty, I will propose a comprehensive approach which tackles the socioeconomic, political, and cultural aspects which define poverty. The problems encountered during the project process will also be acknowledged.

Chapter 2

Food Security Features and Dynamics

2.1 Introduction

The term food security evolved over the last decades. According to the World Food Program (WFP), there has been a shift in the level of analysis. In the 1970s, the primary concern was national and international food security. The main concern was the level and reliability of aggregate food supplies. In the 1980s, the focus shifted to individual and household food security, with emphasis on access, vulnerability and risk (WFP, 1998; Hall, 1998). In the 1990s, poverty reduction dominated development discussions. The main argument was premised on the idea that development leads to food security. Despite the fact that this may be true, it is not obvious.

To discuss food insecurity, understanding of the underlying causes is essential. That is, how to physically and economically acquire sustainable food. Also important is how to ensure food safety, quality, and culturally preferred food types. The underlying implications of the food problem and the lack of a universal measure pose policy challenges in addressing food insecurity.

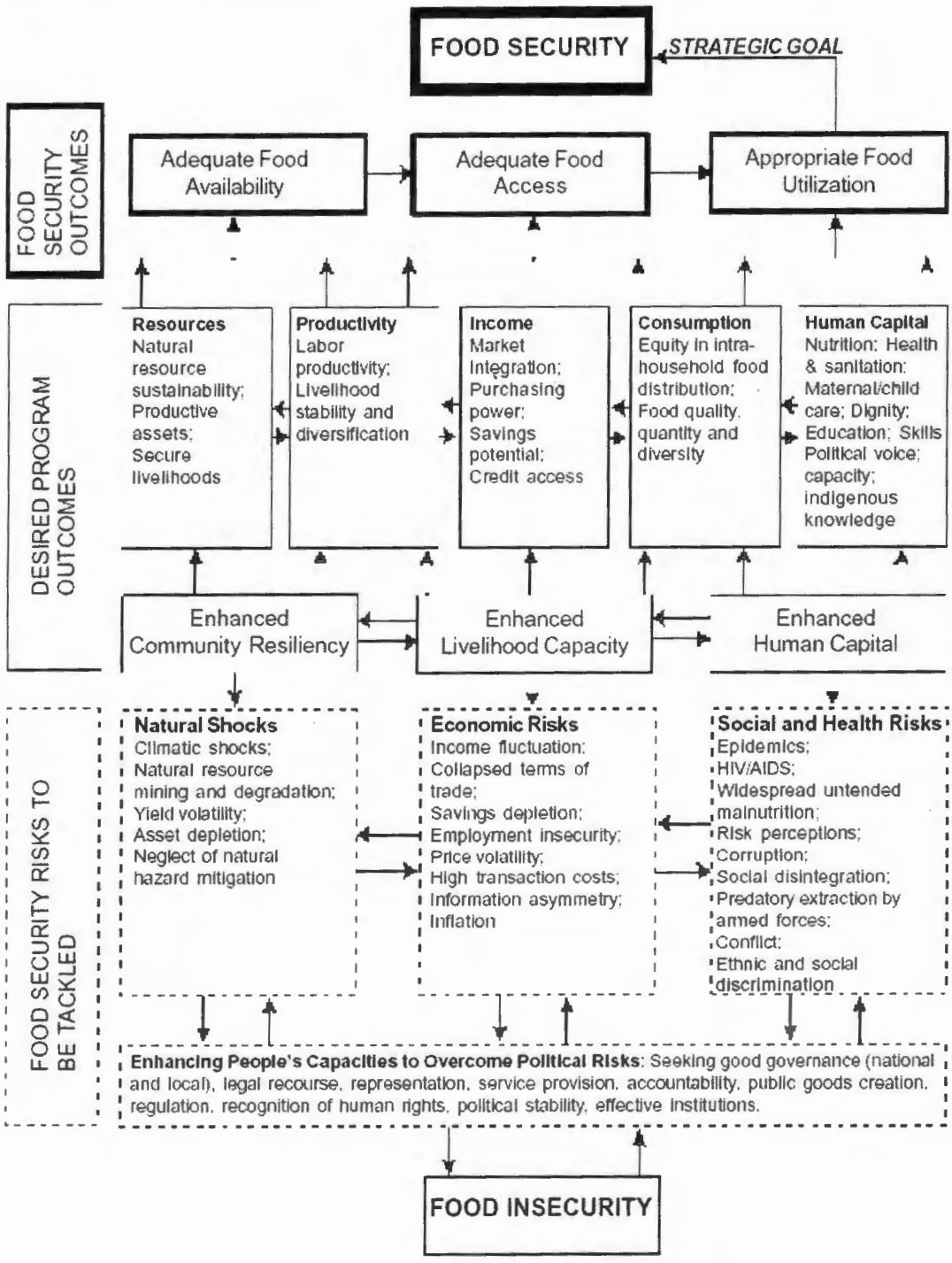
Approaches to food security are many. Amartya Sen advanced the "entitlement" theory from the "food availability decline" (FAD) approach (Sen, 1981). Lately, the gender dimension of food security has become prominent (Rogers, 1997). The roles of governments have become instrumental lately also. The challenge, however, remains how to improve the level of food access and availability, cope with shocks to food security, and ensure food quality, safety, and cultural acceptability in the case of food aid.

2.2 Food security theoretical framework and constraints

Theoretically, food security can be explained in socioeconomic, political, and natural terms as shown in Figure 1. The framework explains the interplay between food insecurity (at the bottom) to the ultimate goal of food security (at the top) and the intervening factors. The three dimensions, food availability, access, and utilization and how they relate to each another are shown. The lower part shows shocks to food security (natural, economic, and social and health shocks) and their mutual interaction. These have their history in colonial legacy and SSA deteriorating economic trend (see sections 3.1 and 3.2). The central and upper parts of the diagram show that available resources, productivity, income, and human capital can avert the shocks. In turn, food availability, access, and utilization, the strategic goal, can be achieved. However, the issue of quality, safety, and cultural acceptability is not explicitly brought out.

Food availability is enhanced by domestic agricultural output, sustainable use of natural resources (water, land and vegetation), and food imports (Paterson, 2002; USAID, 1995, 1996). However, climatic changes, poor distribution methods, and soil fertility depletion affect food production and availability. Food access is determined by income, market availability, and government policy. Food utilization is affected by health and sanitation. Locally, market disruptions during crises and unemployment affect access to food market. Conflicts, loss of coping options (e.g. border closure), and the lack of safety net institutions (USAID, 2003), affect food access and availability too. The inability to mitigate these negative impacts causes food insecurity. However, food availability does not guarantee access (Rieley, Mock, Cogill, and Kenefic, 1999). It is a necessary but not a sufficient condition for food access and utilization at the household level.

Figure 1: A Conceptual Framework for Understanding Food Insecurity



Source: USAID Office of Food for Peace, Occasional Paper No.1, February 2003

2.3 Food security trends in the developing world and SSA

2.3.1 Background

Viewed critically, hunger and poverty affect each other. Thus, to reduce hunger and ensure access to the food, alleviating poverty and inequality is necessary (FAO, 2002). A comprehensive poverty reduction strategy is needed since food security is strongly correlated with income (Pinstrup-Andersen and Pandya-Lorch, 1998). Worldwide, more than 1.3 billion people are absolutely poor, with incomes of a dollar a day or less per person. Two billion are only marginally better off (World Bank, 1997a). Income growth rates, a common development measure, vary considerably in regions. It is known that SSA and Western Asia have struggled with negative growth rates. At present, East Asia is experiencing annual growth rates exceeding 7% (World Bank, 1997b). Thus, its food security has improved dramatically compared to SSA. This shows that high incomes influence food consumption. Low incomes affect productivity, access to productive resources, and food, thus food insecurity. In addition, about 790 million people in the developing world lack access to health services, 1.3 billion to safe water, and 2.5 billion to sanitation services, and 850 million adults are illiterate (UNDP, 1996). It can be argued that the poor, hungry, ill and uneducated can not assure food security for themselves, their households, and their country.

2.3.2 The alarming food insecurity trend in developing countries

According to the FAO, 800 million people globally do not have food security. In Table 1 (p. 17), the trend for food insecure in South Asia has been declining as a percentage of the population since 1969. The same trend is true in East Asia and Middle East and North Africa. In SSA, the absolute numbers of hungry people have been increasing. In Latin America, food insecurity is projected to reduce by 2010 (FAO, 1996a). Globally, more than

20,000 people a day die from the effects of hunger (Madeley, 2000). The majority of deaths are from SSA, South Asia, and Latin America. The disparity in regional food security is explained by varying economic and political approaches. Economically, East Asia has surpassed other regions. SSA has stagnated economically and politically. This has affected food production and acquisition at national and household levels.

In SSA, approximately 200 million people, 28% of the population, are now chronically hungry. This is projected to rise to 264 million by 2010 (FAO, 1996a). Hunger faces 13 million people in Southern Africa (FAO, 2001a). Child hunger, expected to fall in other developing regions, is projected to rise in SSA (Shaw, 2002). Due to hunger, malnutrition affected 52% of SSA children in 2000, of the world's 150 million malnourished children (Shaw, 2002). This makes SSA more desperate than other regions.

One major issue in SSA is the population factor. Since the early 1970s, the gap between population growth and food production has been widening in SSA (World Bank, 1997b, Pinstrup-Andersen and Pandya-Lorch, 1998). This has policy implications. There is need to incorporate population policy in food security approaches to achieve sustainable food availability and access. Despite the urgency, population control has been difficult due to the social and economic values attached to big families. Culturally, big families are seen to offer human resources for household production and security. In SSA, big families are also a source of pride and there is a sense of household competitiveness in family expansion.

Despite attempts, population policies in SSA region seem not to have had the desired food security effect yet. The mismatch between population growth and the available food partly explains the escalating hunger. Matters are made worse by poor domestic policy

initiatives, economic collapse, and mismanagement characterizing most of SSA countries. Effective domestic policies could reduce the current desperation.

Table 1: Food security in developing countries, 1969-71, 1990-92, and 2010.

	Food-Insecure population[a] (millions)			Percentage of regions's population			Percentage of total food-insecure population		
	1969-71	1990-92	2010	1969-71	1990-92	2010	1969-71	1990-92	2010
East Asia	475	268	123	41	16	6	52	32	18
South Asia	238	255	200	33	22	12	26	30	29
Sub-Saharan Africa	**103**	**215**	**264**	**38**	**43**	**30**	**11**	**26**	**39**
Latin America and the Caribbean	53	64	40	19	15	7	6	8	6
Middle East and North Africa	48	37	53	27	12	10	5	4	8
Total	917	839	680	35	21	12	100	100	100

Source: FAO, 1996a

[a] Food-insecure are those whose access to per capita food supplies is less than 1.55 times the basal metabolic rate (BMR).

2.3.3 Reasons for SSA worsening economic performance

SSA has stagnated economically (Todaro, 2000). The stagnation has affected all aspects of human well-being. Three characteristics distinguish SSA from other regions. SSA is vulnerable to changes in the world trade conditions. The primary products which dominate SSA exports fetch low prices and face restrictions in the world markets. Also, poor climatic reduce food production and civil strife disrupts agricultural sector and its labour supply. In turn, food production, imports and food deliveries, and foreign-exchange earnings are severely affected.

The introduction of Structural Adjustment Programs (SAP) and associated agricultural policy changes made SSA vulnerable to disturbances in the global economy (Mkandawire and Soludo, 1999). The emphasis on cash crops production, a colonial legacy, undermined food production (see section 3.1). The reduction of agricultural sector workers by retrenchment and the reduction of agricultural sector funding affected food production. Ultimately, foreign-exchange earnings, the socioeconomic conditions of farmers, and economic growth suffered. The declines in per capita incomes, food production, and industrial production have had profound effect on people's welfare (World Bank, 1994). This in part supports the argument that SSA development appears to be moving in reverse (IIED and World Resources, 1987; Collier and Gunning, 1999; Ayittey, 1998).

2.4 Approaches in food security analysis

In Figure 1, a complex web of factors underlies food security. While addressing one factor is necessary, it may be insufficient for positive change (FCND, 1999). All other contributing factors need to be addressed. This calls for an integrated and comprehensive approach. Because of the complexity, I thought I should examine the famous entitlement theory of Amatya Sen, the food availability decline (FAD) theory, and the gender aspect of the debate.

2.4.1 Food availability decline (FAD) approach and Sen's Entitlement Theory

The physical availability of food in proximity to the household and the reliability of supply promote food security. Food may be produced locally or imported. However, the food sources must be viable and reliable. For this project, this is the basis of the evaluation of trade and food aid.

Before the 1980s, food availability was viewed as the overriding determinant of famine (Edkins, 2002). This was the premise of food availability decline (FAD) theory (Sen, 1981; Sen and Dreze, 1989) which dominated the literature. To FAD, famine is caused by a fall in food supply. However, FAD assumes equal distribution of food. Also, adequate food supply does not mean adequate food for all. It is also argued "famine arises when population growth outstrips food production" (Edkins, 2002, p. 12).

The FAD approach has many weaknesses. It fails to explain hunger outside the realm of food availability decline. FAD also fails to explain why some groups and not others access food, despite a decline in food availability. Because of the weaknesses and his extensive research on famine, Sen argued, the Bengal famine of 1943, the Ethiopian famine of 1973/74, and the Bangladesh famine of 1974 (Sen, 1981) did not result from FAD. He thus explained hunger and famine in terms of entitlements failures.

