

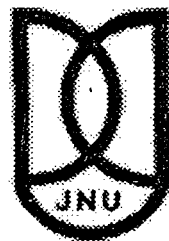
**STRUCTURAL ADJUSTMENT PROGRAMME AND ITS
IMPACT ON FOOD SECURITY IN GHANA
FROM 1983 TO 2004**

*Dissertation submitted to Jawaharlal Nehru University
in partial fulfillment of the requirement
for the award of the degree of*

MASTER OF PHILOSOPHY

Submitted By

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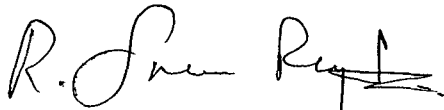
2005

Declaration and Certificate

Date: 29th July 2005

DECLARATION

I declare that the dissertation entitled “**STRUCTURAL ADJUSTMENT PROGRAMME AND ITS IMPACT ON FOOD SECURITY IN GHANA FROM 1983 TO 2004**” submitted by me for the award of the degree of **Master of Philosophy** of Jawaharlal Nehru University is my own work. The dissertation has not been submitted for any other degree this university or any other university.



R. Srinivasa Raghavan

CERTIFICATE

We recommend that this dissertation be placed before the examiners for evaluation.



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Padmini (Mother)
&
Raman (Father)

They are the reason "I" am.....

*This piece of work keeps aloft their perseverance,
steadfastness and their dewy eyed dreams they see for
me.....*

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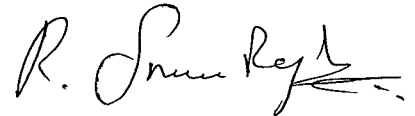
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Lastly, it would be my sole responsibility for any omissions and errors committed in this dissertation.

Date: 29th July 2005

Place: New Delhi



R. Srinivasa Raghavan

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Figure 1: Ghana in Africa

GHANA ADMINISTRATIVE MAP

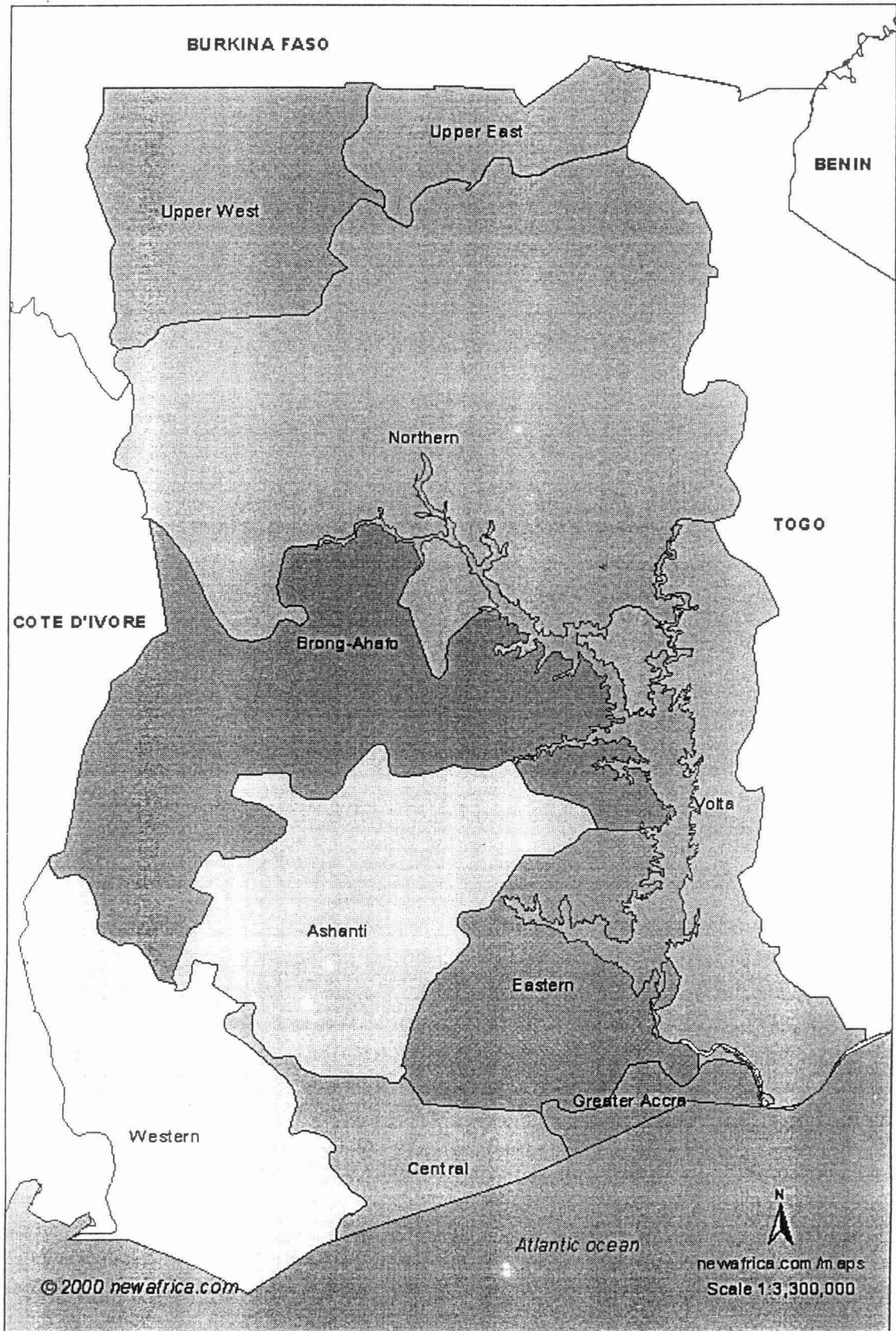


Figure 2: Ghana Administrative Map

Map of Ghana

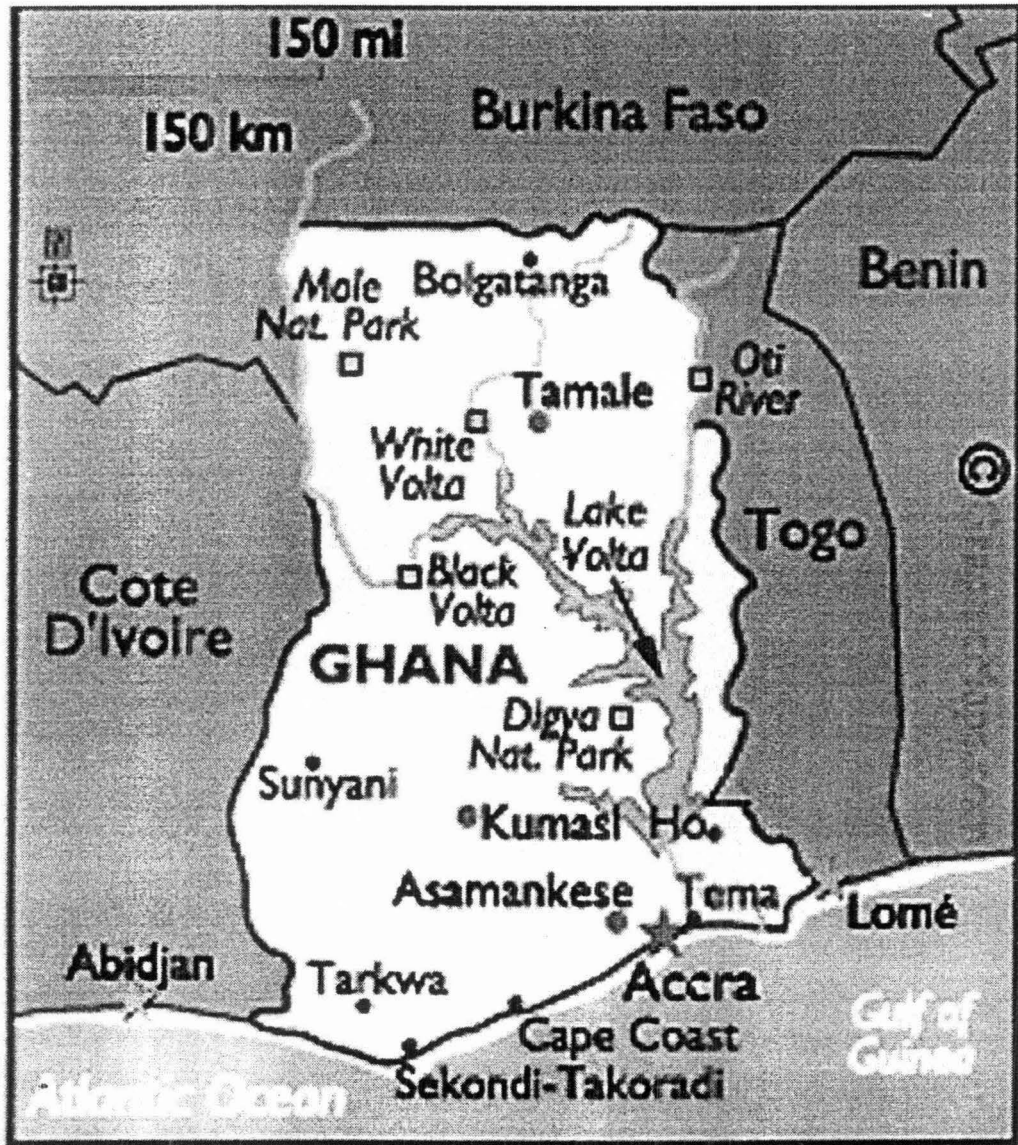


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Ghana: At a glance

Weights and Measures

1 metric ton (mt)	=	0.98
1 long ton	=	2.240 Ibs = 1016 metric tons
1 hectare (ha)	=	2.47 acres
1 acre	=	0.405 ha
1 Kilometre (km)	=	0.62 miles
1 mile	=	1.609 km

Official Currency Equivalents

February 1973 to June 18, 1978	-	US\$ 1= Cedi 1.15
As of August 26, 1978	-	US\$ 1= Cedi 2.75
As of April 21, 1983	-	US\$ 1= Cedi 24.69
As of October 19, 1983	-	US\$ 1= Cedi 30.00
As of March 25, 1984	-	US\$ 1= Cedi 35.00
As of August 25, 1984	-	US\$ 1= Cedi 38.00
As of December 3, 1984	-	US\$ 1= Cedi 50.00
As of April 19, 1985	-	US\$ 1= Cedi 53.00
As of August 12, 1985	-	US\$ 1= Cedi 57.00
As of October 7, 1985	-	US\$ 1= Cedi 60.00
As of January 11, 1986	-	US\$ 1= Cedi 90.00
As of September 19, 1986	-	US\$ 1= Cedi 128-170
As of October, 1987	-	US\$ 1= Cedi 170-175
As of 1997	-	US\$ 1= Cedi 2,050.17
As of 1998	-	US\$ 1= Cedi 2,314.15
As of 1999	-	US\$ 1= Cedi 2,669.30
As of 2000	-	US\$ 1= Cedi 5,455.06
As of 2001	-	US\$ 1= Cedi 7,170.76
As of January, 2002	-	US\$ 1= Cedi 7,195

Note:

Currency: cedi
Currency code: GHC

Preface

The studies on food insecurity posit a unique problem. Studies in the area are rarely attempted from a broad social science perspective in explaining the causes of food insecurity. Scholars have identified lack of finance discipline, corruption in public sector and failure of the government in providing incentives for producers in the primary product sector that generates the bulk of the country's foreign exchange and so on as general factors leading to food insecurity. The food insecurity in Ghana started in the 1970's, to tackle the situation Structural Adjustment Programme (SAP) was introduced with the help of World Bank/IMF in 1983. I studied the SAP programme at four levels, namely, global, national, household and individual. I have linked the above four from top to bottom. The issue of global food insecurity in my study is looked at aggregate production and the availability in the international markets. At the national level I have looked the problem at aggregate domestic production and the capacity to import shortfalls. The household level is the problem is assessed at food and non-food prices (inflation), income and access to adequate quantities of the available food. The individual level is studied by taking the nutritional (calorie intake) and food safety.