Sen's entitlement theory views famine and hunger in the lens of peoples' entitlements collapse (food entitlement decline not food availability decline) (Sen, 1981). The view is that total food supply may not translate into individuals and households getting access to available food. To Sen, entitlements include: production-based (people are entitled to food they produce); trade-based (individuals are entitled to food obtained through trading); labour-based (selling labour to buy or exchange with food), and transfer-based entitlements (legal food transfers from governments, friends and relatives).

Thus, while FAD and Sen agree on the production-based food source, Sen furthers the argument with his entitlement theory. I think this is in recognition of the multiple ways to obtain food. It is also a testimony to the multiple ways needed to address the food problem. This shows there is no universally acceptable way to guarantee food security.

While FAD and entitlement theories were designed to explain famine, both also explain food insecurity. Many times, famine and food insecurity are used interchangeably since both are caused by socioeconomic and natural dynamics. The view that hunger and famine are economic disasters not just food crises (Young, 1998) can be overcome by economic empowerment of people. However, there is need to understand peoples' entitlements and the shocks affecting them. For example, in civil wars, food and food aid is accessed by illegal means (misappropriation, theft, or looting) causing entitlement failure for others. Politically, denying access to food may also be used as a suppression mechanism for political opponents as was the case in Zimbabwe in 2002. Food aid may be used to reward political supporters at the expense of hungry citizens. These are classic entitlement failures. While entitlement theory promises much, political and socioeconomic forces affect its viability. At the same time, food sources are different and are affected by different events for different people.

While FAD and entitlements theories offer plausible food availability and access measures, the peculiarity of food insecurity should be understood. The causes and the perception of food security vary across regions and cultures (Edkins, 2000). Thus, policies designed to tackle the food problem may not be universally appropriate and equally beneficial. The sale of labour for food, the transfer of food, and trading may not be viable sources of food for all. The hunting and gathering of food, though it may supplement food access and availability, is not a sure source of food to rely on. The challenge facing FAD and entitlement theories is the equity concerns in food distribution. This problem is contributed by political, socioeconomic and cultural factors involved in determining food access and availability in society.

2.4.2 Integrating gender in food security debate

Gender defines socially assigned roles and behaviors of men and women in society (Johnson-Welch, Alemu, Msaki, Sengendo, Kigutha, and Wolf, 2000). These roles change over time. In SSA, gender affects resource distribution, wealth, work, decision-making and political power, and rights and entitlements in the family (DAW, 1999). Women are significant in food-related activities. They produce up to 80 % of food in SSA (Rogers, 1997) and process, prepare, and use most of their income to buy food (Carr, 1991). Women manage resources, earn income, and take care of household food and nutrition security (Quisumbing and Meinzen-Dick, 2001). Their contribution is a force in food security discussions (FCND, 1999).

The fundamental feature of gender in food security is the differential access to resources (land, food, income) and political influence in society. Today, gender equity in access and distribution of resources dominates development discussions. However, cultural practices, ineffective domestic gender policies, and the male-dominated political and social spheres combine to undermine the discussions. Women are caregivers in families and they ensure children's health services, and a healthy environment (Levin et al, 1999). These are ingredients for good nutrition and food security. Regrettably, SSA women have limited access to resources, to decisions on allocation and use of these resources, and to the derived benefits (Johnson-Welch, 1999).

In SSA, gender-based inequalities if checked could significantly enhance women's contribution to food security (UNFPA, 1999). Unequal access to education and training opportunities combine to undermine women's potential. Gender biases in food consumption, access to credit, land, information, and seeds undermine household food prospects. There is a

need to strengthen women's asset base, and their physical, human, social and financial capital. This is possible with strong legal and institutional framework. The socioeconomic and political exclusion of women need to be addressed and institutional support strengthened. The centrality of women in domestic and economic sphere calls for measures aimed at reducing gender biases predominant in African cultures.

2.4.3 Food security measurement indicators and associated problems

Hunger is a social and a biological problem (FAO/FIVIMS, 2002). This poses a measurement difficulty. Yet, in research, policy processes and programs, there is need to quantify the problem (Maxwell, Levin, Armar-Klemesu, Zakaria and Lamptey, 1999). This can facilitate the targeting of affected people, improve program management, and help monitor and evaluate program outcomes.

Being a broad concept, food security is determined by the interaction of agro-physical, socioeconomic, and biological factors (FAO/FIVIMS, 2002). Thus, there is no single and direct measure acceptable to all (Riely, Mock, Cogill, and Kenefic, 1999). The lack of a 'gold standard' measure facilitated the search for various indicators. Indicators such as consumption (amount of calories consumed), poverty (income), and assets have been used (Chung, Haddad, Ramakrishna, and Riely, 1997; Haddad, Kennedy and Sullivan, 1994; Bouis, 1993) to determine the extent of hunger.

According to Chen et al (1994), food security can also be measured by the anthropometric data. The anthropometric measure (e.g. weight and height) refers to individual nutritional level. However, the measures are affected by age, gender, body size, health status, and level of physical activity. They are not reliable measures. In the *Human Development Reports* (HDR), food production per capita, agricultural production as a percent

of gross domestic product, food imports, and food aid are used to measure national food security. However, the HDR estimates do not reflect real food consumption at the household level. In households, economic conditions, gender, and culture are key determinants to food access and availability. While food production per capita may be high, it may not translate into equity in consumption and balance in food nutrients. At the same time, a country may produce sufficient food, but the sufficiency may be short lived, especially when food items are the major source of household incomes. Also, the utilization of the food may be affected by natural and biological conditions. For example, the effect of the hurricane in Haiti may effect food utilization due to the threat of water borne diseases and poor sanitation.

In my opinion, the amount of calories consumed per capita and household incomes are reliable measures. It is shown in Table 2 (p. 31) that, per capita income is closely related to the amount of calories consumed. In most cases, households with higher incomes rarely go hungry because of the available means to acquire and access food although there may be gender differences in access. Thus, enhancing household incomes is fundamental in determining food access. Despite internal food distribution concerns between genders in the household, the household is a powerful unit to ensure food access for its members.

In general, food security indicators are affected by varying levels of food security. The change in the theory explaining food security requires different indicators to measure. At the international level, global food production may be a good indicator. At the household and individual level, per capita calorie consumption seems to be a better measure of food security.

2.5 Conclusion

The food security focus has shifted from international, national to local and household levels. Food insecurity in SSA is explained by its political history (colonial legacy), socioeconomic, and natural shocks to the food system. Thus, to reduce the food problem, hindrances to food availability and access need to be addressed and the effort sustained.

Food security is a complex issue to achieve. FAD and the entitlement theories have attempted to establish the underlying issues. The gender approach has advanced the food and other resource inequities essential in food security. The multidimensional nature of food security requires an integrated approach (Kennedy and Bouis, 1993; Ostergaard, 1992). There is need to link agricultural production, economic access, and nutritional well-being as a means to improve food security (Haddad, 1999; UNFPA, 1999; FAO, 1998). The guiding principles should be the rights to adequate food, to be free from hunger and have equal access to productive resources (Yambi, 1997).

Ideally, the amount of calories consumed per capita is a good measure. This is easier to determine on a daily basis. Income measures do not consider the inequity in national and household food consumption. Also, change in food security levels and the underlying theory affect the type of indicators used. The assumption of equity in food consumption undermines the value of entitlement and FAD theories. Food policies will be effective if the level and nature of food insecurity is determined. Specific measures should depend on the nature of food insecurity.

Chapter 3

The Theoretical View of Poverty and Food Insecurity Nexus

3.1 The issue and historical context of current SSA problems

Poverty is usually defined by low income or by poor social indicators of development. According to World Bank (WB), absolute poverty defines those who survive on less than a dollar a day (World Bank, 1997b). It is estimated that "between 40-45% of Africa's 730 million people live in absolute poverty, with about 30% in the extremely poor bracket" (ADB/ADF, 2000, p. 24). During the 1980s and 90s, poverty was 40% in SSA (or 220 million) (Todaro, 2000). In SSA, poverty reflects lack of productive assets, technology, information, social services, income, and basic infrastructure (ADB/ADF, 2000). Yet, these are also pre-requisites for socioeconomic development.

In rural SSA, poverty is perceived as a state of deprivation with reference to food, housing, clothing, and poor health. Niang (2002) argues that, poverty in SSA is largely considered a state of food insecurity. The overall economic decline, the global trade inequity, the impact of HIV/AIDS, and poor government policy explain poverty in SSA. It is inarguable that poverty is the heart of SSA problems, including food insecurity.

However, the problem of poverty and food security in SSA has historical roots. The advent of colonialism (from Britain, Germany, France, and Belgium, among others) in Africa had direct influence on the current crisis. Colonialists considered local agriculture primitive and backward. They imposed European form of agriculture. Agriculture was not seen as a source of food and livelihood for local people but for profit to the colonialists (Rodney, 1972). Initially, agriculture was diversified. Colonial rule emphasized cash cropping to support their industries and this undermined food crops (Feldman and Lawrence, 1975). For

example, rice in Gambia was replaced by peanuts. In Ghana, yams and other food stuffs were replaced with cocoa. The introduction of rubber plantations in Liberia and palm oil in Nigeria undermined food crops production. In Uganda, cotton was introduced and in Tanzania, sisal. These crops served colonial industries and were bought cheaply (Lappé and Collins, 1977). Thus, cultural patterns of food production and exchange were destroyed and replaced by commercial purchase of food supplied by colonialists. While imported food was cheap, domestic food production was shattered and remained unsustainable.

The colonial interests were based on exploitation (Rodney, 1972). The mining of gold and other metals benefited colonizers. Mandatory colonial public works programs used forced labour. Locally produced cash crops fetched low prices compared to world market prices (Rodney, 1972). There was also massive land alienation and this became plantations growing export crops. The use of forced labour to work on plantations led to local resentment which later culminated in local nationalists' uprisings like the Mau-Mau rebellion in Kenya and the Maji-Maji uprising in Tanzania. Africans realized that oppression needs to be fought and this legacy still remains. Politically, Africa was being run by colonial governors with the help of puppet local chiefs appointed to further colonial interests. The brutal and coercive methods employed by colonialists and their puppets drew resentment. Also, the division of colonies into labour zones and productive zones further divided the local population (Lappé and Collins, 1977). This division was exploited by colonialists to entrench their rule and thus led to the underdeveloped of labour zones such as Northern Uganda.

The introduction of taxation on land, cattle, and houses forced people to provide cheap labour to earn cash. Agricultural labour earned low wages and poor farmers were forced on to marginal land which was unable to yield food crops. European food export was

encouraged and local food production was discouraged to lessen competition in the food market (Lappé and Collins, 1977). Furthermore, discriminatory taxation was introduced for local food producers and buying from local cash crop producers was also discouraged (Myrdal, 1966). While the colonial strategy guaranteed cheap labour supply and reduced local competition, this legacy still haunts Africa. The replacement of food crops by cash crops, land alienation, and dependence on imported food explain the current hunger in SSA. The current high subsidization of domestic agriculture and export by the European Union countries (see section 5.2 and 5.3) has also undermined SSA agriculture in global trade. Local granaries, initially filled with grains, remained empty when food was sold off to pay colonial taxes (Rodney, 1972). This reduced food for local consumption.

At the same time, social disasters (famine and diseases) affected the local population. The migratory lifestyle of herders (e.g. the Fulani of West Africa and the Karimojong of Uganda) led to overgrazing and spread of diseases such as rinderpest (Rodney, 1972. Also, among the nomadic pastoralists, cattle are considered a gift and consumption is restricted (e.g. Karimojong tribe in Uganda). Pastoralists, with their growing herds, were forced on to marginal areas during land alienation. The colonial restriction on cattle mobility and the creation of colonial frontiers across grazing land disrupted traditional cultures, ways of life, and the means to acquire food.

The colonial policy in Africa subjugated, weakened, and destroyed the fabric of indigenous society. This was done through reorganization of agriculture, the labour force, and through the divide and conquer strategy used to turn the local people against one another. The strategy led to famine and a sharp deterioration in the standards of life of native Africans. The current socioeconomic trends in Africa bear this colonial legacy and cannot be

divorced from this colonial history. Hunger today is a function of institutional, organizational, and policy failures stretching back to colonial times. It is a symptom of a crisis of underdevelopment with the diagnosis based in colonialism and the prescription based in sound and forward looking socioeconomic and political developments.

3.2 Economic trends in sub-Saharan Africa and their implications

SSA poverty has a historical context. The colonial legacy, the effect of poor post-independence policies, and the incorporation of SSA in the global economy contribute to the damage (Macrae, 1998). Severe economic decline also has arisen due to external shocks and domestic economic mismanagement (Rokodi, 1996). While some think there is economic recovery (ADB/ADF, 2000), the impact of the growth on poverty has been largely minimal. This may explain why the United Nations Economic Commission for Africa (UNECA) argues that, for poverty to reduce by half over the next decade in SSA, an average growth rate of 7% per annum (UNECA, 1999) must be attained and sustained. This growth rate has eluded most SSA countries. However, the economic growth must reflect improvements in people's lives and welfare as well.

SSA economic life is dependent on agriculture. Agriculture is vulnerable to adverse external and internal shocks. The vulnerability arises from low international prices for key primary products, unfavorable weather conditions, gross mismanagement of the economy, civil wars and conflicts, and HIV/AIDS pandemic. In other world regions, structural transformation with significant trade and investments growth has been achieved. SSA seems to have been bypassed and marginalized in the process. Its shares of world trade, investment and outputs have declined (Collier, 1997; Todaro, 2000). In effect, national and household economic prosperity are affected.