My objective of the study is to analyze the impact of economic crisis at various levels of food security in Ghana, to examine the implementation of SAP in Ghana, to analyze the impact of SAP on various levels of food security in Ghana and the role of international community in ensuring food security in Ghana.

I started my study with the following hypothesis: the economic crisis in Ghana affected the food security and the Structural Adjustment Programme led to improvement in economic conditions and it improved various levels of food security such as at national, household and individual. Though it seems there are some improvements in food security and overall economic condition but a close scrutiny shows that the SAP did not strengthen the overall food security and economic conditions in Ghana.

The study is divided into following chapters: The chapter one presents the Introduction of the study and causes of Economical crises of Ghana. The chapter two presents the Political Economy of Ghana in the Colonial and post-colonial period. And it also examines the economic conditions and food security in Ghana. The chapter three analyses the agricultural policy and the role of government in food security. The chapter four examines the economic crisis in Ghana and its impacts on food security strategies. And it also examine role in public and private sector. The chapter five deals with the Structural Adjustment Programme (SAP) and its impact on food security in Ghana. It also examines the role of international community on food security. The chapter six presents conclusion of the study.

List of Acronyms and Abbreviations

ADB	Agricultural Development Bank
ASRP	Agricultural services Rehabilitation Project
AGDP	Agricultural Gross Domestic product
CIDA	Canadian International Development Agency
CRI	Crops Research Institute
CPI	Consumer Price Index
DAHP	Department of Animal Health and Production
ESA	Agriculture and Development Economics Division
ERP	Economic Recovery Programme
EEC	European Economic Community
FRI	Food research Institute
f.o.b.	free on board
FAO	Food and Agriculture Organization
GFDC	Ghana Food Distribution Cooperation
GDP	Gross Domestic Prices
GFP	Ghana Forestry Project
GFDC	Ghana Food Distribution Corporation
GNPA	Ghana National Procurement Agency
GWC	Grains Warehousing Company
GCB	Ghana Commercial Bank
HIPC	Heavily Indebted Poor Countries
IFAD	International Fund for Agricultural Development
IDA	International Development Association
ILO	International Labour Organization
IMF	International Monetary Fund
ISSER	Institute of Statistical, Social and Economic Research
MOA	Ministry Of Agriculture
MOH	Ministry Of Health
MTADP	Medium-term Agricultural Development Plan
MMB	Meat Marketing Board

MTADP	Medium, Term Agricultural Development Plan
Mt	metric ton
NA	Not available
NGO	Non-Government Organization
PNDC	Provincial national Defence Council
PPMED	Policy Planning, Monitoring and Evaluation Department
PAMSCAD	Programme for the Mitigation of Action the Social Cost of Adjustment
RPM	Report of Preparation Mission
SPM	Special Programme Mission
SAP	Structural Adjustment Programme
SOE	State –Owned Enterprises
TUC	Trade Union Congress
UN	United Nation
UGCC	United Gold Coast Convention
UNICEF	United Nation Children’s Fund
UNDP	United nation Development Programme
USAID	United States Agency for International Development
WDR	World Development Report
WBCP	World Bank Cooperative
WFP	World Food Programme
WB	World Bank

Chapter-I

INTRODUCTION

Chapter I

Introduction

Food security means ensuring that all people have physical and economic access to the basic food they need to work and function normally. It can be constrained by availability (inadequate supplies of food, including imports of food aid) and by physical and economic access. The definitions of food security but the most relevant definition is that the food security refers to “good quality nutritious food hygienically packaged, attractively presented, available in sufficient quantities all year round and located at the right place at affordable prices.”¹

Alamgir and Arora state that the food security is associated with food intake at individual level and food availability at other levels, for example at the household, regional and national levels. The most important element of food security is the “availability of food “and the “ability to acquire it”. The Universal Declaration on Human Rights in Article 25 clearly spells this out “that food is a human right is obvious and is not debatable”.²

Food security is one of the most complex political, economic and moral problems of our times in Africa. The food security in a nation is one of the most fitting measurements of development, particularly in low-income countries especially in sub-Saharan Africa, are faced with food security crisis³. The government and non-governmental organizations (NGOs) were made to secure the food security measures.

¹ Ministry of Food and Agriculture, Government of Ghana, Accra, 1988, pp.1-12.

² Elizabeth M Gabona, “*Food security and Governance in Africa: Some lessons from Uganda*”, (Uganda, 2005), p. 1.

³ Ibid, p.1.

Food security crisis arises from growing inequality in the distribution of resources, food and income. The threat of famine, mass starvation, civil strife and poverty are looming and persistent. Most governments are unable to provide the needed infrastructure, better marketing and storage facilities and /or agricultural policies that encourage subsistence production. There can be no development without the creation of sustainable and regenerative food systems for all people. After many years of food security programmes, the situation of food security worldwide remains an indictment of our policies and programmes. Africa is faced with food security crisis particularly in the past three decades. Food security crisis arises from growing inequality in the distribution of resources, food and income.

If the countries of the Horn of Africa are to eliminate food insecurity, they must not only boost agricultural output but also improve standards of health and education and strengthen their infrastructure so as to expand economic opportunities.

The elimination of food insecurity in the Horn of Africa must be considered a long-term development goal that can best be achieved by progressing through a sequence of challenging, yet attainable, targets. Several relevant targets were established during the series of International conferences and summits held in the 1990, the most crucial for food security being the 1996 World Food Summit, which resolved to halve the number of undernourished people by 2015. This commitment, undertaken by Heads of state of Government attending the World Food Summit, was reiterated in the United Nations Millennium Summit Declaration of September 2000.

For the countries of the Horn of Africa, achieving this goal will entail a reduction in their total number of chronically undernourished people from 70 to 35

million. However, the problem of food insecurity cannot be addressed in isolation. Parallel progress needs to be made with education and literacy; reductions in infant, child and maternal mortality; improved reproductive health and environment protection. The countries of the region can now establish their own regional and national targets as well as associated indicators on the basis of these global goals.

As well as setting targets, the international conferences affirmed that their established development goals should be achieved within the framework of human rights. This “rights-based” approach recognizes the responsibility of national government and their international development partners in ensuring the fulfillment of people’s fundamental rights including the right of everyone to be free from hunger. Second, it establishes that development beneficiaries are entitled to participate in all decisions affecting their lives. Action taken to reach the development goals set over the past decade must be implemented simultaneously at different levels.

The U.N. World Food Program (WFP) said that more than thirty-eight million people across Africa are at risk of starvation. Hardest hit are the Horn of Africa, where about 17.9 million people face severe food shortages and southern Africa, where 16.41 million are at risk. Some thirty-eight million Africans are at risk from an unprecedented hunger crisis on the continent, a senior United Nations official told the Security Council stressing that adequate political will and resources can stem the tide of famine.

“Mass starvation in Africa is not inevitable,” James Morris, the Executive Director of the UN World Food Programme (WFP), said in an open briefing to the Security Council. But in order to make progress, he cautioned, the difficult political choices will have to be made, both by African States and by traditional donor

countries'. In the short term, an infusion of funds is urgently needed, while long-term goals must include greater investment in agriculture and changes in international trade regimes. Mr. Morris described the upsurge in recent years of food emergencies, saying his agency has done so largely by sponsoring food-for-work and other development projects. Examining the causes for this "explosion in food emergencies", Mr. Morris cited collapsing economic systems, political and ethnic violence, AIDS and weather conditions. All of these factors are combining to exacerbate Africa's critical situation, while WFP has received pledges of only 56 percent of the \$511 million needed to help meet the continent's needs.

Looking to the broader picture, the World Food Programme chief urged major changes to mitigate crises, including a shift from reliance on the United States for food aid.

Mr. Morris urged the creation of a new global trade environment, stressing that developing countries simply cannot compete with developed country subsidies that now amount to more than a \$1 billion a day and allow food to flow into poorer countries, making investments in agriculture unprofitable. "People are hungry because their governments have made the wrong political decisions", he said. "In the end, hunger is a political creation and we must use political means to end it."⁴

Famine and the crisis of Africa development have become inseparably linked in popular writing. Visual images of starvation are the icons of African failure, yet have a dispelling quality accusing everyone and no one. This article reviews recent research on the genesis, dynamics and consequences of famine in Africa. While the entitlement

⁴ file://A: Economic Commission for Africa5 files\020304_amo.ke.htm.p.4.

approach to starvation associated with Amartya Sen has proven most helpful it must be situated on the larger political economic canvas by which entitlements and endowments are distributed and fought over-class relations. Food crises must be rooted in what Sen calls the “totality of rights” not entitlement in the narrow sense. This provides an important link between famine, food security and democratization in Africa.⁵

In the case of Ghana in West Africa, the pacesetter of African independence from colonial rule has now emerged as the test case of structural adjustment. A program of structural reform has both economic and political dimensions. World Bank puts it; a Structural Adjustment Programme (SAP) implies “not just less government but better government –government that concentrates its efforts less on direct interventions and more on enabling others to be productive.” Reacting enthusiastically to this performance, the World Bank’s representative on the scene concluded that “if it can happen in Ghana, it can happen in any African country.”⁶

Agriculture is the mainstay of the Ghanaian economy, providing food for its population and accounting for a large part of the country’s foreign exchange earnings. Mohiuddin Alamgir and Poonam Arora sought to identify the food security status of the world’s rural poor and focused on strategies designed to enhance food security at the household level, in particular. Moreover this study looks at food security at the Global, National, Household, and Individual level in Ghana in terms of the impact of the Structural Adjustment Programme. These levels are linked from top to bottom. The food security at a higher level is an important factor in the food security at lower levels of the linkages. The major food security issues differ at the respective levels. At the global level, the major food security issues are the aggregate production and

⁵ Ibid.p.5.

⁶ Donald Rothchild. “*Ghana: The Political Economy of Recovery*”, Lynne Rienner Publishers,(London,1991).p.3.

availability in the international markets. But many developing countries face inadequate food supply while global food production is adequate. It happens at national level because of limitation of foreign exchange to import food.

At the national level, the major food security issues include the aggregate domestic production, and the capacity to import shortfalls. At the household level, the major food security issues are namely, Food and non-food prices (inflation), income and access to adequate quantities of the available food.

In many instances while food supply is adequate at the national level many households still face food security problems. At the individual level, the main food security issues are nutritional adequacy (calorie intake) and food safety. Adequate food may be available in a household but significant malnutrition may occur among some members, particularly, women and children. Ghana Food Distribution Corporation (GFDC) was conceived to distribute food items when prices were perceived as high, particularly close to the next harvest. It purchased and distributed many food types alongside private traders. It offered minimum guaranteed producer prices to serve as incentives to increase production. But it was not able to guarantee minimum consumer prices to the poor households. Thus it proved to ineffective programme in handling the food security problem.

Food security is a continuing challenge in sub-Saharan Africa measures to secure a stable and sustainable flow of food supply, at affordable prices, are critically imperative for preventing malnutrition, famine and food insecurity. Government

interventions in food markets, especially those that are triggered by the instability inherent in food production and prices, are common in practically all countries.⁷

Food security in Ghana continues to be threatened by various factors such as seasonal and unstable domestic production, high food prices and inflation, low household incomes, persistent high level of unemployment. Effectively addressing the many causes of the food security problem in the country has been elusive. Even though the country has faced chronic food insecurity for some periods in the past, such as the prolonged drought from 1978 to 1983, the transitory food insecurity is the major problem⁸.

Government intervention in food markets through food production and price policy in Ghana. This becomes triggered the food security in the form of food intake, food availability and food accessibility. Despite the measures, particularly in the past three decades, the primary issues of food security in Africa, particularly in Ghana, make the situation even worse.