(i) Foreign direct investment (FDI) and global trade

Trade and investments are crucial for development. According to UNCTAD, "Africa's share of developing countries' foreign direct investment (FDI) has fallen from 11% in the 1986-90 period to 5% during 1991-96, to a mere 3.8% in 1996" (Stein, 1999, p. 3). In global trade, Africa's share fell from around 3% in the 1950s to around 1% in 1995 (Stein, 1999). This has been due to the nature and quality of products Africa exports to the world market. At the same time, Africa's goods are not globally competitive with those in the developed regions. Now, global competition is based on quality and after sale services, not predominantly cost criteria. Africa stands to lose in trade because of this.

(ii) Manufacturing and export sector performance

Africa's contribution to global manufacturing was a mere 0.3% (Stein, 1999) and in 1995, total exports in nominal (not real dollar terms) were 10% below the level of 1980 (ADB, 1997). There has been a drop in exports relative to gross domestic product (GDP), from 31% in 1980 to 28% in 1995 (World Bank, 1997b). In 1970, 92% of Africa's exports consisted of primary products (fuels, minerals and metals, agriculture products and others) and by 1991 there was no change (World Bank, 1997b). This has been due to the poor manufacturing and service sectors. Also, historically, Africa was considered a major source of raw materials for European industries (see section 3.1). In contrast, East Asian and Pacific countries dominate the manufacturing sector with little primary sector exports. This has improved their trade potential, benefits, and the well-being of their people.

(iii) Domestic savings, investments and the effect of conflicts

The SSA gross domestic savings rate fell between 1980 and 1995, from 27% to 16%. Its gross domestic investment rate also fell from 23% to 19% in the same period (Stein,

1999). These declines compare unfavourably with other regions (World Bank, 1997b). SSA population growth has surpassed gross national product (GNP) growth (World Bank, 1989). Thus, GNP per capita growth has declined from 2.9% per annum (1963-70), to 0.1% (1973-80), and to -1.2% (1980-91) (World Bank, 1989; 1997b).

SSA has had its fair share of conflicts and wars. Armed conflicts drain national economies and resources. It leads to a loss of production and employment opportunities. The import of arms drain foreign exchange reserves and competes with development enhancing imports (von Braun et al, 1998). Also, wars and social disorder aggravate hunger and humanitarian efforts. Civil conflicts break the link between individual wealth and access to food. The rich can be as vulnerable as the poor. For example, in the 1980s, the wealth of the Dinka pastoralists in Southern Sudan made them disproportionately vulnerable to cattle raids by government militia and others (Keen, 1994). This undermined their livelihood and they have succumbed to repeated famine and hunger.

Conflicts also lead to income and economic variations. Mozambique, just out of civil war has one of the worlds' lowest GNP per capita levels ($140 US). Peaceful Mauritius has the highest per capita income of $3,870 in SSA (World Bank, 1998). Angola which suffered many years of instability shows a highly negative growth rate (-8.5%) (Trueblood, Shapouri, and Henneberry, 2001). These are shown in Table 2. In Table 2, nine out of 12 countries recorded positive GNP rates over the 1988-97 periods. Peace in Botswana and Mauritius led to over 4% growth during the same period. This shows that the prevalence of peace has a direct impact on economic and income growth exhibited at the national and household levels. Thus, the income earned is used to purchase the basic necessities of life, including food. As is evident in Table 2, high incomes have a positive effect on household food consumption

(through higher calories consumed) and this can translate into higher productivity in human labour.

Conflicts also discourage domestic savings and investments. They are even more discouraging for foreign investments. This probably explains why FDI in Africa is low compared to other world regions. This leads to fewer opportunities for employment and incomes. In the end, low standards of living become inevitable.

Table 2: Per capita incomes, GNP growth, and calorie consumption levels for 12 SSA countries

Country	Per capita GNP, 1997	Annual GNP real per capita GNP growth rate, 1988-97	Average per capita calorie consumption per day, 1995-97	Average share of grains in calorie supplies,1995-97
	Dollars	Percent	Number	Percent
Angola	260	-8.5	1,900	31.4
Botswana	3,310	4.0	2,228	49.4
Lesotho	680	1.4	2,236	75.3
Malawi	210	1.3	2,068	68.4
Mauritius	3,870	4.1	2,923	44.3
Mozambique	140	2.7	1,782	41.5
Namibia	2,110	2.1	2,141	48.9
South Africa	3,210	-.7	2,956	52.9
Swaziland	1,520	1.6	2,479	50.5
Tanzania	210	0.7	2,000	48.7
Zambia	370	-.9	1,958	66.2
Zimbabwe	720	0	2,095	61.5
SADC	1,420	-0.6	2,231	53.2

Source: World Bank, 1998; UNFAO, 1999; and Trueblood, Shapouri, and Henneberry calculations.

(iv) Implications for the economy and people

Economically, SSA lags behind other developing regions Poor economic state has a bearing on human needs, including food. During the 1980s-90s, the daily calories consumption per capita in SSA fell from 2156 to 2096 calories per day. This was 20% below

the average for all developing countries (World Bank, 1989; UNDP, 1997). This shortfall may be explained by the structural adjustment policies of the World Bank and IMF which emphasized cash crop production. Little support was granted to food production sector.

SSA relies heavily on the export of raw and semi-processed products. This sector, besides its uncompetitive nature, does not bring in a lot of foreign exchange. SSA has abundant unskilled labor and raw materials (Yumkella, Roepstorff, Vinanchiarachi, and Hawkins, 1999). The developed regions have skilled and efficient workforce supported by superior technology and resources. The lack of competitiveness for SSA economy in the global economy undermines its efforts to develop. Efforts should be focused on diversification and competitiveness in the global world. This needs a lot of internal and external support. However, with low prices for agricultural products, reduced per capita output, and worsening debt burden, SSA's future remains uncertain. FDI is frustrated by limited access to international markets and low per capita income. Trade is also marginal yet it is critical for socioeconomic and industrial transformation.

SSA is unable to match the current nature of global competition. At present, non-price factors of competition (such as quality, style, design, adaptability to specific markets), and availability of after sale service dominate. In the past, only price and cost criteria dominated global competition. These criteria undermine SSA competitiveness. Thus, SSA miserable development indicators are a testimony that, while integrating world economy has the potential for economic and social growth as in some regions, the growth is not equitable among regions. The dominance of manufacturing sectors in developed economies yields more income than agriculture dominant in SSA. This explains the decline in the 1980s-90s, shown in Table 3. Thus, the future of SSA in the global economy is uncertain.

Table 3: Economic decline in SSA, 1980-1990

Economic Indicator	1980	1990	Change (%)
Per capita output ($)	582	335	-42.5
Per capita consumption	465	279	-40.0
Investment (% of GDP)	20.2	14.2	-29.7
Exports of goods ($ billions)	48.7	31.9	-34.5
Per capita food production ($)	107	94	-12.2
Total external debt ($ billions)	56.2	147	+162
Poverty (% below poverty line)	-	39.6	-

Sources: United Nations Development Program and World Bank, *African Development Indicators* (New York and Washington, D.C: UNDP and World Bank, 1992).
Note: Amounts are expressed in U.S. dollars at 1980 prices.

For people, poor economic performance has an impact on welfare. When the national economy is struggling, household income and welfare is affected. This arises due to lack of employment and other social services. The decline in per capita output (in employment sector and food production) undermines the sustainability of income earning and food acquisition. Low incomes dramatically affect per capita consumption of available goods and services. If domestic exports decline; the resultant shortage in foreign exchange curtails the availability of essential social services (education, health, and food). Economic slowdown is also a breeding ground for civil strife and wars in the developing world. Disgruntled people always want to get rid of non-performing leaders. Wars lead to human suffering, deaths, and further undermine progress so far achieved. The displacement of people, the disruption of production, and the associated social and economic problems are hard to comprehend during wars such as the one in Northern Uganda now. Ultimately, destitution and hopelessness result with far reaching implications across gender, cultures, and geographical regions.

Economic uncertainty frustrates all aspects of life. In the developed world, sound economic growth has improved their socioeconomic development. Despite the significance of economic growth, SSA still ranks last in income per capita worldwide. Its GDP growth is miserable. According to the WB, per capita income of East Asia and Pacific, Europe and

Central Asia, Latin America and the Caribbean, Middle East and North Africa, and South Asia were $ 900, 1,960, 3,560, 2,000, and 450 respectively. For SSA, it was only $470 in 2001 (World Bank, 2003). In terms of GDP per capita (percentage growth), in 2001, the figures were 4.5%, 2.4%, -1.1%, not available, and 2.5% respectively. For SSA, it was only 0.7% (World Bank, 2003). I think this explains why SSA needs to step up to the challenge and turn its economy around. It requires a sustained effort to improve the economy and household incomes. Without significant improvements in growths, the lives of SSA people will continue to be marred by inadequate necessities of life, thus perpetuating the misery of food insecurity.

3.3 The nature and determinants of poverty

(i) Income poverty and food security

Poverty is largely discussed in terms of low income (World Bank, 1990). Many people in SSA live in poverty and there is high income inequality. To others, poverty is multi-dimensional and includes elements of self-esteem and social participation (Hanmer, White, and Pyatt, 1996). In general, poverty is unacceptable and needs to be reduced (Regional Development Banks, World Bank, IMF, 2001) to restore human dignity.

Many believe economic growth is a pre-requisite for poverty reduction (Todaro, 2000). To succeed, economic growth should positively impact the quality of life and promote availability of goods and services. It should also increase household incomes. In the absence of these, growth may be irrelevant as a good measure. However, poverty levels (in income terms) vary among countries and individuals. The variation also affects other food security indicators as shown in Table 4 (page 36).

In the table, 46% in Ethiopia, 50% in Kenya, and 69% in Uganda are below poverty line. Expenditures on food (as a % of household consumption) range from 49%, 38%, and 64% in Ethiopia, Kenya, and Tanzania respectively. This has affected per capita calorie consumption due to the inability to afford sufficient food of high quality. When there is low household income, it leads to tight household budgets for various needs. Low incomes compromise the quantity and quality of food acquired. Ultimately, inadequate nutrition and low production capabilities result. Low GNP per capita also affects the health status of the population due to inaccessible healthcare and food. Poor biological utilization of food may lead to high child and maternal mortality and other illnesses. Thus, low income affects the socioeconomic well-being of poor people.

In some instances, higher poverty (like in Uganda, see Table 4) does not translate in higher food insecurity (e.g. low under 5 years of age underweight or high per capita energy supply). This may be due to government involvement in food supply or reliable food aid supply which improves food stocks and ultimately child consumption. It could also be that health education and services are meeting their objectives of promoting a healthy living.

(ii) Social indicators and food security

Poverty is also measured by social indicators of development. By 1998, 291 million people in SSA were classified as poor (World Bank, 2000a). Ironically, SSA has abundant natural and human resources. However, SSA has low levels of productivity and production technology, high illiteracy and population growth rates, inadequate infrastructure, and low export earnings (Rokodi, 1996). These have combined to undermine socioeconomic development. In recent times, SSA has been applauded for achieving some progress. Despite this, SSA does not compare well with progress in other world regions.

Table 4 Selected poverty and food security indicators for four SSA countries

Indicator	Ethiopia	Kenya	Tanzania	Uganda
Infant mortality rate,[1] 1997 (per 1000 live births)	107	74	85	99
Under 5 mortality rate,[1] 1997 (per 1000 live births)	175	112	136	162
Maternal mortality,[1] 1990-97 (per 100,000 live births)	1400	650	530	550
Under 5 underweight,[1] 1992-97 (moderate and severe)	48%	23%	31%	26%
Per capita energy supply[2] (Kcal/day), 1990-92	1620	1970	2110	2220
Daily per capita calorie supply[2] (% of requirement), 1988-90	73%	89%	95%	93%
Food production index,[1] 1995-97 (1989-91=100)	-	102.9	97.2	107.7
Food expenditure,[2] 1980-85 (% household consumption)	49%	38%	64%	-
GNP per capita,[1] 1998 (US$)	100	330	210	320
Below international poverty line[1] (<$1/PPP/d*; 1985$)	46%	50	-	69%
Human development index[3] (HDI) Rank, 1998	169	137	150	160

*PPP = Purchasing power parity, an estimate of the amount of money required to purchase comparable goods in different countries, usually expressed in US$.

Sources: [1]World Development Report 1999/2000, [2]Bread for the World Institute, 1990; [3]Human Development Report, 1998

The major social concerns include health, education, adequate food, and general welfare. It is documented that infant mortality, life expectancy and primary school enrollment rates figures of SSA are the lowest globally (Regional Development Banks, IMF, WB, 2000). The children who are underweight, malnourished and stunted are 31%, 13% and 44% respectively (Poku, 2002) of all SSA children. These are direct effects of lack of food availability, access, and consumption. This is aggravated by lack of income to buy food and low household food production. The lack of adequate food coupled with disease pandemics

undermine life expectancy (averaging 50 years or lower in SSA) (Poku, 2002). The net primary school enrollment rate is 60% of all school-going-age children (Poku, 2002). Thus, a good number of children do not attend school and this has future implications for the economy and society. To worsen matters, priority for education is given to boys at the expense of girls' education. This is embedded in the cultural belief that there are more returns from boys' than girls' education. This is contrary to my belief that, educating a girl has a trickle down effect to their future families and to the nation. The role of women in food processes is evidence of this.