Ghana's economic crisis can be described in following terms.

- 1) Failure of the development strategies pursued since independence which focused on large-scale state-owned enterprises dependent on imported raw materials, for example, cereals (maize, rice and sorghum), roots and tuber (cassava, yam and coco yam) and heavily protected by the state;
- 2) Falling savings and investment in the private and public sectors along with falling output and accelerating inflation; and

⁷ V.K. Nyanteng, and Samuel Asuming – Brempong “ *The Role of Agriculture in Food Security in Ghana*” Food and Agriculture Organization of the United Nation (Rome,2003).p.3.

⁸ Ibid.p.4.

- 3) External shocks - expulsion of nearly one million Ghanaians from Nigeria in 1983, plummeting cocoa prices and severe droughts of the early 80.
- 4) Failure of the Government to provide adequate incentives for producers in the primary product sector which generated the bulk of the country's foreign exchange through exports.
- 5) Lack of financial discipline and corruption in the public sector.
- 6) Rising oil prices and foreign debt since the 1970s.

These factors led to foreign exchange crisis in 1982. By the end of 1982 “real per capita income declined by more than 30 per cent and the overall balance of payments deficit widened leading to a depletion of foreign exchange reserves and an accumulation of external payments of deficits of about US\$580 million by the end of 1982”.⁹

The Structural Adjustment Programme (SAP) was launched in response to the crisis situation described above. The first phase of this programme focused on stabilization, which was to be followed by a phase of rehabilitation. The final phase may be described as one of liberalization. The key elements of the strategy for implementing the SAP have been: (a) a realignment of relative prices to encourage productive activities and exports through strengthening of economic incentives; (b) a progressive shift away from direct controls and intervention towards greater reliance on market forces; (c) the early restoration of monetary and fiscal discipline; (d) the rehabilitation of social and economic infrastructure; and (e) the undertaking of structural and

⁹ S.D. Barwa, *Structural Adjustment Programme and the Urban Informal Sector in Ghana: Issues in development*, Discussion Paper- 3, Accra, First Published 1995, pp. 1-3.

institutional reforms to enhance the efficiency of the economy and encourage the expansion of private savings and investment.¹⁰

On the other hand, the economic crisis affected food security in Ghana in a significant way. Deficit of foreign exchange reserves affected the country's import of food. Structural failure in Ghana Food Distribution Corporation (GFDC) made the country vulnerable to the problem of food security. It is in this context the proposed study examines the impact of Structural Adjustment Programmes on food security in Ghana from 1983 to 2004.

Measures to secure stable and sustainable food supply, at affordable prices, are critically imperative for preventing malnutrition and famine. Many countries, especially in Sub-Saharan African are faced crisis with food security. After many years of food security programmes, the situation of food security worldwide remains a challenge for policies and programmes, despite the concerted efforts of government and non-governmental organizations (NGOs).

The purpose of the present study is to examine the role of governments and Non-Government Organization (NGOs) on Food security in the globalization and point out some strategies for the design of food security systems.

¹⁰ Ibid.p.4.

Chapter-II

ECONOMY OF GHANA

Chapter II

Economy of Ghana

2.1 Political Economy of Ghana during the Colonial period

(a) Colonial infiltration in Ghana

During the seventeenth and eighteenth centuries, adventurers- first Dutch, and later English, Danish, and Swedish, were granted licenses by their governments to trade overseas. The first Europeans arrived in the late fifteenth century in the gold coast area. Meanwhile, these European, on the Gold coast, competitors built fortified trading stations and challenged the Portuguese. Eventually, they had been drawn into conflict with local inhabitants as Europeans developed commercial alliance with local chiefs. The Europeans were striving to consolidate the territories in the gold coast areas and to settle in permanent environment. The British gained possession of the Dutch coastal forts by the last quarters of the nineteenth century, thus making them, the dominant European power on the gold coast.

The coastal regions increasingly came under control of the British, which had Military confrontations between Asante and Fante. But Asante's activities on the coast that had compelled the Fante states to sign the bond of 1844. This was era of significant progress in social, economical and political development in Ghana. As a result the communications were improved in south. Simultaneously new crops cacaos were introduced in 1878 and the Cocoa Marketing Board created in 1947, which assist farmers, and to stabilize the production and sale of their crop. The nation's economy

was based on production of cocoa and which was largely in the hands of Africans. This region Gold coast was exporting more than half of the world's Cocoa supply.¹

(b) Colonialism and Emergence of Capitalism

The colonial period state earned income from the export of timber and gold. Until 1890s, the Europeans were brought Gold remained in the hands of Africans. In 1897 the first foreign-run enterprises gold company was established in the name of Ashanti Goldfields Corporation. This was adopted the modern modes of extracting gold from mining which promote to gold commercially. The colonial government was accumulated much of the wealth from export of the Ghana natural resources.²

These processes, promoted the Western European capitalism in Ghana during the colonial period. But this capitalism was integrated the world economy through two forms. The first, Ghana's gold was necessary for Europe's long-distance trade with Arab and Asian countries. Second, Ghana supplies the slave labour to work on the plantation of the West Indies and America.

(c) Colonialism and Infrastructure

The colonial government improved the infrastructure, such as transportation, water supply, drainage, hydroelectric projects, public buildings, townships, schools, hospitals, prisons, communication lines, and other services. These factors strengthen and improved the Ghana economy. The colonial transportation such as road and railways helped to accelerate the import-export in the Ghana economy. The colonial government started the railways, which was to promote the development of mining

¹ Rhoda, Howard, *Colonialism and Underdevelopment in Ghana* (London: Croom Helm, 1978), pp. 7.

industry. The first railway line in Ghana constructed in the late 1890s and 1900s, from the port of Sekondi to the gold mining area of Prestea-Tarkwa and then to Obuasi the center of Ashanti Goldfields. The Department of Road was created in Ghana in 1894 and it became the Department of Transport in 1901. The road transport was used for the administrative purpose rather than trade purposes.

The table 2.1, which is given below presents the local goods and cocoa for railway traffic in percentages for the years 1900-39. The proportion of local goods carried on the railways was low, which, was from 5 to 49 percent. The proportion of cocoa was contributed 2 to 28 percentage of carriage for internal trade among different markets. The absolute amount of exported goods carried rose consistently from 1900-04 to 1935-39 but the percentage of imported goods declined sharply.

Table 2.1

Percentage of Uses of the Railway in Different Sector of the Economy

Years	Local Goods %	Cocoa %	Exports %	Import %	Total Imported and Exported Goods
1900-4	NA	NA	NA	NA	NA
1905-9	5	2	17	78	95
1910-14	33	10	12	55	67
1915-19	46	24	31	24	55
1920-24	25	28	50	20	70
1925-29	15	18	68	17	85
1930-34	19	21	65	14	79
1935-39	13	16	63	22	85

Source: Based on Raw figures from Kay, *Political Economy*

Note: NA stands for Not Available

² Ibid. p. 17.

(d) Agricultural Export in the Colonial Period

Table 2 presents the percentage of the major agricultural exports of Ghana from 1885 to 1939³. This below table shows that the major exports, apart from minerals, were cocoa, palm oil, palmkernels, rubber and timber.

Table 2.2
Percentage of Exports of Agricultural Products

Years	Total Export (\$000s)	Cocoa %	Palm oil %	Palm Kernels %	Rubber%	Timber%	Total Agricultural Exports %
1885-89	394		37	14	14	0	65
1890-94	704	0	26	13	30	5	74
1895-99	927	0	16	9	46	8	79
1900-4	908	9	23	12	23	6	73
1905-9	2293	19	5	4	13	5	46
1910-14	4233	41	3	4	5	5	58
1915-19	6682	59	1	2	1	2	65
1920-24	9300	73	0	1	0	NA	74
1925-29	12769	78	0	1	0	NA	79
1930-35	9020	60	0	0	0	1	61
1935-39	14097	47	0	0	0	1	48

Source: Ministry of Agriculture, Government of Ghana, Accra.

The products like Palm oil, palm kernels, rubber and timber had been significant percentages of Ghana's export in the early colonial period. The palm oil, palm kernel and rubber production witnessed the Ghanaian exports from 1885-89 to 1900-04. But in

³ J. Clark Leith, *Foreign Trade Regimes and Economic Development: Ghana* (New Delhi, 1974).

the later period, these products lost its significance, it was dropped sharply after 1905 and had almost disappeared by 1915 except cocoa.

The decline in palm oil exports to have been caused by a combination of poor production condition and falling prices in the world market, increased transportation costs, primitive method of purification of oil could have lead to the poor quality and lack of competitiveness of palm products.⁴

However, the demand for cocoa rose and it promoted many farmers switched their efforts from palm trees to cocoa trees. The cultivation of rubber began for reasons similar to those for the cultivation of palm oil and failed for much the same reasons. Between 1890 and 1905 Ghana was not only the largest rubber producer in the British Empire, but also fourth of the world's five leading producers.

But in later 1905 the rubber export declined sharply or nil. The decline of rubber export was due to inferior methods of processing and preparation. The rubber trees were also overexploited, as their trunks were often cut down in order to obtain rubber, rather than simply being tapped.

The timber industry was never as large during the colonial period. During the 1880s and 1890s, Ghana was importing timber from the United States because of the difficulty of obtaining it in the colony. The main reason for slow development of the timber is the transport facilities. The maximum percentage of timber export was in the year 1895-99, which was 8 percentages.

⁴ Ibid, p. 214.

(e) Foreign Trade of Ghana in Colonial Period

Table 2.3 indicates the growth of both imports and exports in Ghana growth in the import-export trade. Ghana trade was almost consistent positive balance of trade. The negative balance of trade was occurred in the years of 1885-89, 1895-99, 1900-04 and 1920-24. The trade surplus revenue was not invested in the country, but the profits were repatriated to Great Britain. This was a sign of Ghana's transition from a pre-capitalist to a peripheral capitalist economic entity during the colonial period.

The main composition of Ghana's exports was agricultural products and Gold. In the agriculture, Cocoa was the main crop for exports but the cocoa was slumped during the war years of 1917, 1918, and 1921. The gold market was very small; during 1891 to 1931 it contributed only between 0.04 percent and 1.88 percent of the total world supply.

Table 2.3

Balance of Trade in Colonial Period

Years	Imports (\$000s)	Exports (\$000s)	Balance of Visible Trade
1885-89	1614	1577	-37
1890-94	3356	3522	166
1895-99	5178	4633	-545
1900-4	9281	4539	-4742
1905-9	10333	11463	1130
1910-14	20744	21165	421
1915-19	25096	33409	8313
1920-24	47476	46502	-974
1925-29	56119	63845	7726
1930-34	29752	45100	15348
1935-39	59846	70485	10639

Source: 1886-99: Gold Coast, Blue Books; 1900-39: Kay, Political Economy, Table 18, "Imports, and the balance of visible trade, 1900-1960", pp. 325-6.

(f) Economic Crisis in the Colonial period

The economic problem such as inflation and unemployment arise in the period of post World War-I and World War-II and this was creating instability in the economy⁵. In additions to this, the political organization had stated after two world wars in Ghana. The first nationalist movement in the Ghana was United Gold Coast convention (UGCC). Educated Africans such as A.G. Grant, J.B. Danguah, R.A. Awoonor-Williams, Edward Akufo Addo and others founded the UGCC. The aim of the movement was self-government.

The governor, Sir Charles Arden-Clarke, invited Nkrumah to form a government and he had upheld to independent and self-government. The new assembly passed a motion to request independent with the British Commonwealth in August 3rd, 1956. The March 6, 1957, the 113th anniversaries of the gold coast become the independent state of Ghana. Nkrumah continued as Prime Minister.