Also in SSA, there is endemic lack of basic services like healthcare and social infrastructure. Due to economic hardships, poor people are unable to pay for and/or access health care, food, and education. This has led to hunger, illiteracy, and vulnerability of the population. In the household, income is a function of literacy, good health, and high productivity. In reality, SSA is trapped in the poor provision of social services essential to improve income and welfare. It is known that an unhealthy population is unable to be productive. Also, uneducated people have little impact to national economy and to themselves and their family.

As Table 2 shows, high income and per capita consumption are related. Higher incomes in Mauritius and South Africa show higher calorie consumption of 2,923 and 2,956, respectively. This may explain the high economic performance and well-being of these countries. In lower income countries like Angola, Mozambique, and Zambia, calories consumption are 1,900, 1,782, and 1,958, respectively. These fall below the FAO recommended rate of 2,200 calories/day. Low consumption affects productivity, well-being, and economic growth. However, while income affects food consumption, the inequity in

food distribution and access remains a problem. Gender inequity in household food consumption and access exist. My experience bears testimony to this. In my culture, men, considered household providers, are given priority when serving food. There is always disparity in shares of food consumed in favour of men. Women and girls take the back stage in household food access. The inequity in food access promotes food insecurity for females.

In general, poverty perpetuates hunger, prevents people from realizing their potential, makes people more vulnerable to diseases, and reduces ability to work and provide for themselves and dependants. This explains the vicious SSA hunger problem and undermines socioeconomic development which has eluded the region. Income poverty and social indicators of poverty have profound effects in food access, production, and availability, the tenets of food security.

3.4 The devastation of HIV/AIDS on food security and poverty in SSA

Realistically, HIV/AIDS is not only a health problem. It has social, economic, and institutional implications. The high level of poverty has influenced the rate of HIV/AIDS in SSA. By any measure and at all levels, the magnitude and impact of HIV/AIDS in SSA is staggering (see Table 5, page 39). Globally, SSA's share of HIV/AIDS is higher than other regions (as shown in Appendix A). This has affected food security. The disease affects the demographic structure and mortality profiles of households. HIV/AIDS affects nutrition, agricultural production, and rural societies, the main source of food. It undermines food availability, stability, and access. Poor households suffer the most due to lack of or inadequate coping strategies.

(i) The disproportionate gender and regional impact and implications of HIV/AIDS

Globally, about 70% of HIV/AIDS infections are located in Africa, where an estimated 28.5 million people live with the disease (UNAIDS, 2002). It is the major cause of deaths in SSA (SADC FANR, 2003). The adult prevalence rate is 24.6% for countries in Table 5 (UNAIDS, 2002). Ten million young people (aged 15-24) and about 3 million children under 15 years are living with the disease. This casts doubt on the future of food security considering that the most productive age group is being swept away.

HIV/AIDS has been described as a "...social calamity on a scale not witnessed before in Africa" (de Waal and Tumushabe, 2003, p. 2). Infections are highest among adults aged 20-40 years, nearly three quarters of all cases (UNAIDS, 2002). This affects household labour supply, incomes and food production sectors.

Table 5: HIV/AIDS prevalence in selected Southern African countries

	Estimated number of people living with HIV/AIDS in 2001			New AIDS orphans	New AIDS deaths
	Total	Adults	Adult rate	2001	2001
Zimbabwe	2,3000,000	2,000,000	33.7%	780,000	200,000
Zambia	1,200,000	1,000,000	21.5%	670,000	120,000
Mozambique	1,100,000	1,000,000	13.0%	420,000	60,000
Malawi	850,000	780,000	15.0%	470,000	80,000
Lesotho	360,000	330,000	31.0%	73,000	25,000
Swaziland	170,000	150,000	33.4%	35,000	12,000
TOTAL	5,980,000	5,260,000	24.6%	2,448,000	497,000

Source: UNAIDS, 2002

HIV/AIDS has distinct gender impacts. Women, 15-30 years, account for a greater number of AIDS cases than men (UNAIDS, 2002). Women, 15-19 years, account for more than four times the number of AIDS cases as men (UNAIDS, 2002). Thus, women accounts

for the majority of all cases and deaths. In societies where men marry many wives, the spread of AIDS tends to be disproportionate against women. Men, with the desire to locate employment in cities/towns, tend to spread the disease to the spouses. This creates a huge dent in food related activities for which women are very instrumental. Despite this, HIV/AIDS infection varies across countries. Cultural practices and household economic stress facilitate HIV/AIDS infection rates and spread.

(ii) Effects of HIV/AIDS on agricultural sector and rural economies

(a) Effect on agricultural labour

Agriculture is the backbone of SSA economy and food. However, the toll of HIV/AIDS on agricultural labour is massive. In the 27 most affected SSA countries, the FAO estimates that, 7 million agricultural workers have died since 1985 and 16 million more are likely to die in the next two decades (FAO, 2001c). This will reduce the labour force in the agricultural sector by 10-16% in the next decade (FAO, 2001c). The 2020 projected loss is heart-breaking (as shown in Appendix B). At this rate, the agricultural sector should brace for a prolonged devastation. It is only the cure of the disease that will give hope.

(b) Effect on productivity and economic growth

HIV/AIDS affects productive time and output, workers' productivity, and economic growth. In Ethiopia, a study showed that HIV/AIDS affected households spent 50-66% less time on agriculture than unaffected households. In Tanzania, women spent 60% less time on agricultural activities because their husbands were ill (FAO, 2001c). By another estimate, about 2 person-years of labour are lost by the time a person dies of AIDS (FAO, 2001c). This results from HIV/AIDS weakening ability and the time others spend giving care. This

undermines the determinants of economic growth: physical, human and social capital, yet, they are very important in growth and development.

The role women play in SSA food security is enormous. They spend 50-80% of their time producing and preparing food, in nurturing activities, and income generation (Rogers, 1997). But, women are disproportionately affected by the scourge. To me, the pandemic has hit directly the engine of household production and related activities. While HIV/AIDS affected households may cope (de Wall, 2002; UNAIDS, 1999), I want to argue that, the affected households never fully cope and get to some semblance of normal life. The long term downward trend in food security is hard to escape when the pandemic hits the household.

3.5 Conclusion

Poverty is the center of SSA food insecurity. External and internal dynamics explain the poverty. Historically, the colonial exploitation of SSA natural, human, and economic resources, the poor post-independence development policies, and the integration of SSA in the global economy explain the worsening SSA economic performance, thus explaining poverty. The over reliance on agriculture, the effect of natural and external shocks, and HIV/AIDS pandemic further complicates SSA misery.

While Sen and the entitlement approach envisage food security, poverty hinders this vision of food acquisition in SSA. Poverty frustrates trade, production, and transfers of food. At the same time, the social dimension of poverty affects food production, access, and acceptability. In income terms, low incomes reduce the amount of food bought and consumed. It also reduces the agricultural acreage under food crop cultivation. This undermines food production, transfers, and future food consumption.

Socially, the HIV/AIDS pandemic has compounded matters. Human labour, food production, and transfers are severely affected. The effect of HIV/AIDS is systemic (Haddad and Gillespie, 2001). Despite the HIV/AIDS, high population growth, land degradation, poor weather, and technology (Hess & Ross, 1997) affect the agricultural sector and food prospects in particular. Thus, domestic food self-sufficiency and income earning are severely undermined. This reduces household incomes and therefore affecting the well-being of people.

Chapter 4

International Food Aid and Food Security in SSA

4.1 Introduction and brief history of food aid

Food aid is "commodity aid that is used either to support food assistance action or to fund development more generally" (ODI, 2000, p. 2). It can be in the form of balance of payments support, substitute for commercial imports, and budgetary support through counterpart funds generated from sales revenue (ODI, 2000). By nature, food aid is a flexible resource. Food aid programs provide free food commodities or offer concessional terms on food purchase.

According to Barrett (2000), the modern era of food aid started when the United States Congress passed the Agricultural Trade Development and Assistance Act (Public Law 83-480) in July 1954. It is since known as PL 480 or Food for Peace program. Initially, food aid was viewed as a humanitarian program where the United States (U.S.) shared its food surplus with poor and food deficit countries. Today, the commercial vision and objectives dominate food aid. The surplus disposal theory has declined in importance. The current debate rotates between promotion of trade and humanitarian concerns.

Food aid is motivated by many reasons. While the desire to promote exports and the humanitarian quest to alleviate hunger dominate, donors also want to score foreign policy gains (Reutlinger, 1999). However, the food aid instrument, the policies governing it and the motives are not static. This affects the reliability and sustainability of food aid. The global demand for food is ever rising. The donor financial resources get tighter with competing domestic and foreign priorities. Also, by nature, food aid provides short term relief and satisfaction, yet, SSA experiences chronic food problems. Thus, to design effective food aid

programs, there has to be a link between planned aid programs and the likely impacts on food availability, access, and utilization. The cultural acceptability and safety of food aid must also be considered. It has to be noted that food aid can impact on incomes, agricultural productivity, and food availability at household level. Also, it can frustrate household food production through over dependence on food aid. Viewed this way, the role of food aid programs in food security could be enhanced and future shortcomings averted.

Food aid is affected by changes in donor and recipient countries. There are donor budget constraints and competing demands. Human and natural emergencies keep occurring and require more food assistance. These have dictated changes in food aid levels. Also, donors keep advocating for the multi-purpose use of food aid (Clay and Stokke, 2000; Christensen, 2000). The emphasis now is in development food aid. This paradigm shift in the use of food aid has left a lot of discretion in the use of food aid by recipients. As an instrument for food security, this casts doubt on food aid effectiveness.

Despite sufficient global food production, one in six persons in the developing world lacks access to sufficient food for good health (Barrett and Heisey, 2002). Many think, food aid can fill this food gap. The food gap exists when the supply of food does not equal need (MacGillivray and Strachan, 1998). The gap can be fulfilled when everyone is able to acquire enough or when there is enough food to meet the new demand. According to Rosen and Shapouri (2001), the food gap in SSA is projected to increase. In 2000, the gap (including other food items and cereals) was estimated to be 15.3 million tons and is projected to rise to 22.5 million tons by 2010. At the same time, the food consumption ratio is expected to fall in the next decade from 81% of the nutritional requirement in SSA (Rosen and Shapouri, 2001). The food gap requires more access and availability of food to bridge.

Despite this necessity, cereals, the major food import to SSA has not been sufficient to supplement local cereal production. From 1995 to 2003, actual cereal requirement in SSA has been increasing (as shown in Table 6). Also, the cereal gap needed to meet the shortfall has averaged 2,663,000 tonnes a year since 1995. This cereal gap can be bridged if sufficient cereal food aid is given by donors. However, while cereal production and imports have been increasing, it seems the rate of increase has not matched the increase in demand due to population growth and shocks to food production. These could be affecting the fluctuations in the cereal gap as exhibited in Figure 2.

Table 6: Cereal production, import requirements and cereal gap in sub-Saharan Africa, 1995-2003 (in thousands tonnes)

Year	Cereal production	Required cereal imports	Actual cereal requirements	Anticipated cereal imports	Cereal gap
1995	75,860	11,959	87,819	8,296	3,663
1996	89,452	10,739	100,191	8,883	1,856
1997	80,986	13,810	94,796	11,485	2,325
1998	85,663	14,856	100,519	13,286	1,570
1999	84,211	16,265	100,476	13,738	2,527
2000	82,997	17,776	100,773	14,933	2,843
2001	83,901	15,921	99,822	14,197	1,724
2002	83,128	24,318	107,446	19,757	4,561
2003	92,685	21,673	114,358	18,767	2,906

Source: Food and Agriculture Organization (FAO): Food supply situation and food prospects in SSA. FAO Global Information and Early Warning Systems on food and agriculture (GIEWS), 1995-2004. Accessed on November 10, 2004, from Africa Report at http://www.fao.org/giews/english/af/index.htm

The existence of cereal food gap and other food items against increasing demand poses a huge challenge to donors in their quest to reduce this gap.

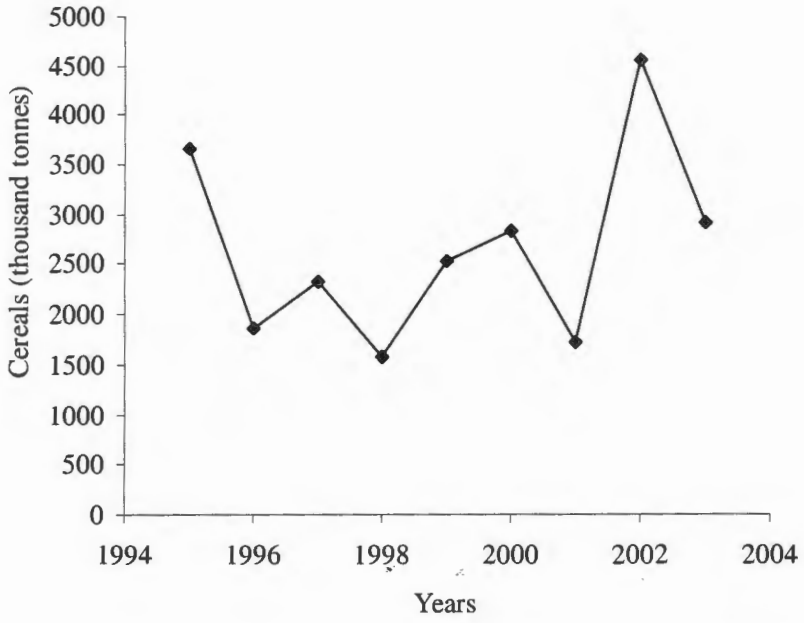


Figure 2. Cereal Gap Trend for sub-Saharan Africa 1995-2003

It is evident that the cereal gap above has a pattern with does not clearly match the anticipated 2010 food security level in SSA (see Table 1). While food insecurity is worsening in SSA, the food response needed to reduce the food gap must come from various sources. In this case, I have selected the grains component of the food gap. It could be that other food items comprise a good proportion of the overall food gap in SSA. For example, it is found that roots, tubers, and plantains account for some 40% of total food supplies (in terms of calories) for about half of the population of SSA (FAO, 1996a) where overall food supplies are very low. At the same time, imported grains to SSA only contribute 6.5% of calories consumption in SSA (Ingco, Mitchell, and McCalla, 1996). Domestic grain production seems to contribute a lot in SSA calories consumption. Also, other food supplies (e.g. fisheries have been declining (FAO, 1996a) and yet, the population of SSA is ever increasing at 3.2% per year (FAO, 1996a).