2.2 Ghana Economy in the Post-Independence Period

2.2.1 Human Resource Development

(a) Growth Rate of Population

There have been three population Censuses in Ghana which was 1960, 1970, and 1984. On the basis of Censuses report, the growth rate of population has slightly accelerated in 1970 compared to the 1960 and which was the average annual growth rate showing a rise from 2.44 percent to 2.57 percent.

In the rural area, around 71 percent of the population in Ghana lived in rural area was 1970 and this proportion decreased to 69 percent in 1984. The absolute

⁵ Rhode Howard, *Colonialism and Underdevelopment in Ghana* (London, 1978.)

number of people in rural area was increased by 37.3 percent in the period from 1970 to 1984. In the regional-wise the most populated rural regions are the Upper West and Upper East where, in 1970 and 1984, over 90 percent of the population lived in rural areas. In Greater Accra only 17 percent of the populations were in the rural sector in 1984.

In the case of urbanization, rate of growth of urbanization has been slow in 1970 to 1984, particularly in the three largest cities (Accra, Kumasi and Sekondi-Takoradi). The population growth rate of the north accelerated above that of the south in the 1970 and early 1980 while in the 1960 the north was growing less rapidly than the south, because of a relatively higher rate of southward migration.

The average growth rates for 1970-84 hide substantial variations within the observed period. After 1973-74, many Ghanaians, mainly from the rural south and presumably mainly from poorer farm households, migrated to Nigeria and neighbouring countries. This led to substantially lower population growth from 1970 to 1983. It has been estimated that between 1975 and 1982 the total population grew at only 1.2 percent annually. In 1983, the massive repatriation of about 1.2 million Ghanaians from Nigeria led to a sudden population growth of 14.2 percent that year (Tabatabai 1986).

(b) Education

In 1970, the education budget comprised 3.9 percent of GDP and this fell to 0.85 percent by the early 1980s⁶. Despite a rapidly growing population, state expenditure in 1984 was about one-third in absolute terms of that of 1976. The effect on the schooling system was virtually catastrophic. Buildings fell into disrepair;

⁶ *Towards a New Dynamism*, Government of Ghana (Accra, 1989), p. 9.

textbooks and stationery became largely unobtainable; equipment was neither repaired, a state of affairs aggravated by the emigration of many trained teachers, along with other middle-class Ghanaians, either to neighboring countries or the US and Europe; drop-out rates rose and enrollment ratios fell so that it is now estimated that 60 percent of the adult population are illiterate (though enrollment ratios are now estimated to be rising again). Rural schools were harder hit than urban institutions and girls more affected than boys.

On the basis of regional variations the strongest educational base is found in the metropolitan areas of the Greater Accra Region and in the Upper East, Upper West and Northern Regions. Brong-Ahafo is also a relatively weak region in educational terms. The secondary schools are located exclusively in the few urban centres of these regions and the nation's three universities are located in the south of the country and the northern areas are poorly covered the educational service.

(c) Health

The health status of the rural areas is poor and the common diseases are intestinal parasites, scabies, diarrhea, bronchopneumonia, malnutrition and malaria. These are causes for poverty and underdevelopment in rural areas. This was evidenced in the period 1970-83 because the economic development had been declined and which reflected in the sharp deterioration in health of its population. Despite, disease eradication programme was organized in 1950s and 1960s. But this was failed and as a result the yaws and yellow fever reappeared in the late 1970s with major epidemics in the Northern and Upper Regions in 1977, 1981 and 1983.

The government expenditure on health as a proportion of total government expenditure increased in 1984. Despite, the expenditure on health care for the rural poor has consistently suffered due to bias in the health budget allocation. As a result only 30 percent of the rural population is estimated to have access to any health care. In addition to this, the health sector faces three major problems such as low population coverage, shortage of supplies and insufficient manpower.

2.2.2 Economic Development

(a) Growth Rate of GDP

Ghana was one of the most prosperous countries in Sub-Saharan Africa along with the highest per Capita income in the region and very low inflation. In 1955 Agriculture was the major source of income and wealth, contributing about half of GDP and supporting a much large proportion of the population.

The table 4 is given below, presents the percentage of growth rate for different economic indicators. The GDP was growing early by 4.1 percent and output of Agriculture by 4.3 percent in 1950-60. During 1955-60 the economy possess higher annual growth rates, which were 5.1 percent GDP, agriculture output by 5.7 percent and cocoa output by percent. The industrial output rose at 6.7 percent per annum during the decade, but cocoa output declined at an average annual rate of 0.2 percent. Thus the growth rate of exports fell to 0.1 percent per annum. This causes to a declined the gross domestic investment of 3.2 percent per annum and imports also fell by 1.6 percent per annum.

Table 2.4

Percentage of Growth Rate

Indicator	1950-60	1955-60	1960-70
GDP	4.1	5.1	2.1
Agriculture	4.3	5.7	3.7
Food production			1.8
Cocoa production		9.0	-0.2
Industrial production	4.6	6.3	6.7
Services		3.0	-1.4
Population	2.2		2.4
GDP per head	1.9	2.9	-0.3
Food production per head			-0.6
Gross domestic investment	8.9		-3.2
Total imports	8.9		-1.6
Total exports	3.2		0.1
Cocoa exports		5.4	-1.2

Source⁷: Sarris Alexander & Shams Hadi

In 1970-81, cereal output fell by 5 percent per annum and that of starchy staples by 3.7 percent (Tabatabai 1986). The decline in agricultural output was the result of policy choices based on incorrect signals in both factor and produce markets, resulting in domestic distortions inimical to growth, equity and poverty alleviation.

In the year 1973-83 GDP fell by 1.3 percent per annum, industrial output by – 7.0 percent, exports by 6.4 percent, and imports by 8 percent, cocoa output by 7.1 percent and food production by 2.7 percent. The annual rate of inflation rose from about 6 percent during 1965-73 to 50 percent overall in the following decade. During the period 1973-83 annual inflation rates of 53.2 percent for food prices and 46.5 percent for non-food prices were registered. This was the result of neglect of the agriculture sector in the nineteen-sixties (Bequle 1983; Tabatabai 1986). Ghana's post-independence economic strategy emphasized rapid industrialization by State-

⁷ Sarris Alexander & Shams Hadi, *Ghana under Structural Adjustment: The Impact on Agriculture and the rural poor*, (New York: IFAD, 1983), pp.1-46.

Owned Enterprises (SOEs) at the expense of agriculture. This resulted in lower export production and export earnings. Industrialization strategy opted for self-reliance, and established import-substitution industries behind highly protective trade and non-trade barriers. This can be shown in the below table 2.5.

Table 2.5

Growth of Different Sectors

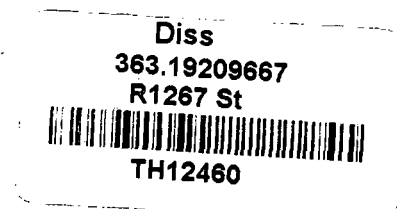
Item	1965-73	1973-83
1. Population	2.2	3.1
2. Domestic production		
(a) GDP	3.4	-1.3
(b) GDP per capita	1.2	-4.4
(c) Agriculture	4.5	0
(d) Industry	4.3	-7.0
(e) Services	1.1	-0.3
3. Merchandise trade		
(a) Exports	3.5	-6.4
(b) Imports	-3.3	-8.0
(c) Terms of trade		-6.5
4. Cocoa production	-1.2	-7.1
5. Food sector		
(a) Food production	2.0	-2.7
(b) Food production per capita	-0.3	-5.9
(c) Calorie availability per capita	1.3	-3.9
(i) From cereals	3.8	-3.3
(ii) From roots and tubers	-2.0	-1.8
(d) Protein availability per capita	4.1	-4.0
6. Inflation		
(a) Consumer prices	6.3	49.9
(b) Food (local and imported) prices	6.6	53.2
(c) Non-food prices	5.8	46.5

Source⁸: Tabatabai

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⁸ Hamid Tabatabai, "Economic Decline, Access to Food and Structural Adjustment in Ghana" in Sarris Alexander & Shams Hadi, *Ghana under Structural Adjustment: The Impact on Agriculture and the rural poor* (New York: IFAD, 1991), pp. 2-54.



(b) Role of Agriculture

The agricultural sector consists of livestock, fisheries and forestry, which accounted for 55 percent of GDP in 1984. The agricultural sector, had been showing negative growth rates up to 1983. This was due to severe drought and followed by numerous bush fires. But later 1983, the agricultural GDP achieved a positive growth, which was 10.2 percent in 1984, 5.1 percent in 1985, and 5.3 percent in 1986. Among agricultural products the cereals and root crops account for 62 percent of agricultural GDP, cocoa for about 18 percent. The cereals and root crops contribute 62 per cent, cocoa contribute 18 per cent, forestry for 10 per cent, livestock for 7 per cent, and fishing for 3 per cent of agricultural GDP.

Ghana's agricultural policy has been a long History so far. During 1948, the Waston Commission Report, which investigated the causes of urban riots, while the life of the colony depended in export crops food supply⁹, there was much more interest displayed in export crops, especially Cocoa, at the expense of crops grown for home consumption. By 1950, Gold coast had an agricultural policy, which focused export crops, neglected food production but encouraged food imports and neglected the needs of the countryside while financing urban development by extracting rural-based wealth.

First post-colonial Government insisted polices of the urban development and large-scale farms. During the period of nineteen-sixties, large-scale agriculture had proved failure. Notwithstanding, the government shifted its emphasis to promoting state and cooperative agriculture and paid relatively tiny attention to small-scale farming. As

⁹ Sarris Alexander & Shams Hadi, *Ghana under Structural Adjustment: The Impact on Agriculture and the rural poor* (New York: IFAD, 1991), p. 20.

the matter of fact, the Ministry of Agriculture (MOA) had responsibility for helping small-scale farmers. After sometime, especially, between 1961 and 1965 the development expenditure went to the social sector even though its contribution to production was less than 1 percent. The policy was to deal with urban employment and avoid political dependence on small-scale private farmers. During the period (1966-81), all government tended to favor large-scale, capital-intensive modes of agriculture production over small-scale farm units. During this period all regimes tended to give importance to industrialization with higher priority.

(c) Role of Industry in Ghana Economy

The industry showed higher growth than the other sectors, which consist of sectors like mining, manufacturing, electricity, water, and construction. The GDP average annual growth in industry during 1984-1986 was 11.4 percent per year; it fell somewhat in 1987-1989 to 9.9 percent. The mining sector such as gold is the biggest contribution to Ghana's foreign exchange earnings. The gold had been raised by 52 percent by 1989 from its 1983 low but was still about 66 percent of 1970 levels; diamond production continued to decline and in 1989 was only 10 percent of its 1970 level. Ashanti Goldfields Corporation (AGC), 55 percent government owned has borrowed abroad to make large new investments and has greatly increased output, 31 percent during 1987- 1989 alone. In 1989 it earned 20 percent of Ghana's foreign exchange. Some fifty new gold prospecting licenses have been issued, and new mining companies are investing for the first time since the 1920s. The State Gold Mining Corporation (SGMC), with no capital, is seeking foreign private investment partners.

The Ghana government also decided to legalize gold mining by an estimated 150,000 individual Ghanaians. In less than a year it earned tax revenues of \$6.7 million.¹⁰

The two private sectors are the most important for Ghana economy, which are manufacturing and construction. These sectors were in long-term depression prior to 1984-1987, while construction stagnated during 1984-1986 and grew 15.2 percent in 1987. The table 2.6 shows that the share of manufacturing's Ghana economy. The annual growth rate of manufacturing value added was 0.7 per cent in 1980-87. The share of manufacturing value added in GDP was 9.9 per cent, the manufacturing value added in US Dollars was 501 and the per capita value added for manufacturing was 37.

Table 2.6

Industrialization in Ghana in 1987

Manufacturing Value Added (Million US Dollars)	501
Share of Manufacturing Value Added in GDP	9.9
Manufacturing Value Added Per Capita (US Dollar)	37
Annual Rate of Growth of Manufacturing Value Added (1980-87)	0.7

Source: World Bank Report, Washington., 1990.

(d) Nutrition and Poverty in Ghana

The nutritional state of Ghanaians is generally low and was considerably aggravated by 1982-age children, and pregnant and lactating women.¹¹ In 1986, 36.1 percent of children fell below 80 percent of the weight-for-age standard. In the regional wise the incidence of malnutrition higher in the Northern and Upper Regions. This nutritional problem is due to ecological variation from region to region. For example,

¹⁰ Charles E. Alberti, "Ghana's Educational Program: A Model for African Countries?", *Journal of the Midwest History of Education Society*, no. 8, 1989, p.12.

¹¹ Republic of Ghana, *Ghana Living Standard Survey: Preliminary Results 1988*, Accra, Statistical Service, 1988, p.3.

the heavy dependence on starchy roots contributes to a high incidence of Kwashiorkor in the forest zones of southern Ghana. In the Northern Region, where marasmus is more common, calorie intake of protein. Although the Northern and Upper they are nevertheless nutritionally deficient as a result of having to sell food items to raise cash for non-food needs. Other nutritional problems are goiter from iodine deficiency in the Upper, Northern and Mampong Ashanti areas, and vitamin A deficiency in these areas and in Axiom and the Western Region.

The nutrition rehabilitation is an important element in the work of the Nutrition and 11 nutrition rehabilitation centre in the country. These are located in four in the Greater Accra Region, three in the Upper Regions, and one each in the Eastern, Volta, Ashanti and Upper Regions. Despite problem of deficiency has remained difficult to resolve. This is due to pricing policies which, lead to low food production because producers have facing the problem of poor price, higher input price, lack of trading facilities, lack of infrastructure and lack of storage facilities.

The absolute poverty defined as 'that income level below which a minimal nutritionally adequate diet plus essential non-food requirements is not affordable' (Tabatabai 1986). The number of rural people below poverty line in all region in entire Ghana as shown in the below table xx from this table; 80.3 percent of all smallholders, or 1.95 million rural people, were below the poverty line in 1970. It represented 43.8 percent of all holdings in Ghana and 43.3 percent of all smallholdings were below the poverty line and also represented 67.6 percent of all holdings.

In terms of number of people 6.4 million rural people were estimated to be below the poverty line or 67.3 percent of the total farming population. This figure was drastic increase from 1970 and it influenced by the large number of people were drawn to rural areas through the repatriation from Nigeria and the 1983 drought. In addition to this, rural household income was fall in 1984 due to drastic fall in prices. In 1986, it was estimated that 66.8 percent of all smallholders or 50.6 percent of all farm holders, had household incomes below the poverty line.

In terms of number of people 3.8 million rural people or 54 percent of the total farm population, were estimated in the below the poverty line. This was doubling from 1970 meanwhile the total rural population was increased by 43 per cent over the same period.

In terms of regional patterns, the increases in poverty 1970 and 1986 were highest in the Northern Region where the number of farmers below the poverty line increased 4.5 times. This was followed by the Western, Ashanti and Brong-Ahafo Regions, where the number of those the poverty line increased 2.2, 2.3, and 2.1 times respectively. These latter regions absorbed most of the migrant labour force from the north. In some regions, notably the central Region, the number of rural people below the poverty line seems to have stayed roughly unchanged. In terms of numbers of the poor, there are more than 200000 rural people below the poverty line in each of the regions except the Greater Accra and Upper West Regions.

2.2.4 Economic crisis

The main causes for Ghana's economic crisis as follows¹²; the important feature of the Ghanaian economy is the divided the southern forest zone with its more abundant rainfall and resources, fertile soils and relatively developed infrastructure, and the northern savanna, covering about 60 percent of the country, with low rainfall, few resources and a poor infrastructure. Since colonial period, the north has remained an area producing largely subsistence crops, which are undervalued and under priced in the national market.

It is generally thought that northern underdevelopment is not only due to the severe physical environment or lack of resources, but also it is a by-product of the need for northern labour because of export-oriented mining and cocoa interests of the south. The Upper East region remains one of the poorest, the most rural and the least industrialized region in Ghana. It has the nation's highest average population density, as well, outside the capital region of Greater Accra 87 persons per square kilometer. Densities in the cultivated areas of Bawku district, in which the study village of Zorse is located, each 270 persons per square kilometer.

The external shocks-severe droughts of the early 1980s, expulsion of nearly one million Ghanaians from Nigeria in 1983 and plummeting cocoa prices. Due to severe drought, bushfires and the expulsion of nearly 1 million Ghanaians from Nigeria in 1983, from which severe strain on an already critical food and unemployment situation and irritated the crisis.

¹² Joan M Nelson, ed., *Economic Crisis and Policy Choice: The Politics of Adjustment in the Third World* (Princeton, 1990), pp.2-25.

The failure of the development strategies pursued since independence, which focused on large-scale state –owned enterprise dependent on imported raw materials and heavily protected by the state. Further the falling investment in the private and public sectors along with falling output and accelerating inflation. The inflation rate increased from 9 percent per annum in 1970 to 122 percent in 1983. Stagnation or decline characterized almost all sectors of the economy, while the population increased at a faster rate.

The social sectors impact was just as severe, with deterioration in health and educational standards and a reduction in real income per head. The result of the economic decline was a general impoverishment of the nation as a whole, with about 50 percent of urban households and 65-75 percent of rural households living below the poverty line by the early 1980s.

The environment degradation, much of the West African savanna, including Northeast Ghana, has been affected by drought conditions since the late 1960s.¹³ In Bawku District, the evidence does not have to indicate a long-term trend of declining rainfall, but rather a periodically occurring of drought. In the 1980s the major problem for farmers was increasing irregularity of rainfall. Sheet and gully erosion is widespread in the intensively farmed areas around Bawku. The end of the 1960s silted up many of the dams and reservoirs.

Against this background, the Government failed to provide adequate incentives for producers in the primary product sector. This was compounded by the failure to apply normal commercial and financial disciplines to the large number of new

¹³ Ibid, p. 125.

industries set up in the public sector, which is believed to have contributed to corruption and embezzlement (Pickett and Singer, 1990).¹⁴ As a result, the growth of output had come to a halt and then turned negative beginning from 1975 till 1982, while real per capita income declined by more than 30 percent and the overall balances of payments deficit widened leading to a depletion of foreign exchange reserves and an accumulation of external payments of deficits of about US\$580 million by the end of 1982 (IMF, 1991).¹⁵

In this economic situation, the government of the Provincial National Defence Council (PNDC) adopted in 1983 an IMF/World Bank sponsored structural adjustment programme aimed at halting the economic decline and restricting the economy to foster growth and development.

¹⁴ Pickett and H.N. Singer, *Towards Economic Recovery in Sub-Saharan Africa: Essays in Human of Robert Gardiner* (London: Routeledge, 1990), pp. 1-23.

¹⁵ I. Kapur, M.T. Hadijimichael, P. Hilbers and J. Schiff, *Ghana: Adjustment and growth* (Washington, D.C.: IMF, 1991), p.12.

Chapter-III

FOOD SECURITY OF GHANA

Chapter III

Food Security in Ghana

3.1 Definition of Food Security

The concept of food security has been considered mostly in making available minimum quantity of food grains to the entire population. Food security as defined “access by all people at all times to enough food for an active, healthy life¹”. The food security not only for access and also for “ensuring that all people at all times have both physical and economic access to basic food they need.”² Staatz (1990) defined food security as “the ability to assure, on a long term basis, that the food system provides the total population access to a timely, reliable and nutritionally adequate supply of food. In this above sense, the concept of food security undergoes a change with the stage of development. From this food security is the feature of; (1) the basic need for human survival is to make an adequate quantity of cereals available to all (2) the food security as the adequate availability of cereals, pulses, milk, milk products vegetables and fruits, fish, eggs and meat.”³

3.2 Food Security at the National level

The food security at national level through

- (i) Land reforms/redistribution

¹ World Development Report (1986), p. 24.

² Food and Agriculture Organization, 1983, pp.1-23.

³ Ruddar Datt, and K. P.M Sundharam., *Indian Economy* (Chand & Company Ltd., New Delhi, 2005), p.497.

- (ii) Improvements of agricultural sector.
- (iii) Policies to increase food production and attaining self-sufficiency in food, e.g. pricing policies, and other incentives, infrastructure improvements, training programmes, appropriate technology.
- (iv) Policies to deal with Transnational Corporations in cash crop production.
- (v) Policies on food imports.
- (vi) Review of aid programmes.

3.2 (a) Food Security and Redistribution of Land

The total land area of Ghana is 23.9 million ha. Sixty percent of this geographical area is considered available for cultivation, which is 13.58 million ha. Among this 7 per cent is cultivated for tree crops and five per cent for annual (arable) crops. Therefore only 50 per cent of land is cultivated for food production. These different uses of land can be shown below in the table 3.1.

Table 3.1.

Different Use of Land in Ghana

Land Use	Area (Thousand Km ²)	Percentage of Total
Forest reserves	26	11
Wildlife	12	5
Unreserved forests	5	2
Savannah woodland	71	30
Tree crops	17	7
Annual (arable)	12	5
Unimproved pasture	36	15
Bush-fallow and others uses	60	25
Total	239	100

Source: Medium-term Agricultural Development Plan (MTADP), Policy Planning, Monitoring and Evaluation Department (PPMED), Ministry of Agriculture (1989), Accra.

(b) Food Security and Production of Crops

Food security at the national level denotes the ability of the nation to provide food its inhabitants adequately from its own resources at all times. This includes both domestic food production and food can be purchased or imported form the world market. Ghana can feed its population adequately from its own production and the gap or surplus has been growing over time.

The tables 3.2 indicate the demand and production of cereals of Ghana which is given in the continuing page. From this the demand and production for food had been increased since 1970s. But the increasing the production of food not accompanied to the demand for food. Therefore the consumption of cereals shows the deficit, except in the year of 1970, 1971 and 1974. The reason for the deficit in cereals consumption is growth of population.

Table 3.2

Cereal Production-Demand, 1970-88 (000 metric tons)

Year	Pop (Millions)	Demand					Production					Production for Consumption	Surplus (+) Deficit (-)	Surplus Deficit as % of Demand
		Wheat	Maize	Rice	Sorghum /Millet	Total	Wheat	Maize	Rice	Sorghum /Millet	Total			
1970	8.56	51.4	291.0	68.5	136.9	547.8	0	482.0	49.0	327.0	858.0	605.5	57.7	10.5
1971	8.79	52.7	298.9	70.3	140.6	562.6	0	465.0	55.0	303.0	823.0	581.6	19.0	3.4
1972	9.02	54.1	306.7	72.2	144.3	577.3	0	402.0	70.0	259.0	724.0	518.7	-58.6	-10.2
1973	9.26	55.6	314.8	74.1	148.2	592.6	0	427.0	62.0	276.0	764.0	541.7	-50.9	-8.6
1974	9.51	57.1	323.3	76.1	152.2	608.6	0	486.0	73.0	331.0	890.0	630.3	21.7	3.6
1975	9.63	57.8	327.4	77.0	154.1	616.3	0	343.4	69.8	257.0	670.2	476.1	-140.2	-22.7
1976	9.75	58.5	331.5	78.0	156	624.0	0	286.0	69.6	333.4	689.0	489.3	-134.7	-21.6
1977	9.85	59.1	334.9	78.8	157.6	630.4	0	312.2	62.9	272.6	647.7	459.7	-170.7	-27.1
1978	9.99	59.9	339.7	79.9	159.8	639.3	0	269.3	60.8	258.2	588.3	417.9	-221.4	-34.6
1979	10.1	60.7	344.1	81.0	161.9	647.7	0	308.6	63.0	307.2	678.8	481.5	-166.2	-25.7
1980	10.2	61.4	348.2	81.9	163.8	655.3	0	354.0	64.1	292.6	710.7	503.9	-151.4	23.1
1981	10.4	62.2	352.6	83.0	165.9	663.7	0	334.2	43.6	301.2	679.0	479.7	-184.0	-27.7
1982	10.50	63.0	357.0	84.0	168.0	672.0	0	264.3	37.1	246.3	547.7	387.1	-284.9	-42.4
1983	12	71.9	407.7	95.9	191.8	767.3	0	140.8	26.9	220.2	387.9	274.2	-493.1	-64.3
1984	12.3	73.7	417.9	98.3	196.6	786.5	0	574.4	76.0	315.0	965.4	683.4	-103.1	-13.1
1985	12.60	75.6	428.4	101	201.6	806.4	0	395.0	80.0	305.0	780.0	554.0	-252.4	-31.3
1986	12.9	77.5	439.3	103	206.7	826.9	0	576.0	62.7	290.8	936.7	662.0	-164.9	-19.9
1987	13.2	79.4	450.2	106	211.8	847.3	0	452.0	62.5	298.0	812.5	575.0	-272.3	-32.1
1988	13.6	75.79	456.6	89.0	213.5	824.6	0	751.0	95.0	300.0	1146.0	821.2	-3.4	-0.04

Source: Ministry of Agriculture Giri, R, S. Oku, and K. Fukai. 1987. 'Agricultural sector Survey 1986'. Accra: Ministry of Agriculture Mimeographed.