The 2010 projections are based on the fact that population growth varies among regions but highest in SSA (FAO, 1996a). Also, it assumed that food production, demand, and trade will be lower up to 2010. It also assumed a slight growth in per capita income in SSA (FAO, 1996a) and this affects acquisition of food. While the food gap is expressed at the SSA level, this masks food shortages at the national, household, and individual levels. At the same time, the number of hungry people occurs disproportionately in some countries and even within a country. Thus, while the data for other food types are complex and difficult to discern by region, the mismatch between the food gap and the 2010 projections may be explained by the availability of other food types other than grains. It can also explained by the persistent population growth and the low levels of food production in SSA.

4.2 The opposing arguments in the food aid debate

Food security is the umbrella policy goal for most food aid programs (WFS, 1996). However, food aid program objectives and characteristics differ. Critics of food aid condemn the political and economic strings attached by donors. They argue food aid has "disincentives to local agricultural production, disrupts trade, and increases dependency on imported food aid commodities" (Shaw, 2002, p. 572; Smith and Ballanger, 1989). No wonder, Paterson (1999) bluntly said food aid is the biggest 'sin' in Africa. My experience in Uganda supports this assertion. In early 1980s, when significant amount of food aid was given, people developed a dependency attitude. When food aid support dwindled during the late 1980s, this gap created uncertainty and difficulty in adjustments to life without food aid. Thus, food aid should not be used as a first resort.

Food aid is sometimes equated to food security. It helps in emergency and humanitarian crises and is also a 'pre-investment for development' resource (Shaw, 2002).

As a development resource, the use of food aid for food security may be abused. It may be used for purposes other than food. The significance of food aid in emergency situation is unquestionable. The 40 million refugees and internally displaced people in the developing world, and 15 million in Africa (IFRC, 1996), need food to survive. The social and economic cost of war and natural disasters need to be averted. The high infant and child mortality (10 times higher) among displaced populations in Africa, account for a fifth of the total child deaths (Toole and Waldeman, 1990). These situations need an expansion in international food aid system.

However, it is questionable whether food aid program can sustain food availability and access. This is also occurring at a time when culture is playing a decisive role in food preference. At the same time, there is a growing awareness about food safety to the detriment of genetically modified food aid. Thus, the effectiveness of food aid should be evaluated against the purpose for food aid, its effect on food availability, and the targeted group, not the amount of food aid donated.

4.3 Food aid programs, methods of disbursements, and associated problems

According to Reutlinger (1999, p. 7), "food aid is the product of an era in which governments in both, the industrialized and the developing countries, were expected to intervene in the production and marketing of food in a big way." He further argues that, "food aid transferred large quantities of resources to the poorest nations and people inflicted with poverty and hunger" (p. 7). Thus, as a resource transfer, food aid is conveyed in kind and/or monetized (Shaw, 2002). To date, food aid serves many donor purposes. The flexibility in the use of food aid has also been its weakness. The flexibility has led to

manipulation and the promotion of self seeking behaviors by individuals and governments. This frustrates food security efforts.

Three methods of giving food aid have been identified (Shaw, 2002; Clark, 2001). Each method has its objective and purpose. The reason to determine the food security impact of food aid needs to be viewed in this perspective.

(a) Program food aid: these are bilateral resource transfers in the form of food commodities used as balance of payments support or to fund government programs through monetization (the local sale of the food commodities).

(b) Project food aid: multilateral or bilateral transfers of food commodities distributed directly to target food insecure people (e.g. food-for-work) and/or monetized to fund other development initiatives (Shaw, 2002, p. 575).

(c) Emergency food aid: is supplied for direct distribution in times of acute food shortage due to man-made or natural disasters (Shaw, 2002).

From the foregoing, it is clear that only emergency food programs provide direct food supply. Also, project aid (e.g. food-for-work) provides limited direct food assistance (Shaw, 2002). In theory however, food aid distorts commercial markets and also affects local production (Shaw, 2002). Food aid also promotes development projects. It has been used for direct infrastructure development, such as roads construction, bridges, and dams, which may eventually reduce poverty. Thus, to balance the negative and positive effects with the need for food availability, access, and utilization is a difficult task. The negative effects of food aid are not desirable and should be guarded against. However, the positive effects should be the focus of the debate and promoted.

SSA food needs are ever growing. Besides low domestic food production, food aid supplies are unable to match the food gap created by increasing demand. Donor fatigue and budget driven donations are unlikely to ensure the sustainability of food aid. Also, food insecurity in SSA is chronic, yet, food aid gives temporary relief. At the same time, access to food aid depends on the type of food aid. Food aid, used as a balance of payments support and local currency for projects, may not benefit vulnerable groups like women, the disabled, and children. The distribution of development projects may be influenced by politics or corruption. While emergency food aid faces distributional problems caused by political and economic considerations, food-for-work may face gender issues. For example, if food is meant for road or bridge construction (manual jobs), it is probable that only men may benefit. Food aid, used as a development tool and for domestic policy change, may lead to institutional abuse. The resultant and cyclical nature of dependency, mismanagement and poor food policies undermine food security.

Food aid does not solve the problem of food access and availability on a long term basis. The issue of cultural acceptability is another problem. Globally, food is culturally determined. Thus, cultural constraints may undermine the availability and access of food aid. For example, in my society, the availability of cassava, sweet potatoes, and beans (the dominant staple foods) means there is little or no hunger. Thus, food aid without the basic food items may mean very little in terms of cultural preference. These, coupled with the inequality and distribution problems, are a huge challenge for food aid.

4.4 Multilateral and bilateral food aid and its future

Globally, food aid is thought to alleviate human suffering and stress. Being a frequent and common form of intervention, food aid management and the policy environment need

careful examination. National and multilateral agencies provide food aid (Barrett and Heisey, 2002). The motivations and modalities of the two vary considerably. Bilaterally, the U.S. is the largest donor, accounting for more than half of all donor food aid in the world (Barrett and Heisey, 2002). In recent years, the demand for food aid in SSA depended on the recipients' domestic food production and commercial imports (Diven, 2001; Barrett, 1998). However, the supply of food aid by major donors has been largely stagnant or declining (as shown in Appendix C). The decline is not due to the reduced need for food aid. SSA faces complex natural and human emergencies which require more aid. I think budget constraints in donor accounts explain the decline. Thus, an understanding of the food aid policy environment is crucial for possible explanations.

Multilaterally, the World Food Program (WFP), formed in 1961, is the world's dominant food aid organization. The WFP handles more than 90% of multilateral food aid allocated and about 30% of all food aid worldwide (WFP, 2000). The WFP is mandated to use food aid to meet refugee and emergency food needs, and promote world food security. To some, the WFP is better positioned to tackle recipients' needs than bilateral food aid programs (Ruttan, 1993; Diven, 2001). This arises due to the donor political, fiscal, domestic farm policy and trade promotion concerns characterizing bilateral food aid. These undermine sustainability and reliability of bilateral food aid.

The WFP has creative modalities in food aid procurement and distribution. The triangular transaction (e.g. buying food from one region/country and supplying it to another region/country) and local food purchases bring income to poor countries/regions (Gabbert and Weikard, 2000). The income could be used for domestic development programs. This, coupled with good domestic food policy, could enhance SSA food prospects. Unfortunately,

the future of food aid hinges on the policy environment in donor countries. SSA has no control over this environment. Thus, to rely on a resource which you do not have control over is disastrous. This makes food aid an unreliable and ineffective means to resolve SSA hunger crisis.

4.5 Food aid trends in SSA and implication

Food aid flows to SSA has been fluctuating. Since the 1970s, food aid to SSA progressively increased and peaked in early 1990s. This was because donor domestic resources were not so constrained yet and the surplus disposal theory was still strong. While emergency cereal food aid need escalated from the mid-1990s to date due to complex emergencies, there has been a decline in supply (Shaw, 2002). There has also been a decline in program food aid, with an increase in project food aid (Shaw, 2002). In 2001, "66% of food aid deliveries to SSA consisted of emergency food, 25% project food aid, and only 9% program food aid" (Shaw, 2002, p. 575).

Food insecurity in SSA is chronic, aggravated by natural and human emergencies, and conflicts (like in Somalia, Rwanda, Congo (DRC), Liberia, Sierra Leone, Sudan and Uganda). In response, more food aid is needed. While development food aid has declined, food prospects have also suffered in the process. The Overseas Development Institute (ODI) noted that, "food aid has, with surprising rapidity, become a marginal and uncertain component of aid globally – only 3-4% of ODA in 1995, compared with 22% in 1965 and 11% in 1985" (ODI, 2000, p. 2). This reduction does not reflect a reduced need for assistance (Christensen, 2000). In contrast, the mis-match between food aid resources and food needs (USDA, Economic Research Service, 1998) does not reflect the need estimated to increase

by 50% over the next decade (Christensen, 2000). This scenario undermines efforts to improve food availability and access.

The share of food aid in the total ODA declined from about 25% in the 1950s and 1960s to 4% in recent years (Reutlinger, 1999). In the 1970s, food aid donations "stagnated or declined, while its annual volume narrowly fluctuated" (Reutlinger, 1999, p. 9) (as shown in Appendix C). This reflected the FAO's theory of surplus disposal whose concern was the negative effect of food aid on the agricultural sectors of the recipient countries. In addition, there has been a fall in value of food aid in constant dollars to about a half compared to early years (Reutlinger, 1999). This reduction questions and undermines the effectiveness and reliability of food aid as a food security and development tool.

The changing donor food aid policy environment has had a direct impact on food aid availability and access. Cultural acceptability has also frustrated food aid. Despite the donor effort, I am arguing that, for the food aid instrument to be effective, not only should the rising needs (perpetuated by complex human and natural disasters) be met, but also food aid must have long term and sustainable change in the life of SSA people. In fact, the ultimate aim of food aid should be reducing poverty since most social evils arise from it. The declining food aid supply undermines its credibility and effectiveness as a food security measure. While project food aid may not directly improve food availability and access (unless targeted), it can indirectly achieve this if it is reoriented towards improving household incomes. This can be achieved if the food aid objective is clear and forward looking in this direction.

4.6 Food aid commodities, aid for food debate, and the changing policy environment

Food aid is unreliable. This is further complicated by SSA ever increasing population, poor agricultural policies, and economic neglect. Food aid and imports will be needed for

sometime to come to bridge the food gap. Whether this will be done is another matter. However, this can be achieved with sustained food aid supported by clear objectives.

(i) Food aid commodities, aid for food, and impacts

The world's largest international food aid donors include the US, the European Union (EU), Australia, Canada, and Japan, among others (Shaw, 2002). For SSA, cereals make up the bulk of all food aid receipts. The cereals include: wheat and wheat flour, sorghum, barley, oats (coarse grains), and rice (Shaw, 2002). Other non-cereals include: vegetable oil and fats, dairy products, and meat and fish. In SSA, the major recipients of food aid are Ethiopia, Angola, Mozambique, and Sudan. In 2001, they received almost half of the total cereal food aid to SSA (Shaw, 2002). Despite this skewed food aid distribution, food insecurity problem is universally spread in SSA. It is caused by similar conditions, and needs long term measures.

According to the International Food Policy Research Institute (IFPRI), it is estimated that "cereal import demands will almost double by 2020 to192 million tons" (Paggi and Rosson, 2000, p. 3). The food problem in SSA and South Asia will be the major cause for the increase. However, while the amount of food aid needed in SSA is not precisely known, the reliability of its supply is doubtful. In emergency however, it is easier to gauge the amount of food aid needed (ODI, 2000). But, not all food aid is meant for emergency needs. The amount of project and program food aid needs to be determined by local and/or national needs. Arbitrary allocation undermines effectiveness. Ironically, food aid only gives mostly short-term relief and satisfaction. Thus, food aid policies and programs should incorporate long term objectives geared towards economic empowerment of poor people. This should not be at the expense of emergency needs.

In some instances, donors give aid for the purchase of food to feed hungry people. The assumption is that recipient governments will fulfill their obligations. While feeding hungry people is essential, government priorities may be different from the hunger issue. It is not uncommon to find military budgets of some SSA governments surpassing social sectors budgets (like educations, health, and welfare), such as the 2003 Uganda budget. At times, corruption and bureaucracy frustrate the hope and confidence which hungry people could have had in food aid. The frustration deepens when hunger concerns take a back seat in government prioritization. These are common despite essential nature of food to humans.

(ii) The changing food aid policy environment and its effects

Initially, food aid was surplus driven. Surplus food from donor countries was given as aid. With time, food aid began to be budget driven and foreign policy gains became very dominant. These affected the policy decisions of donors. The new policy environment and the changing institutional dynamics and guidelines impacted food aid (Christensen, 2000). These have undermined the sustainability and reliability of food aid (Paggi and Rosson, 2002). At the same time, there is a lack of donor guarantees, yet, food aid demand keeps rising. Also, unchecked donations of food aid may negatively affect local food production and food markets. This encourages dependence on donor food and discourages local food sources. This particularly occurs when the hungry look to food aid as a first resort.