The major production of cereals like maize, rice, millet and sorghum had increased in 1980s and 1990s but in 1970s was declining trend. The growth rate of major cereals is rice, which is 6.2 per cent in 1980s and 8 per cent in 1990s. The production of cereals, roots, tubers and plantain are increased considerably in 1990s compared with any other decades and this can be shown below in the below table 3.3.

Table 3.3
Production of Major Crops (000 mt)

Crops	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	Annual Growth Rates		
							1970s	1980s	1990s
Cereals	812	659	755	1,053	1,394	1,754	-1.9	3.9	2.9
Maize	452	304	334	573	823	1,014	-3.3	7.2	2.3
Rice	62	69	50	81	125	225	1.1	6.2	8
Millet	127	134	224	217	188	174	0.6	-0.3	-0.8
Sorghum	171	152	147	182	258	341	-1.1	2.4	3.2
Roots/Tubers	6,646	4,531	5,206	6,295	9,579	13,102	-3.2	2.1	3.7
Cassava	2,836	2,192	2,609	3,059	5,216	7,148	-2.3	1.7	3.7
Yam	791	569	488	1,039	2,052	2,552	-2.8	1.7	3.7
Cocoyam	1,210	777	1,205	1,046	1,140	1,555	-3.6	-1.3	3.6
Plantain	1,809	993	904	1,151	1,171	1,847	-0.9	2.7	5.8

Source: compiled from Ministry of Food and Agriculture, Accra and Samuel and V. K. Nyanteng, 'The Role of Agriculture in Food Security in Ghana', Agriculture Project International Conference, Rome, Agricultural and Development Economics Division (ESA), Food and Agriculture Organization of the United Nations, 2003.

From the table 3.3, the production of all food crops and marketing crops decreased during 1980 to 1983 particularly maize yield reduced up to 40 per cent. This reduction was due to catastrophic drought. But after 1984 to 1989 normal

rains was started and as a result increase the maize production 40 per cent. Similarly the other crops such as root crops and plantain more than tripled from 3 million mt to over 10 million mt. The rice production was fluctuated and its production declined in 1989. However, the increasing production was unable to absorb the markets prices because the market price covered the below production

The Ministry of Agriculture (MOA) was responsible for increasing the agricultural production through new technology, which mainly for maize, and to a lesser extent for rice and cowpeas. The Grains Development Project (1979) with assistance from the Canadian International Development Agency (CIDA) recently undertook a survey of adoption of new maize production.

Table 3.4
Crop Area Planted and Production for Major Cereal and Starch Crops, 1977-89 (000 mt)

Crops	Year	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Cereals	Area	773	704	834	822	804	788	743	1275	964	881.2	1126.9	1046	1166.1
	Production	648	588	679	711	679	548	388	965	780	866.7	1056.4	1146	1217.3
Maize	Area	291	258	314	320	316	276	280	724	405	472.1	548.3	540.0	567.0
	Production	312	269	308	354	334	264	141	574	395	559.1	597.7	751.0	748.6
Rice	Area	61	59	61	65	46	44	37	69	87	76.1	72.0	51.8	71.6
	Production	63	61	63	64	44	37	27	76	80	69.6	80.7	95.0	73.7
Sorghum/ Millet	Area	421	388	459	436	443	468	427	482	472	333.0	506.6	454.2	528.0
	Production	273	258	307	293	301	246	230	315	305	238.0	378.0	300.0	395.0
Starch Crops	Area	609	673	664	796	767	658	603	2838	837	963.3	960.2	782.5	1003.0
	Production	4025	4434	4353	5199	4991	3879	3097	10094	5385	6012.0	6000.6	618.5	6208.4
Cassava	Area	257	283	280	386	337	275	242	814	356	387.2	389.5	353.5	415.0
	Production	2119	2334	2320	2896	2721	1986	1375	4065	3075	2876.2	2725.8	3300.0	3327.2
Yam	Area	86	94	105	95	98	79	75	223	111	179.0	204.4	168.3	217.0
	Production	497	517	550	523	463	374	354	725	560	1048.1	1185.4	1200.0	782.2
Cocoyam	Area	135	144	146	159	207	167	145	978	200	206.6	196.4	141.3	207.0
	Production	633	681	699	848	972	756	613	2835	900	1005.2	1011.8	1115.5	1063.0
Plantain	Area	131	152	133	156	135	137	141	823	170	190.8	169.9	119.4	164.0
	Production	776	902	784	931	835	763	755	2469	850	10875.5	1077.6	1200.0	1036.0

Source: Policy Planning, Monitoring and Evaluation Department (PPMED), Ministry of Agriculture, Accra.

(c) Food Securities and Livestock Economy

The agricultural sector consists of livestock, fisheries and forestry. The livestock sector contributed about 9 percent of agricultural GDP between 1977 and 1987⁴. This can be shown below in the table 3.5. The meat was the predominant livestock product, amounting to about 450000 mt in 1986, of which 35 percent was beef, 34 percent poultry, and then remainder mutton and goat. Egg production made a significant contribution (58 million in 1986) but the dairy industry is undeveloped. The bush meat such as game, rabbits, snails, etc amounts to about 20,000 mt a year. Domestic production of meat closely approximates national consumption, but there was large gap between supply and demand for animal products.

The West African shorthorn is the predominant cattle breed in Ghana and, together with its crosses, the Sanys, accounts for about 80 percent of the national cattle herd. Three-quarters of all cattle are in the Upper Regions (East and West) and the Northern Regions. Sheep and goats are more equally distributed throughout the country. The sheep and goats is the main source of domestic meat supply for the rural farming community. They are mostly kept in small units of one to ten. Most sheep and goats are of the West African dwarf breeds with not more than 10 percent of crosses with sahelian sheep. The pig population is consistent growth during the 1980s and as a result increasing acceptability of pork. At present poultry farming is the most developed and popular animal industry in Ghana.

⁴ Jon Kraus, "The Political Economy of Agrarian Regression in Ghana", in Stephen Cummins, Michael Lofchie, and Rhys Payne, eds., *Africa's Agrarian Crisis* (Boulder: Lynne Rienner, Publisher, 1986), pp. 3-43.

The Government Animal Health and Production Department, formerly the Ghana Veterinary Service, has been one of the most effective in West Africa. However, over the last ten years it has been deteriorating. In Consequence to the serious animal diseases have occurred including rinderpest, anthrax, African horse sickness, contagious pleura, pneumonia, rabies and Newcastle disease, which have caused considerable losses in livestock. The generally low productivity of sheep and goats stems from a combination of poor nutrition, especially in the dry seasons, plus endemic diseases such as pneumonia, worms and other small ruminant diseases. Private companies are now allowed to procure, distribute and sell veterinary drugs and chemicals, including anthelmintics, coccidosstats, disinfectants, feed additives, water-soluble powders, dressings and acaricides.

Table 3.5

Number of Animals

Animal/ Year	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Cattle	823661	35912	857004	876841	903724	1215059	1002015	1077843	1064778	1134870	116977
Sheep	1129850	1107945	1314664	1449418	1433140	1482274	1749615	1977336	1987284	1814242	1986522
Goats	874200	980742	1863910	1383889	1183599	1215059	1536179	1678991	1685427	1632576	1900876
Pigs	151007	165959	185421	224407	259899	169945	316626	487493	413112	468653	398949
Dogs	162148	171963	146326	161466	159899	162688	181368	218515	214521	187968	261438
Cats	60708	62553	79067	80600	81835	92545	82912	1005558	111490	78715	122652
Poultry	4580089	6281967	7269567	7532544	6056017	4874	5949491	5893123	10024496	6418709	8214086
Horses	2990	2309	2451	2578	2559	2490	2741	2176	2514	2211	2136
Donkeys	6341	6823	4844	5017	6320	7380	6746	9366	10814	13182	13595
Rabbits	NA	NA	NA	NA	51939	60551	45277	47150	85987	90607	82569

Source: Department of Animal Health and Production, Ministry of Agriculture (1987) and agriculture census (1984). Food and Agriculture Organization/World Bank Cooperative Programme (1987) a. Ghana Forestry Project. Report of Preparation Mission Rome, Food and Agriculture Organization, Mimeographed.

(d) Food Security and Fish Economy

The fishing sub sector in Ghana is both inland and marine, with inland fishing mainly concentrated on Lake Volta. A smaller and less well-developed level of fish production comes from brackish and freshwater aquaculture and fish farming. The marine fisheries can be sub-divided into three; the artisanal, canoe fishery which operates from approximately 270 landing bleachers; the inshore vessels and small trawlers, which fish between the 25-fathom and 100-fathom lines; and the distant-water and tuna vessels which operate from the main ports located on the coast.

Very little research has been done on the fishery sector; the main source of data is the Fisheries Department of (MOA), and available information is in the form of general fish catches with statistics covering mainly canoes and motor vessels. The Fisheries Department collects data on fish catches by sampling canoes in a few places along the coast, usually four to six fishing villages, and then extrapolating this data to cover the whole coast.

(e) Food Security and Exports of Agricultural Products

The agricultural crop like cocoa provided about three-fifths of total export earning that the foreign reserve situation was very healthy as a result of booming cocoa export and an abundant supply of labour. High growth in the output of the major export crop, cocoa, provided the basis for rising investment via increased foreign exchange availability. With export earning rising at 3.2 percent per annum during the 1950s both imports and gross domestic investment grew at 8.9 percent per annum during the decade.

But in 1980s the agricultural crops increased inefficient because of mismanagements and wrong policy of government policies. Agricultural producers, especially smallholder, had in particular non-food crops, became heavily taxed. For example, cocoa farmers in 1983 received only 21 percent (in real terms) of the producer price in 1970, cotton farmers in 1982 received 9 percent of 1970 prices, while tobacco farmers in 1984 received 38 percent. Because of high elasticity of production for these commodities, by 1983 cotton production was down to 25 percent of its average in 1975-77, while tobacco production was 20 percent of its average level in 1974-76. Cocoa producers responded by smuggling output into neighbouring countries.

As a result in 1982, the per capita income had fallen by 30 percent due to fall in export earnings. Thus, the production base of the economy was generally deteriorated. These processes further eroded the economy through emigration of skilled labour, lack of private capital formation as a result of widespread dissaving, and deterioration of the national infrastructure. Consequently, production, savings and investment declined.