In the 1980s and early 1990s, SSA was the major recipient of food aid. Its cereals amount of food aid reached about six million tons, about 39% of global cereal aid supplies (Shaw, 2002). In 1997, 2.3 million tons was given, 35% of global shipments (Shaw, 2002). Amidst the food aid decline, food production in SSA is still short of the food demand (Paggi

and Rosson, 2002). The examination of the food aid policy and its institutional environment explains the uncertainty in food aid and its effectiveness.

(a) Surplus and budget driven approaches

From the 1950s-1980s, surplus disposal determined food aid donation. However, this has declined in importance. Donor domestic resource constraints, coupled with competing domestic needs, have increasingly made food aid budget-driven rather than surplus-driven. This has caused large physical declines in supply (Christensen, 2000). In the 1990s, the U.S. cut its food aid funding and other foreign assistance due to resource limitation. The cut forced a trade-off between development and emergency assistance. Priority has been given to emergency food aid. The limited budgetary support in the donor countries, coupled with competing domestic needs undermine food aid reliability.

It is worth noting that food aid supply is affected by market surpluses and food prices. If food production falls and prices rise in donor countries, food aid supply shrinks (Rosen, 1989). The question of reliability and sustainability comes in handy here. This undermines food access and availability. Also, food aid is a targeted resource and benefits only targeted people even when the whole country/region is food insecure.

(b) The changing roles of governments and donors in food aid deliveries

Bilateral and multilateral food aid channels have different modalities and motivations. While domestic agricultural interests and foreign policy objectives dominate bilateral food donations, multilateral food aid focuses on humanitarian assistance (Ruttan, 1993; Diven, 2001). Since the World Food Conference of 1974, the WFP has increasingly handled most of the world food aid flows. In 2000, multilateral food aid flows (of which WFP comprises 99%) accounted for 38% of global deliveries, 34% by bilateral channels, and 28% by private

voluntary organizations (PVO) (WFP, 2001). The rise in humanitarian needs and the decline in the surplus disposal theory have strengthened the role of WFP. The shift in the funding modality (direct cash flows and less in-kind support) gives the WFP flexibility. The WFP also has no diplomatic agenda to execute, farm surpluses to dispose, and exporters to promote. The WFP also uses innovative ways such as local food purchases and triangular purchases. This increases income to the country or region. For example, in 2000, 11% of food aid was purchased in developing countries (WFP, 2001). Thus, as Charlton (1992, p. 46) notes, "although the WFP has frequently not received much publicity, it has emerged as the second largest source (globally) of development funds after the World Bank." However, uncontrolled local purchases of food may cause food shortages itself. There needs to be domestic policy in this regard lest hunger gets worse. Also, incomes earned may not be used for food.

It is imperative to argue that, while bilateral food aid is conditioned by donor political, fiscal, and trade promotion concerns, the WFP can avoid this since it has no hidden agenda. It also has innovative methods which may yield mutual benefits.

(c) Evaluating food aid and aid for food (aid for alleviation of hunger and poverty)

For long, arguments have focused on whether in-kind food aid or aid for food is the best strategy. Initially, food aid was seen as a humanitarian issue. Now, it has become a development issue (Reutlinger, 1999). The shift has overshadowed the humanitarian perception. This divided opinion about the role food aid and aid for food needs an evaluation.

Conventionally, hungry people need food and not money to reduce hunger. This is the perception of in-kind food aid advocates. To others, hungry people need money to buy their own food and reduce poverty. This is the view of aid for food advocates. The two arguments

have to be viewed in context. While hungry people need food, it is inappropriate to allocate them food aid which might go against cultural food preference. At the same time, it is hard to be sure that when money is given to the poor and hungry people, it will be used to buy food. Also, food may not be locally available for purchase. This is further complicated by the fact that, the nature and intensity of food insecurity vary. Because of this, the approach to food security should consider the nature of food insecurity, cultural concerns, and the choice of intervention available. Most importantly, intervention should depend on the needs of individuals and society whose food insecurity is being tackled.

(d) The genetically modified (GM) food debate and the SSA hunger problem

The core argument here regards food utilization, safety, and cultural acceptability of food aid. By the end of last century, the development of genetically modified (GM) crops through biotechnology took centre stage in global food crisis (Serageldin and Persley, 2000). Proponents argue biotechnology will alleviate hunger in the developing world (Leisinger, 2000). They portray GM crops and food as a high tech approach that will not only help feed the world's 840 million hungry (McCalla, 1998), but also ease poverty of over 1.3 billion who live on less than $ 1 a day (World Bank, 1997b). However, current debates focus on the human and environmental safety of GM food. The US, the chief architect and promoter of GM food, has had confrontations with environmental groups and the European Union (EU). While the US argument is based on saving lives, the EU and the environmentalists argue about its safety. The confrontation has taken ugly turns. A United States Agency for International Development (USAID) official was quoted as saying, "the EU can play games with Europeans, who have full stomachs, but it is revolting and despicable to see them do so when the lives of Africans are at stake" (Washington Times of 30/8/2002). Another US

official was quoted saying, "beggars cannot be choosers" (Washington Post of 31/7/2002). Ironically, many non-GM food sources exist and are even cheaper. While hunger is a problem, this should not overshadow the bigger issue of safety and cultural acceptability.

At the same time, the 1999 *Food Aid Convention* (FAC) set the guiding principles in food aid. It stressed cost effective food purchases, cultural acceptability, and local food purchases. I think GM food is not the only saviour. However, it also deviates from the FAC provisions. Some elements of self-interest must be at play here. It was not surprising to most when, in 2002, Zambia and Zimbabwe rejected US GM corn, even when the threat of death was real. After all, governments have the right to make their own food policy and decisions. The safety concern is supported by the argument that, while feeding the hungry is paramount, "the threat of starvation should not be used as a bargaining chip for the introduction of GM technology and food." (Norflock Genetic Information Network, 2002, p. 2).

The long-term impact of GM food and the role of culture in determining food preferences must not be overlooked. In SSA, food preference is given to local breeds such as white corn and white rice. Foreign breeds are less preferred, such as yellow corn or orange rice. This is reinforced by a growing perception that GM foods cause human diseases. The safety and cultural issues regarding food are difficult to ignore.

4.7 The effect of food aid on food security and its future

The main issue here is whether food aid contributes to food availability, access (quantity and quality), and is culturally acceptable. In addition, the gender concerns of inequity of access (physically and monetary) and the level of food intervention need consideration. Food aid, bilateral or multilateral, is a small portion of overall food available in SSA. The amount of food aid given has been fluctuating with little increase. As a

percentage of ODA, it has declined. Food aid has become unreliable due to change in donor (especially bilateral aid) objectives. It is becoming increasingly more of a trade promotion business. On the other hand, accessibility of food aid is restricted to the targeted group. Also, not all countries receive food aid in amounts proportionate to the needs of hungry people. Some receive more than others even when hunger is universal. In some recipient countries, counter productive measures are used to abuse food aid. It can be corrupted, politically influenced during distribution, or invested in non-food sectors. At the same time, since food is culturally determined, food aid may not meet this criterion and thus may not be acceptable due to cultural restraints.

In all, food aid can, at best, play a limited role in reducing per capita food variability. It also does little in ensuring food availability for all and reducing international disparity in per capita food availability. While food aid targets emergency and development programs, food insecurity in SSA is chronic and cuts across social and economic divide. Restricted access to food aid and the equity problem in distribution compound the dilemma. Most importantly, the changing food aid policy and institutional environment undermines the reliability and sustainability of food aid.

In development programs like food-for-work, school feeding programs, or maternal health programs, food access is restricted to the intended group. When food is sold in local markets, sale revenues may be misused, misappropriated, or diverted to non-food sectors. I argue that, this is the most abused form of food aid. As if that is not enough, food aid is unreliable and unsustainable due to donor budgetary constraints and hidden motives. Also, food aid gives only short term relief and is plagued by donor political, fiscal, and trade

promotion concerns. These problems make food aid an unreliable and an indecisive piece in the SSA food security puzzle.

To be effective, food aid policy should be consistent and coherent with agriculture and trade policy. It must be assessed in the broader context of food security policy. Being only one element of an insurance policy, food aid's impact depends on national and international policies, acuteness of local conditions, and food aid management. If food aid is used as a first resort, dependency will be enhanced. Countries need to exhaust local food resources before food aid is considered. Thus, food aid must aim at saving lives, protecting livelihood systems and assets, and the livelihood of vulnerable groups. Care should be taken to avoid market, investment, and production disruptions.

The creative methods of the WFP (accepting cash donations and local food purchase) may develop local agriculture, markets, and improve economic growth. However, there has to be careful assessment of future food availability, potential price effects, and food safety. Without these considerations, food insecurity may get worse before it gets better. The overarching argument is that, used as a targeted resource, for infrastructure development, reconstruction (food-for-work), human capital development (food for education or school meals), and health and nutrition development (maternal and child health), and poverty reduction, food aid should have an impact on food security for the targeted group. The resultant improvement in human potential can translate into many sectors, including food security. These benefits could translate to the whole society due to the multiplier effect.

Chapter 5

Trade Liberalization and Food Security Links

5.1 Background and introduction

Many argue that integrating the world economy is a powerful means to promote economic growth, development, and poverty reduction (Riddell, 2003). Thus, trade liberalization (TL) is considered a centre piece of the process. TL is defined as "the reduction of barriers to trade" (Madeley, 2000, p. 44) or a "move towards freer trade through the reduction of tariff and other barriers" (ILO, 2001, p. 1). In 1947, the General Agreement on Trade and Tariffs (GATT) was signed by 23 countries. It was meant to provide codes of rules for a predictable and secure international trading environment. In 1986, the Uruguay round was launched and agriculture was included for the first time by GATT members. However, liberal trade policies of the IMF and World Bank (structural adjustment programs (SAPs) had already taken root since early 1980s in SSA. Thus, TL has been and is the central feature of economic policy. In 1994, the World Trade Organization (WTO) was borne and mandated to administer the growing body of multilateral trade agreements for mutual benefits (Madeley, 2000).

Trade liberalization has the potential to improve SSA food security. This can be achieved through the growth in domestic agriculture and the food sector, access to cheaper food sources, and through food imports. The success depends on whether the playing field is leveled for all trade participants. Amidst TL, economic and other asymmetries exist among regions/countries such as the nature of goods traded and the size of the economy. The asymmetries impact the TL process. Trade liberalization and its food security impacts need to ensure food availability and access through increased production and affordability. It has

been argued in the project that increases in income, both national and individual, is necessary for food security. Trade liberalization has to enhance the capacity of food availability and access to all people by increasing the incomes.

The effects of TL on SSA and net food importers are complex and deserve careful consideration before making concrete conclusions. It is necessary to understand TL effects on poverty and income. Also, there is need to assess whether more food traded means more food grown and/or more food for the hungry. Most importantly, does TL improve economic and income growth and do they translate to food access and availability? These questions call for an in-depth look at the role of food trade liberalization in food security.

Worldwide, "over 100 countries have adopted some measure of liberalization like tariff reductions, reducing quantitative restrictions, and other non tariff barriers to trade" (ILO, 2001, p. 2). In general, the effect of TL on SSA food security depends on the extent to which countries liberalize their policies, whether a country is an importer or exporter of specific products, and the structure of trade policies. At the same time, some argue that the flow of goods and services across borders improve welfare, including food security (Trueblood and Shapouri, 2001). This suggests that trade could promote food security.

However, the link between trade liberalization and food security continues to be hotly debated. Some argue, trade causes hunger (Madeley, 2000; Damon, 2000), and others believe, a complete liberalization of world agricultural and food trade is the best approach (Griswold, 1999) to food security. Remember, SSA, often viewed as a dysfunctional region, is riddled with institutionalized corruption, torn apart by civil and ethnic conflicts, has a deteriorating infrastructure, endemic poverty, and disease pandemics. These affect trading initiatives and opportunities and caution should be taken in making blanket conclusions.

I think TL and its food security impact remains a public policy question. TL has to impact on poverty and deal with poverty it creates or exacerbates if it is to be a significant force in ensuring food security.

TL has direct and indirect impact on food security. Directly, it improves and secures access to food supplies from the local or global markets. This ensures availability and may not ensure access. Indirectly, TL may reduce poverty by improving incomes. However, "more food traded doesn't mean more food grown or more food for the hungry" (Madeley, 2000, p. 43). On the other hand, global economic and political power imbalances and interests exist and these affect trade. Trade, carried out on fair terms, increases incomes and contribute to economic growth. Whether the growth reaches everyone is another matter. The key test against which to evaluate the role of TL in food security is whether it enhances access to foreign markets for exports and also improves income. Another question is whether TL ensures food availability through food imports and whether the food is affordable to those who need it.

5.2 Theoretical arguments about the role of food trade in food security and features of SSA trade flows within global economy

It is argued that the establishment of WTO provides opportunity for improving world trade in food commodities, and thus achieving world food security (Konandreas and Greenfield, 1996). According to International Monetary Fund's (IMF) *Global Economic Outlook 2002* report, liberalizing global trade barriers could lift 900 million people out of poverty by 2015. TL thus seems so optimistic considering the above.

The premise for the arguments in favour of food trade lies in three assumptions:

(1) food imports increase consumption by increasing food supply (availability), access, and reducing domestic prices, (2) it increases exports and thus income, and (3) it raises the levels of efficiency in the liberalized sectors and the wider economy (CUTS, 1998). These theoretical conceptions are great. However, how have they impacted on the physical and economic access to food? Also, do the assumptions answer concerns about quality, quantity, and cultural acceptability of food? At the same time, are concerns about food imports dependence, food availability and consumption disparities, and reduced per capita availability considered? The above questions are affected by the TL process.

Trade theory predicts that, "the greater the potential for trade, the greater should be the difference between countries in terms of economic characteristics" (Weeks and Subasat, 1998, p. 74). Theoretically, SSA should get its fair share in trade since it has a wide gap in economic characteristics with its trading partners. Despite this optimism, weaker states remain marginalized (Konandreas and Greenfield, 1998) due to wide socioeconomic and political differences. Also, in the world dominated by multinational corporations and their influence on prices and governments (Shaw, 1996), the future for SSA trade remains in doubt. However, neo-liberal proponents remain optimistic. They argue, "expanded trade provides hope, opportunity, and economic betterment to poor countries and people" (Riddel, 2003, p. 594). Thus, trade seems so powerful.

There has been a rise in inter- and intra-regional free trade agreements such as the North American Free Trade Area, Southern Africa Development Cooperation, and Common Markets for East and Central Africa. These, it is believed, have led to trade creation and increase in trade (USDA, 1998; Robinson, Sherman, and Thierfelder, 1999). Despite the optimism, SSA trade flows have exhibited varying characteristics. Its share of world trade

shrunk, from 3.7% in 1960-62 to 1.5% in 1994-96 (World Bank, 1998a). On the other hand, SSA over depends on Europe as its trade partner (recently about 51%, down from around 80% in the 1960s (IMF, 1999). For exports, SSA depends on primary commodities (mainly agricultural products), despite efforts to diversify. In 29 out of 47 SSA countries, three primary commodities provide about 50% of their export revenues (UNCTAD, 1998). In contrast, imports to SSA face high tariff and non-tariff barriers. Yet, according to research, countries with diversified markets structures and trading partners adjust quickly and take advantage of incentive signals, while countries with weak market infrastructure and relying on few exports commodities, show limited gains (World Bank, 1987; Shapouri and Rosen, 1989). SSA, despite the TL, has missed out or gained little in this process.

In SSA, the growth in trade and demand for agricultural products is potentially critical in boosting exports and food imports. Unfortunately, responsiveness to SSA exports is constrained by quality factors and low global prices. These affect economic growth and development. Despite TL promises, the uncompetitive nature of SSA agricultural products (due to low quality), civil wars and conflicts, and the subsidization by developed countries of their farming sectors conspire to undermine the strength and position of TL. At the same time, SSA weaknesses, aggravated by internal and external shocks, frustrate trade prospects and benefits.

5.3 Importance of agriculture, international trade theory and controversy

It is common knowledge that increased domestic agricultural production and imports are critical in improving food security. In SSA, agriculture is the dominant sector and backbone of its economy. It is the principal source of food, livelihood, and foreign-exchange earning (Badiane, and Delgado, 1995). According to Trueblood and Shapouri (1999, p. 29),

"agriculture contributes 35% of SSA GDP more than any other region, and 40% of total export earnings." Also, more than half of SSA population depends on agriculture. Thus, the export and import of agricultural products are vital for economic development and food security. Agriculture has impacts on foreign-exchange earning, food availability, and access. However, this is dependent on government policy. Food imports may not be government priority and the welfare system may be poor or non- existent. Also, export revenues may be committed in non-food enhancing sectors. Thus, despite food imports and exports, there is no guarantee food security will improve.

In international trade theory, free trade is favoured over protectionism. To succeed, openness to the rest of the world and exploiting comparative advantage is urged. The comparative advantage of SSA lies in agriculture. This proposition was advanced by Heckscher-Ohlin model. The argument for labour abundant countries to specialize in labour intensive goods (like agriculture in SSA) and capital abundant, capital goods is the core of this model. Theoretically, this framework for trade liberalization is unambiguously good for SSA. However, SSA economy is weak and uncompetitive in the global world. But, Pelagidis and Papasotiriou (2002, p. 520) argue that, "there is no positive correlation between state weakness and participation in international economic transactions." By implication, economically weak states participate less in trade. Weak states are dominated by limited export base, can not swiftly respond to incentive signals, and are severely affected by world market forces. To worsen matters, unlike other regions, some states in SSA are virtually collapsing. They are riddled by civil wars and conflicts, and are characterized by corruption and institutional instability. These undermine socioeconomic progress, most importantly,

trade. Thus, foreign-exchange, domestic incomes, and food production capacities are severely affected.

SSA has experienced agricultural land expansion and output. This has come with economic and environmental costs (Crosson and Anderson, 1995). SSA has insignificant other resources and its agriculture is less competitive. Its products are low in quality. There is also competing demands among food production, food imports, and agriculture for exports. Emphasis is placed in cash crop production at the expense of food crops (Feldman and Lawrence, 1975) (see also section 3.1). Agriculture, SSA main source of food and income, is undermined by developed countries domestic support, export subsidies, and limited market access. The WTO, mandated to ensure a fair global trade, is yet to deliver in this aspect. While protectionism has declined in the manufacturing sector, it has eluded the agricultural sector. These issues frustrate competition, economic viability, and food security prospects. Yet, Mendoza (2002, p. 2) argues, "national production, access to international markets, and the availability of foreign exchange to buy imports" significantly affect food security. This optimism will be eroded if trade barriers and trade distorting subsidies continue to dominate the global trade system. However, caution should be taken to ensure that trade does not cause food shortages. Thus, food trade (exports) should be regulated to ensure food sustainability.

In international markets, domestic price support and export subsidies create market distortions through import protection. There has been a rise in the level of subsidization of agriculture from U.S. $182 billion in 1995 when WTO was born, to 280 billion in 1997 (Madeley, 2000), to 300 billion, six times the amount of aid sent to developing countries (NCPA, 2003). But, this figure is $30 billion more than the entire GDP of Africa (NCPA, 2003, p. 1). This has led to production surpluses, artificial global price suppression, and an

unnecessary increase in food costs for domestic consumers. Subsidization thus undermines prospects for competition and pushes SSA agricultural to the margins, yet it is the backbone of the region's economy. Ironically, developed countries support liberalizing sectors they have comparative advantage in, but are reluctant to do so in their agricultural sectors. Agriculture remains the most protected and distorted globally (Haeri, 2001). While average tariff on manufactured goods fell to 5% worldwide, the one for agricultural goods rose to 40% in advanced countries (Griswold, 1999), a clear testimony to the unfair global trade. Thus, to rely on agricultural trade to support SSA food security appears untenable and unworkable considering this artificial imbalance.

The heavy protection of the agricultural sector by the EU, the main trading partner, spells doom for SSA. Yet, Trueblood and Shapouri (1999) argue that, reducing global trade barriers and subsidies to agriculture by half could raise global welfare by $89 billion a year, and complete elimination could raise it by $150 billion. I think this finding is a good basis for removing the subsidies and domestic support in developed countries. This could enhance competitiveness of SSA agriculture and increase its income and food production.

5.4 The effect of trade on food imports (grains) and its implications

It is argued that TL in poor countries has led to increased imports compared to exports, forced millions off their land, and have concentrated land holdings (Madeley, 2000). In SSA, millions have lost their land and land consolidation has resulted. Food imports have increased, but are still outpaced by population growth and food demand. This scenario is inconsistent with a strong and sustainable economy. It is not good for food security either. However, people have been made to believe that free trade is the answer to their food needs. The 1996 WFS declaration argues, "trade is a key element in achieving food security"

(Madeley, 2000, p. 43). Without trade, it is argued countries rely on their own food production for domestic consumption. While this might affect domestic incomes, the choice of food, and increase hunger, it is not a conclusive argument. Trade and food imports do not fulfill all aspects of food security. It is inarguable though that trade can contribute to food security. However, my experience shows that most of SSA food comes from household production and occasional local purchase. Local purchases occur when there is need to diversify food consumption or local production has run out of stock. Food can be bought from the market or exchanged.

Grains, the most significant food imports to SSA, have had varying characteristics. According to Paarlberg (2000, p. 325), "grain imports from the world market is relatively unimportant to total grains availability within most poor countries." Moreover, while the IFPRI projected the dependence on food imports of 10-12% for India in 1990, 30-35% for Bangladesh, 14-17% for Indonesia, and 44-46% for SSA (Pinstrup-Andersen, Pandya-Lorch, and Babu, 1997), in 2000, Paarlberg found that, the dependence on grain imports for poor countries is below 10% on average. In SSA, by 1993, "dependence on grains (food aid and commercial imports) was only 13.6%, rising from 10% twenty years earlier." (Paarlberg, 2000, p. 325). Also, in 1993, SSA countries imported only 4.6% of world grain (excluding food aid) (Paarlberg, 2000). While the food gap in SSA could be explained by other food imports other than grains, the explanation may not be strong enough since grains dominate food imports to SSA. However, despite this grain import dependency level, the World Bank estimate showed that, only 6.5% of calorie consumption in SSA is derived from imported grains (Ingco, Mitchell, and McCalla, 1996). It means that local grains production play a big role in grain availability and local calories consumption.

According to Shapouri, domestic grain prices have hinged on the ever increasing international grain prices (Shapouri, 2003). The high price of grains undermines its affordability. It can be argued that, despite increasing grain trade and import, its importance to SSA is insignificant in overall food consumption and availability. Thus, grain import to SSA is not a decisive portion of the food security dilemma. Furthermore, the fairness in distribution is questionable, especially in the absence of well-functioning welfare system and gender equity. Political influence and lack of income may affect imported food distribution and access. In addition, most of SSA depends on locally grown root crops and vegetables, supplemented by imports. This undermines the significance of imported grains, particularly when local grain production is high and cheaply available in the short term. Imported grain and other food imports are significant during natural and economic shocks. However, this also depends whether governments consider food imports a national priority compared to other sectors.

5.5 The implications of Structural Adjustment Programs (SAP) on poverty, agriculture growth, and food security

It is evasive to discuss food security without defining the role of structural adjustment programs (SAP) in the process. Since early 1980s, the IMF and World Bank have implemented a series of SAPs aimed at changing the domestic policy weaknesses of debt strapped countries (World Bank, 1996). The corner stone of SAP was poverty reduction, agricultural promotion, and economic growth. Most SSA countries, devastated by poverty and debt obligations, had little choice, but to adhere to mandated conditions. The donors preached anticipated benefits of the transformation. Recipients, expected to improve investment climate by eliminating trade and investment regulations and also boost foreign-

exchange earnings by export promotion, had to reduce government deficits by cuts in spending (Pinstrup-Andersen and Pandya-Lorch, 1994; Heidhues and Knerr, 1994). But, how far did SAP go to achieve these objectives?

The operating principle of SAP emphasized a shift from state-led to market-driven approaches. The impacts of these on economies, people, and societies varied. The anticipated economic stabilization and associated structural changes designed to improve foreign investment climate and reduce government deficits through spending cuts have had mixed results. Also, the expected rise in foreign exchange was short-lived. The inequality and poverty, while largely attributed to the colonial legacy and poor domestic policies, is also a by-product of SAPs. Surprisingly, these occurred at a time when there is global technological advancement, trade growth, and investments. The north-south disparity shown by high unemployment, low incomes, high inequality, and the dominant agricultural sector characterize global inequity. These have been exacerbated despite SAPs intentions.

In SSA, macroeconomic stabilization measures (aimed to restore internal and external balances) and the use of market forces to enhance competition and improve resource allocation negatively impacted welfare sectors like health, education, and food subsidies. Spending cuts, a common feature of SAP, devastated welfare of the poor and affected food production and imports sectors. These occurred amidst the WB and IMF mission of providing resources, sharing knowledge, building capacity, and forging partnership in public and private sectors to reduce poverty. Local farmers, subjected to cuts in social services, financial support, policies protecting food production, and traditional farming (Lee, 2001), witnessed worsening poverty and hunger (see Table 2). The reorientation of local economies from domestic to international markets and the shift away from food to cash crops dealt a

crippling blow to food prospects (see section 3.1). These came at a time when export-oriented agriculture in rich countries was heavily subsidized. At the same time, foreign corporations gained access to local markets when trade barriers were removed during SAPs.

The replacement of fixed prices by market determined ones and the introduction of incentives and subsidies for export-oriented agriculture negatively affected local agriculture and food production. The reduction of agricultural credits to local farmers and the cutting of agricultural staff and services undermined food and source of income. It is not surprising that economic growth, debt service obligations and poverty reduction in SSA (Killick, 1995; Oxfam, 1996) were affected during SAP implementation. The trade liberalization benefited mostly big agribusinesses at the expense of rural farmers, food security, and the environment. Thus, according to Renshaw (1995), SAPs in Senegal culminated in soil degradation, government's inability to provide seeds on credit, and fertilizers which became too expensive also benefited mostly men's farms. The resultant devaluation doubled transport costs (Renshaw, 1995). Rural-urban migration and associated social problems resulted.

Thus, while agricultural exports and corporate profits rose under SAP, SSA witnessed plummeting food security and prospects. The collapse of local farming cultures and communities, the impoverishment of rural families, and the resultant environmental degradation, combine to undermine hope. These, coupled with the skewed nature of the current trade liberalization process, further undermine SSA food security. The centre of hope lies in the removal of lending conditionality from the international agencies and a fair global trade regime.