Meanwhile, the import volumes and retailing activities increased substantially, leading to widespread or underground production and marketing activities. External factors worsened the economic situation. The collapse of primary commodity prices for cocoa, coffee and timber in particular, sharp rises in world oil price shocks in 1973 and 1979 played an important role in the nation's economic decline. The external debt, at the end of 1982, stood at 105.7 percent of GDP (translated to US dollars at parallel market rates). The deterioration was so severe that in April 1983, against considerable internal opposition, the Government adopted an Economic Recovery Programme (ERP), through the structural adjustment programmes with the guidance of IMF and

World Bank⁵. But after the structural adjustment the agricultural export in Ghana has been sharply declined in terms of US Dollar. This can be shown in the below table 3.6.

Table 3.6

The Value of Agricultural Exports

Year	Millions of US Dollars (Current Prices)
1980	744
1988	482
1989	426
1990	413
1991	369
1992	319
1993	302
1994	358
1995	393
1996	638
1997	616

Source: Ministry of Agriculture, Government of Ghana, Accra

(f) Food Security and Import of Agricultural Products

Ghana has been importing a large variety of food products such as live animal and cereals. The data indicated that food and live animal imports in the 1990s have approximately doubled which is 17 percent. The import of food and live animals in terms of US,dollar is shown below in the table 3.7. From this, the import and or export of live animals and cereals value has been fluctuated and increased. This was due to

⁵ D. Rothchild, *The Political Economy of Recovery* (London Lynne Rienner Publishers and Boulder, 1991), p. 5.

fluctuations in the world price of cocoa and its prices swing widely from year to year. The ability of cereal and other food imports will depend on the growth of foreign exchange earning to the growth of the food import bill.

Table 3.7
Value of Imports

Year	Imports of food and live animals (c mill)	Imports of food and live animals (US\$ mill. at off. Exchange rate)	Value of cereal imports (US\$ mill.)	Value of total merchandise imports (US\$ mill.)	Proportion of food imports to total imports (%)	Value of total merchandise exports f.o.b. (US\$ Mill)	Proportion of food imports to total merchandise exports (%)
1975	105.0	91.3	29.8	791	11.5	728	1.5
1976	119	103.3	15.1	862	12.0	779	12.0
1977	95.6	83.1	14.6	1038	8.0	891	8.0
1978	144	95.0	44.8	1114	8.5	865	8.5
1979	178	64.9	18.3	882	7.4	1066	7.4
1980	242	87.8	40.7	972	9.0	1104	9.0
1981	247	89.9	32.8	1021	8.8	711	8.8
1982	276	100.5	19.9	631	15.9	641	15.9
1983	1220	353.7	138.4	539	65.6	439	65.6
1984	NA	123.0	26.4	681	18.1	566	18.1
1985	NA	123.0	16	727	16.9	632	16.9
1986	NA	133.0	10.1	780	17.1	773	17.1
1987	NA	NA	37.7	NA	NA	NA	NA

Source: World Bank 1987 and Republic of Ghana 1984.

The data on the imports of various types of cereals in the period 1975 to 87 shows below in the table 3.8. From this table, concluded that the import of cereals had been increased from the period of 1975 to 1987. In the case of wheat import had been declined from 163 million tones in 1975 to only 80 million tones in 1987, which is more than 50 per cent of wheat imports had been declined. But other products have

increasing trend which Maize increased 150 per cent and rice increased 57 per cent in the same period.

Table 3.8
Cereal of Imports

Year	Domestic surplus +Deficit-	Commercial Imports				Cereal Imports Under food aid
		Wheat	Maize	Rice	Total	
1975	-140.2	163.7	0.8	0.7	165.7	NA
1976	-134.7	89	10.6	4.1	106.4	NA
1977	-170.7	97.6	0.0	9.0	112.6	NA
1978	-221.4	169.6	0.0	45.4	245.6	NA
1979	-166.2	92.3	0.1	2.6	95.7	NA
1980	-151.4	31.7	12.6	65.9	154.1	NA
1981	-184.0	70.0	63.9	16.0	160.6	80.3
1982	-284.9	44.8	10.0	30.5	105.6	68.8
1983	-493.1	60.1	61.8	32.1	175.4	108.3
1984	-103.1	25.0	49.3	50.4	158.3	102.3
1985	-252.4	71.5	0.0	20.6	105.8	97.7
1986	-164.9	51.3	0.0	9.5	87.3	106.3
1987	-272.3	80.0	120.0	40.0	266.7	NA

Source: World Bank Report 1987.

The gap in the domestic food production is filled with help of imports food grains such as cereals (rice and maize), edible oils, onions, canned tomato puree, fresh and canned red meats, poultry parts, frozen and canned fish, etc. The quantity of beef import sharply declined but the quantity of imported pig meat, turkey and poultry meat

increased but the poultry (Chicken) meat exceeded beef since the mid 1990s. The importations of meat and poultry produces are usually banned from sources with contagious diseases outbreak. The import of meat has shown below in the table 3.9. In all meat import is increase 2 times in 1990s.

Table 3.9
Meat Imports (Mt)

Year	Beef	Chicken	Turkey	Pig meat	Others
1992	16,097	2,314	2,146	1,404	582
1993	19,123	3,085	1,833	2,048	481
1994	7,336	1,848	954	1,661	235
1995	8,241	3,160	2,268	2,142	190
1996	3,384	3,682	2,780	1,801	191
1997	1,687	5,891	3,048	741	363
1998	1,442	7,291	2,241	758	1,215
1999	2,568	10,766	1,491	772	696
2000	870	9,160	386	358	420
2001	154	30,261	74	1,661	560
2002	1,064	19,986	766	7,738	1,419

Source: Livestock Planning and Information Unit MOFA, Accra.

The total meat imported per capita in the 1990s declined in a fluctuating fashion from 1.47 kg in 1992 to 0.89 kg in 1999, a decline of 39.5% or at a simple rate of 5.6% per annum. This is in the table 3.10 and from this table the average total volume of meat imported was 1 Kg per capita in the 1990s. Based on the estimate that the meat supplied from the domestic sources formed 30% of consumption, the per capita meat consumed annually in the 1990s was lower than 1.5 kg. The total meat supply was therefore not adequate to provide the protein component in the diets of Ghanaians.

Table 3.10**Per capita Availability of Imported Meat**

Year	Beef	Chicken	Turkey	Pig meat	Other Meats	Total
1992	1.05	0.15	0.14	0.09	0.04	1.47
1993	1.22	0.20	0.12	0.13	0.03	1.70
1994	0.46	0.12	0.06	0.10	0.02	0.76
1995	0.50	0.19	0.14	0.13	0.01	0.97
1996	0.20	0.22	0.16	0.11	0.01	0.70
1997	0.10	0.34	0.18	0.04	0.02	0.68
1998	0.08	0.41	0.13	0.04	0.07	0.73
1999	0.14	0.59	0.08	0.04	0.04	0.89

Source: Livestock Planning and Information Unit, MOFA, Accra.

(g) Food Security and Food Distribution Corporation in Ghana

The severe drought and associated with food shortages of 1983, the Government role to emphasis the bulk of storage of grains as part of a food security policy. As a result the Ghana Government established Ghana Food Distribution Corporation. The GFDC function is to purchase, export and distribute foods through a chain of grocery shops. At present, GFDC is primarily involved in food procurement and sale and also imports of grains. GFDC also undertakes price support programmes for the Government, but it remains ineffective.

GFDC maintaining buffer stocks and maintains a network of stores with a capacity of 1, 50,000 mt in local assembly points, warehouses and collection points. Storage facilities are in poor condition and pest losses in some stores are reportedly

high. Its maize purchases between 1982 and 1985 rose from 5000 metric ton (mt) to 14000 metric ton (mt). This is only 2-4 percent of domestic maize production. GFDC claims that its market share in maize is some 16-18 percent of the marketed surplus and its objection is to reach a total volume of 20 percent of marketed surplus to provide an effective price support programme. In 1989 GFDC had storage capacity in silos of 9600 metric ton (mt) and warehousing capacity in its own and rented property of 34900 metric ton (mt).

Grains Warehousing Company (GWC) was also formed and its main function is to store the cereals such as maize, rice, wheat and sorghum. But in recent time GWC entered into grain purchase market. It now complements GFDC, through cooperatives and buying agents. GWC has storage facilities of up to 20,000 mt in five warehouses and is planning to open silos in maize-growing areas in nine locations in the Ashanti and Brong-Ahafo Regions and in the Afram Plains (Eastern Region).

The other institution like Ghana National Procurement Agency (GNPA) was formed and its role is import and wholesale of grains such as wheat, rice, sugar, maize and vegetable oils.

Meat Marketing Board (MMB) is another institution and its function is to distribute the meat. MMB's annual sales declined from an average of 4000 mt in 1974 to some 1700 mt in 1984. Erratic supplies and high prices linked to poor management resulted in retailers seeking alternative sources of supply. In the 1980s MMB distributes 6 percent of pig production, 4 percent of cattle and 1 percent of small stock and in the second half of the 1980s it reported total sales of cedi 38.3 million, which yielded a gross margin of cedi 15.7 million. MMB faces many institutional difficulties in meeting its

mandate of importing and distributing meat. In 1986, cattle imports were discontinued and MMB had to reorient its operations to domestic trading.

(h) Food Security and Agricultural Policy

In January 1986, new agriculture policy and Strategy was formulated and it ensures the food security through following measures.⁶

- (1) Self-sufficiency in production of cereals, starchy staples and animal protein foods, with priority for maize, rice, and cassava in the crop sub sector in the short term.
- (2) Maintenance of adequate buffer stocks for price stabilization and food security during periods of seasonal shortfalls and major crop failures.
- (3) Self-sufficiency in production of industrial raw materials- cotton, oil-palm, tobacco, groundnut, etc- for agro-based industries;
- (4) Increased production of exportable crops- cocoa, pineapple, coffee, shea-nuts, ginger and kola;
- (5) Improvement in storage, processing and distribution systems to minimize post-harvest losses.
- (6) Strengthening MOA, including the decentralization of its activities by shifting operational responsibility from headquarters to the regions.

⁶ William. B. Morgan, and Jerzy A Solarz, "Agricultural crisis in sub-Saharan Africa: Development constraints and Policy problems", *The Geographical Journal*, Vol. 160, No. 1, March 1994, pp. 6-12.

- (7) Improving existing institutions and facilities, such as the agricultural research centers, credit facilities, marketing facilities, etc; and
- (8) Ensuring adequate returns to farmers, fishermen, distribution and processors in order to promote efficient production. Processing and distribution of agriculture and other food items. Incomes must be high enough to raise productivity in Ghanaian agriculture to levels comparable to that prevailing internationally.

(i) Food Security and Agricultural Research

In 1950s the agricultural research in Ghana was poor conditions because of insufficient financial support. But from 1960s onwards the agricultural research improved. The research focused only for cereal crops and as result positive impact on food production. The research on industrial crops has not been significant development. In 1986, agricultural research received a total of cedi 155.8 million or 0.88 percent of Agricultural Gross Domestic Product (AGDP). In 1987, the corresponding figures were cedi 2768.6 million and 0.73 percent. In constant 1987 prices, average for 1986/87 amounted to 0.80 percent of AGDP or US\$0.72 per hectare of arable land. The proportion of agricultural research funds spent on major commodity groups are given in Table 3.11

Table 3.11**Expenditure on Agricultural Research**

	1986 (Cedi Million)	1987 (Cedi million)	%Total	%Contribution to AGDP
Agriculture/livestock	1438	1492	50	71
Cocoa	1452	1141	45	17
Forestry	105	101	4	9
Fishing	23	35	1	3
Total	3018	2769	100	100

Source: Medium Term Agricultural Development Plan (MTADP), Policy Planning Monitoring & Evaluation Department (PPMED), 1989.