5.6 Evaluation and conclusion

Changes in domestic and foreign trade policies have benefits and disadvantages (Wobst, 2003). The differences in economic structures and the nature of commodities affect the nature of trade relations and benefits. However, while trade was touted to increase food security, I have found that it has a limited effect on food availability and accessibility. For example, grain imports to SSA only contributed a small amount (4.6%) of total world grain imports in 1993. Despite this, at the local level, food may not be available due to the distribution and income problems. Most poor people live in rural areas and they lack resources to improve their socioeconomic development and well-being.

Generally, SAPs have had negative impacts on poverty. The use of SAP as a tool for policy change and institutional reforms frustrated local farmers, the agricultural sector, and rural communities, the heart of SSA food sources. Increasing exports could indirectly affect food security but protectionism, subsidization, and the concentration of land holdings have frustrated this. Protectionism and subsidization may frustrate local food production and accessibility. Also, the increase in food imports may not increase food accessibility due to lack of income to buy food. The imported food may not be culturally acceptable and proper utilization may be affected by poor health of the people and poor sanitation.

The major issue here is the policy aspect. The domestic food export policy must recognize that food insecurity may result if there are no control measures aimed at promoting food availability and price controls. Thus, there is a need for a comprehensive domestic policy aimed at promoting food production, regulating food exports, and ensuring food sustainability within the country. This can be implemented at the household and national levels as long as effective policies are in place.

Chapter 6

Conclusion

Food insecurity and the quest to reduce it, is as old as civil society. Despite the importance of food, the number of those who are food insecure remains unacceptably high in SSA. The complexity of food insecurity arises due to the nature of its causes. Socioeconomic, natural, and political factors combine to aggravate the problem. The socioeconomic and political factors causing food insecurity have their origin in colonialism and its legacy. The colonial policy in Africa subjugated, weakened, and destroyed the fabric of indigenous society and ways of life. The food sector was not spared. However, to achieve food security, food availability, access, and utilization must be attained and sustained. The food must be culturally acceptable. This is an enormous challenge for SSA. Ironically, these occur against the backdrop of increased global food output enough for everyone. Thus, the problem lies in the inequity in food distribution aggravated by socioeconomic and political forces affecting its distribution.

Through theoretical discussions in the project, it is evident that poverty, its dynamics, and inadequate food policies explain the current wave of food insecurity engulfing SSA. This is exacerbated by dynamics in the global economic and social trends. Gender differences in food access, production, preparation, nurturing and in household health, combine to worsen the food problem.

In chapter two, the dominant issue is the shift in food security analysis. In the 1970s, international and national food security dominated discussions. In the 1980s, household and individual food security became the major issue. I think the shift is a realization of the significance of households in food production and consumption. In the 1990s, poverty

reduction dominated development discussions. The major problem affecting food is the vulnerability and risks affecting food supplies. Thus, the main challenge is maintaining and or improving the level of food acquirement and shocks to food acquirement. That is, there is a need to deal with socioeconomic, political, and cultural factors leading to vulnerability to hunger.

Chapter three discusses the nexus between poverty and food insecurity. Colonialism and its legacy lie at the center of SSA food insecurity. The emphasis on cash crops, land alienation, the introduction of taxation on land and cattle, and the exploitation of SSA natural and human resources combined to undermine food production and its sustainability. To date, poor economic performance in SSA bears this colonial legacy. It should be emphasized that poor national economic performance affects people's income, infrastructure development, employment, welfare, and economic growth. Thus, poverty reduction should be the ultimate goal in promoting food security. While this is crucial, economic mismanagement, coupled with external shocks, combine to undermine this endeavour. The resultant declines in per capita output and income, food consumption, investment, and the rising external debt, question the achievement and sustainability of food security measures.

Chapter four appreciates different motivations for food aid. Food security, self-interests and foreign policy gains are the driving forces behind food aid. The flexible nature of food aid poses a weakness as a food security measure. It may be used for programs and projects not food related. While in-kind food aid is vital during emergencies, it only provides short-term relief and the effect is localized. The shift from the surplus disposal theory to budget-driven approaches questions the reliability and sustainability of food aid. The changing funding mechanisms and the emphasis on emergency not program and project food

aid is also suspect. However, the evaluation of food aid success needs to be against the target, not the amount of food aid given. Without this consideration, wrong conclusions may be made as to food aid effectiveness.

Chapter five focuses on the role of trade liberalization and food trade in food security. Trade liberalization has the potential to improve SSA food security. However, the integration of SSA into the world economy and its anticipated economic growth, development, and poverty reduction, has had minimal effect. While food trade has increased globally with TL, the amount of imported food (grains) is an insignificant portion in SSA food availability and per capita food consumption. Also, economic access to imported food is not automatic considering the level of poverty. It is also arguable whether more food traded means more food grown and more food for hungry people. Worst still, SSA agriculture, the backbone of its economy and food, remains globally uncompetitive. Even if it were, the resultant increase in foreign-exchange and household income may not translate to improved food production, availability, access, and imports.

To answer the project question, the current approach to poverty reduction, the mechanisms of food aid allocation and distribution, and the liberal trade policies have not improved hunger and food security in SSA. Solving the SSA hunger crisis needs more than sending emergency food aid, program or project food aid. Food aid could do more good if it is explicitly directed to reducing poverty. Also, the globalized system of agricultural production and trade that favour large corporate agriculture and export-oriented crops but discriminate against small scale farmers and agriculture oriented to local needs, is disastrous for food security. TL and food aid have failed because of the multi-sectoral and multi-dimensional nature of food security. Also, it is complex to try and accomplish all aspects of

food security simultaneously (food availability, access, utilization, and cultural acceptability). They are affected by different socioeconomic and cultural dynamics.

However, to be more effective, the following circumstances need to prevail: (1) Food policy must be reoriented towards the broader poverty and hunger reduction initiatives. This can best be executed at the national level with global coordination. For food aid, the design should be such that it makes a link between planned aid programs and its impact on poverty, food availability and access. (2) The success of food aid will depend on explicit guidelines and checks aimed at avoiding diversion to non-food related sectors, and (3) the chronic nature of food insecurity in SSA calls for an integrated approach. It must involve sustained food production, imports, and proper use of food aid.

The project has tried to evaluate the effectiveness of food aid and trade liberalization in SSA food security problem. While trade is crucial, differences in economic characteristics affect the level and benefits of trade. Also, the reliability and sustainability of food aid is doubtful considering its changing policy environment. While food aid can play a useful role in the fight against hunger, its contribution is limited and can not be the sole remedy to hunger.

The food security measures are a complex policy process. Fundamentally, the food gap arises due to inequitable food distribution and access determined by socioeconomic forces. The gendered process of household food and resource distribution, coupled with cultural beliefs undermine women during food consumption. However, women play a big role in food-related activities (production and preparation) and yet they remain peripheral during food consumption.

The project argues that economic empowerment is the core of food security achievement. Poor people do not have the means to grow and or purchase needed food. Efforts need to target poverty and all its manifestations. Thus, access to paid employment, productive assets (land and capital), and productivity enhancing resources (technology, credits, education, and healthcare) are needed. After all, poverty and food insecurity are closely related.

I have also found the lack of effective domestic food security policy. I think food security policies can be more effective when developed and implemented at the national level. However, this needs international collaboration. To achieve international food security amidst varying socioeconomic, political, and cultural differences regarding food is illusory. Nationally, the government can regulate and monitor food production, storage, marketing, and imports. These can promote food availability and access. Since SSA produces most of its own food, food storage and preservation policies need to be emphasized at household and national levels. Ironically, some SSA governments do not have their own food reserves and the traditional methods of food preservation are fast disappearing. This is further undermined by low food output and the market-oriented global economy.

The project has found flaws in the use of food aid and trade liberalization as instruments to food security. It is clear food aid gives short term relief, yet, SSA food problem is chronic. The dominant agricultural sector, also its source of food, is not competitive to earn reasonable income. The amount of foreign exchange earned and food imported to SSA is not sustainable and reliable. TL and its food security impacts still remains a public policy question. Its impact on poverty and how it deals with the poverty it creates or exacerbates is significant in food security debates.

This study confronted some research difficulties. This study did not use primary data sources but relied on secondary sources. Thus, the reliability of some of the data therein is questionable. This is because there is no single measure of food security. The use of different measures makes it difficult to standardize the hunger problem and magnitudes. I think the most appropriate measure of hunger is amount of calorie consumption per head. This could be weighed against the FAO recommended standard calorie consumption of 2,200 calories per person per day. It was also difficult to find comprehensive and reliable data which captures all aspects of food security. In the process, it was difficult to interpret and analyze other research findings and make comparisons. Most studies do not capture all aspects of food security. This study too cannot claim to have captured all the tenets of food security. To achieve them together is a complex and at present a distant dream. In the study, I also faced conceptual issues relating to causes of food insecurity and the implementation of policies aimed at reducing the problem. For example, food aid may not be acceptable due to cultural constraints.

The problem of food security is not peculiar to SSA. However, this project provides a basis for understanding food insecurity in other regions. While the causes vary by region, the process of integrating global economy seems to play a significant role in defining the extent to which regions are affected. SSA endures endemic hunger while other developing regions prosper with the global integration. This can be explained by the poor levels of socioeconomic growth in SSA. The poor indicators of growth tell the whole story in SSA.

While SSA region may appear broad for this project, the findings and recommendations can be applied in specific countries. After all, food insecurity in SSA occurs due to natural, socioeconomic, political, and health shocks. In summary, food aid and

TL are only a small piece of SSA food security puzzle. I think food aid and TL, if reoriented towards poverty reduction, could enhance food prospects but will not solve the problem.

I think the project contributes in that it exposes the illusion which the WFS created i.e. that trade and food aid can significantly improve food security. From my evaluation, it became clear that both are necessary but not sufficient in the overall strategy for food security. I also think this study has tried to go beyond poverty dynamics in understanding SSA hunger problem. The project has evaluated the unique roles that food aid and trade liberalization play in SSA food security dilemma. It is clearer that, food aid and trade liberalization alone may not improve SSA food security due to its complexity.

I have argued that an integrated approach is the way to go to achieve food security. The project therefore offers to SSA political and civil leaders the unique perspective in appreciating the complex nature and dynamics involved in defining food security and solving the problem. The project challenges leaders to look beyond one approach to ensure food security, but rather try to address all factors which breed negatively on the food system. This is in recognition of the fact that food security is affected by socioeconomic, natural, and political processes.

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Appendix A: Regional HIV/AIDS Statistics and Features, end of 2002

Region	Epidemic started	Adult and children living with HIV/AIDS	Adults and children newly infected with HIV	Adults prevalence rate (15-49 years)	% of HIV-positive adults who are women
Sub-Sahara Africa	late 70s early 80s	29.4 million	3.5 million	8.8%	58%
N Africa and Middle East	Late 80s	550,000	83,000	0.3%	55%
South and S.E Asia	Late 80s	6.0 million	700,000	0.6%	36%
E. Asia and Pacific	Late 80s	1.2 million	270,000	0.1%	24%
Latin America	Late 70s early 80s	1.5 million	150,000	0.6%	30%
Caribbean	Late 70 early 80s	40,000	60,000	2.4%	50%
East Europe & Central Asia	Early 90s	1.2 million	250,000	0.6%	27%
Western Europe	Late 70s early 80s	570,000	30,000	0.3%	25%
North America	Late 70s early 80s	980,000	45,000	0.6%	20%
Australia and new Zealand	Late 70s early 80s	15,000	500	0.1%	7%
TOTAL		**42 million**	**5 million**	**1.2%**	**50%**

The proportion of adults (15-49 years of age) living with HIV/AIDS in 2002, using 2002 population numbers.
Source: UNAIDS and World Health Organization (WHO) AIDS epidemic update as of December, 2002.

Appendix B: Impact of HIV/AIDS on agricultural labour force in the most affected African countries (projected losses in percentage)

Country	2000	2020
Namibia	3.0	26.0
Botswana	6.6	23.2
Zimbabwe	9.6	22.7
Mozambique	2.3	20.0
South Africa	3.9	19.9
Kenya	3.9	16.8
Malawi	5.9	13.8
Uganda	12.8	13.7
Tanzania	5.8	12.7
Central Africa Republic	6.3	12.6
Ivory Coast	5.6	11.4
Cameroon	2.9	10.7

Source: FAO Committee on World Food Security (27th Session, Rome, 28 May – 1 June, 2001): The Impact of HIV/AIDS on Food Security.

Appendix C: Food Aid Convention, Annual grain Shipments by Major Donors, 1995/96 – 1998/99, June/July Year, Metric Tons: Wheat Equivalent

Donor	Minimal annual contribution (1995 conv)	1995-96	1996-97	1997-98	1998/99	Minimum contribution (1999 conv)
Australia	300,000	298,146	305,127	293,221	273,064	250,000
Canada	400,000	448,764	468,431	417,917	487,095	420,000
EU	1,755,000	2,431,991	2,049,591	2,201,162	1,962,481	1,320,000
Japan	300,000	474,870	326,835	302,626	560,135	300,000
USA	2,500,000	2,846,384	2,553,283	2,818,500	4,374,121	2,500,000
Other*	95,000	95,112	71,452	77,221	110,232	105,000
Total	**5,350,000**	**6,580,267**	**5,774,719**	**6,110,647**	**8,127,128**	**4,895,000**

Source: International Grains Council (Adopted from Paggi,M.S and Rosson, C. P. (2002). International Food Aid, p. 2).

* Countries other than major donors