The Crops Research Institute (CRI) was established and its main function is conducting research on all food, industrial and horticultural crops in Ghana. The industrial crops are handled by their own separate board of crop cocoa, cola, coffee and oil palm. The Grains and Legumes Development Board of (MOA) as a cooperative institution which is responsible to increase the production of maize and cowpeas in Ghana self-sufficient. The Nyankpala Research Station is located Northern Region and it concentrated on semi-arid lands research. The Food Research Institute (FRI) is based in Accra, which main function is to improve the food technology, food industries and food marketing.

Despite, the major problems disturb the promotion of technology are institutional factors such as lack of finance, poor extension, and inadequate linkages between research and extension, lack of credit, untimely input supply, and poor infrastructure in particular roads and marketing.

3.3 Food Security at Regional Level

The regional food security in Ghana is involving two strategies; (1) through assisting the drought prone, resource poor and poverty stricken in northern regions and (2) to assist smallholders in the transitional zone of Ghana. In addition certain areas in the forest zone should be selected for assistance to smallholder engaged in traditional valley-bottom rice production. As a result, the crop pattern had been changed in all regions. In the southern part of the country, the major crops are maize, cassava, cocoyam and plantain. Vegetables are quite important in all southern regions, especially in the Greater Accra and Brog-Ahafo Regions. In the northern regions, besides maize, millet and sorghum are major crops, followed by groundnuts and beans. The northern part of the country seems to practice a lot of mixed cropping, probably as a food security device.

But on the other side of regional food security encourage more small holders. The small holders constitute about 76 percent of all holders in Ghana, but cultivate only 44 percent of total cultivated land. Smallholders are a large proportion of total holders in all regions except the Upper West Region.⁷ The classification used, however, with a cutoff point of 1.6 hectare (ha) (4 acres), has excluded many poor farmers with holdings larger than 1.6 hectare (ha). This is because the method of cultivation in all the regions of the north is extensive, and hence it takes a larger farm in the north to produce what can be produced in 1.6 hectare (ha) in the south.

Consequently the gross income of all regions increased considerably which can be shown below in the table 3.12. This table indicates real small holder's income in all

⁷ Oku Giri and Fukai , *Agricultural Sector Survey 1986*, Ministry of Agriculture, Ghana, Accra, 1987, p. 23.

regions from 1970 to 1986. It can be seen that real gross smallholder incomes in all regions rose in the 1970s, and then declined until 1982. But in 1983 again decline due to the drought would reduce gross real incomes by about 40-50 percent. However, real income was higher, compared to the pre-drought situation.

In the context of regional differentiation, the table 3.13 shows that the gross crop income per hectare of a representative smallholder and it also represent that the crop patterns of certain regions. The first result that can be noticed is that the crop income per hectare of cultivated area was vastly different among regions. In the Upper East shows lowest level of gross out per hectare but on the other hand the average crop pattern yield highest level in the region of Brong-Ahafo.

Table 3.12

Food crop Income by Different Region among Small Holders (1970=100)

Region	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Western	100.0	110.6	115.7	119.0	118.3	127	141.4	148.0	110.0	80.3	91.8	85.1	89	304.9	90.5	74.5	86.3
Central	100.0	107.9	119.3	120.7	113.8	122	149.5	158.9	104.2	78.7	98.1	96.0	93.6	32938	87.2	77.1	89.5
Greater Accra	100.0	96.7	114.4	127.8	110.9	117	130.3	123.8	81.1	82.3	84.9	81.3	81.7	226.6	75.9	87.0	78.5
Eastern	100.0	112.7	116.8	117.1	118.7	127	145.3	155.7	114.2	79.9	95.0	89.6	91.2	327.5	92.1	71.8	88.4
Volta	100.0	106.3	113.4	118.4	117.3	126	132.3	130.9	100.0	82.6	85.80	79.4	82.9	256.9	83.5	75.5	80.3
Ashanti	100.0	111.3	114.7	120.7	119.1	126.0	140.1	149.3	113.8	79.7	92.3	84.8	88.8	305.8	93.6	76.6	87.2
Brong-Ahafo	100.0	107.3	112.1	118.0	118.6	126	131.1	130.0	104.1	82.3	85.3	77.3	82.8	258.4	86.5	75.0	80.4
Northern	100.0	104.3	108.5	114.0	118.9	122	128.6	123.3	101.7	84.0	87.7	78.2	85.8	264.4	87.5	71.8	78.2
Upper West	100.0	103.2	106.9	113.0	120.2	119	128.2	120.7	100.5	83.5	90.1	79.6	88.5	274.5	90.9	70.9	78.0
Upper East	100.0	97.2	100.9	111.2	123.9	105	130.3	123.1	93.80	89.0	101.5	100.0	110	313.5	99.3	78.2	83.8
Ghana	100.0	106.7	111.6	116.7	118.8	123	134.0	134.0	104.6	82.4	89.7	82.2	87.7	281.1	89.1	74.0	82.0

Source: Ministry of Agriculture, Accra. Note: The deflating of total gross income by the rural CPI 1970=100.

Table 3.13

Food Crop Income per Hectare of Representative Smallholder by Region

Region	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Western	53.8	55.9	55.9	54.9	53.6	55.3	56.8	59.6	56.6	52.5	55.1	56.4	54.7	58.4	54.7	54.2	56.7
Central	52.6	56.3	56.3	54.4	50.4	52.0	58.7	62.4	52.4	50.2	57.6	61.4	56.2	61.7	51.5	54.8	57.4
Greater Accra	65.2	66.9	66.9	71.4	60.9	61.6	63.3	60.2	50.6	65.1	61.7	64.5	60.8	52.6	55.6	76.6	62.4
Eastern	109.4	114.6	114.6	109.7	109	113.1	118.7	127.1	119.5	106.1	115.9	119	113.9	128	113.1	106.1	117.9
Volta	116.0	117.9	117.9	117.1	115	118.4	114.5	113.3	110.9	116.3	110.9	112.0	109.7	106	108.8	118.3	113.6
Ashanti	93.0	97.0	95.6	96.2	93.3	95.0	97.2	103.6	101.2	90.0	95.7	95.9	94.2	101	97.8	96.2	98.9
Brong-Ahafo	134.6	135.3	135.3	136.1	135	138.1	131.7	130.5	133.9	134.5	128.1	127	127.2	124	130.7	136.3	132.0
Northern	80.2	78.4	78.0	78.4	80.3	79.2	77.0	73.8	78.0	81.9	78.5	76.3	78.5	75.5	78.8	77.8	76.5
Upper West	77.7	75.1	74.4	75.2	78.6	74.7	74.3	70.0	74.6	78.8	78.0	75.2	78.4	75.9	79.3	74.4	73.9
Upper West	27.3	24.8	24.7	25.9	28.4	23.3	26.5	25.0	24.4	29.4	30.8	33.2	34.3	30.4	30.4	28.8	27.8
Ghana	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Ministry of Agriculture, Accra

3.4 Food Security at Domestic Level

The proportion of per capita output of food is the major implication of food security at household level. The per capital output of crops such as cereals, maize, rice, roots, cassava and yam has shown the increasing trend, but the crops like millet, cocoyam and plantain has declining trend from the period of 1970s to 1990s. On the basis of growth rate of per capita out put of major crops had worse in the period of 1970s and improved condition in 1980s and again declined in 1990s. This can be indicated below in the table 3.14.

The table 3.15 clearly indicates the consumption expenditure of smallholders and it revealed that the Consumption expenditure of food grain had been declined from the period of 1970s to 1980s in all regions, expect Upper West Region. The Upper East region is the less per capital consumption expenditure which means that this region is predomination of poor.

Table 3.14

Per Capita Out put of Major Crops

Crops	1970/74	1975/79	1980/84	1985/89	1990/94	1995/99	Annual Growth Rate		
							1970s	1980s	1990s
Cereals	90.1	64.3	64.6	79.1	91.6	100.9	-2.9	2.2	1
Maize	50.2	29.7	28.6	43.0	54.1	58.3	-4.0	5.0	0.8
Rice	6.9	6.7	4.3	6.1	8.2	12.9	-0.3	4.2	5.7
Millet	14.1	13.1	19.2	16.3	12.4	10	-0.7	-1.5	-1.9
Sorghum	19.0	14.8	12.6	13.7	17.0	19.6	-2.2	0.9	1.5
Roots/Tubers	737.6	442.3	445.5	472.6	629.5	753.6	-4	0.6	2
Cassava	314.8	214.0	223.2	229.7	342.8	411.2	-3.2	0.3	2
Yam	87.8	55.5	41.8	78.0	134.8	146.8	-3.7	8.7	0.9
Cocoyam	134.3	75.8	103.1	78.5	74.9	89.4	-4.4	-2.4	1.9
Plantain	200.8	96.9	77.4	86.4	77.0	106.2	-5.8	1.2	3.8

Source: Ministry of Food and Agriculture, Government of Ghana, Accra.

Table 3.15

Food Consumption Expenditure of Smallholders by Region

(Cedis per Indicated Weight and in Kgs)

Region	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Western	44.1	41.3	42.5	42.5	43.4	43.7	39.3	35.6	38.8	44.6	39.8	37.7	37.9	34.2	38.7	42.7	38.7
Central	53.9	49.8	53.3	53.3	52.0	51.6	50.4	46.9	46.1	54.2	51.5	50.4	49.0	46.3	47.7	54.4	49.4
Greater Accra	70.2	59.1	68.3	68.3	65.5	64.5	59.7	50.9	47.3	73.3	60.3	59.4	57.7	44.6	54.2	79.2	58.4
Eastern	101.3	99.1	100.6	100.6	101.1	102	96.3	92.3	95.9	102.6	97.4	94.5	93.0	92.8	94.8	94.4	94.8
Volta	63.8	59.6	61.3	61.3	62.3	62.4	56.3	51.2	56.7	62.3	57.8	53.3	54.3	46.4	57.2	69.6	57.1
Ashanti	57.0	53.3	55.7	55.7	56.3	56.6	51.9	47.5	48.8	61.2	51.7	51.3	51.3	47.0	49.7	53.5	50.5
Brong-Ahafo	46.7	44.2	45.9	45.9	45.7	45.8	43.8	40.6	41.9	46.9	44.1	43.1	43.2	38.8	42.7	48.1	43.4
Northern	62.8	62.3	63.4	63.4	62.8	63.5	63.2	63.4	62.0	64.9	63.6	66.6	64.1	63.3	60.5	64.1	64.2
Upper West	48.2	49.2	49.0	49.0	50.2	54.3	46.3	44.3	49.4	52.1	44.9	47.1	46.3	43.1	45.1	49.5	49.1
Upper West	21.2	20.4	20.4	20.4	22.7	21.2	20.7	19.9	20.3	24.4	22.2	26.0	25.3	21.6	21.7	24.0	23.2
Ghana	63.7	60.4	62.0	62.0	63.5	63.2	58.7	54.2	57.4	66.5	59.6	58.7	59.0	53.6	58.3	63.3	58.7

Source: Ministry of Agriculture, Accra

Chapter-IV

STRUCTURAL ADJUSTMENT AND ITS IMPACT ON FOOD SECURITY IN GHANA

Chapter IV

Structural Adjustment and Its Impact on Food Security in Ghana

4.1 Structural Adjustment Programmes in Ghana

The Structural Adjustment Programme (SAP) adopted in Ghana was on the recommendation of IMF and World Bank package, which consists of policies such as; 1) price decontrol involving the removal of subsidies on food, consumer items and agriculture inputs; 2) trade liberalization and currency for social devaluation; 3) Introduction or increases in user charges for social services; 4) demand restraint through cuts in government expenditure, public sector employment and real wages; as well, long-term supply policies aimed at credit reform, the long-term efficiency of the economy through privatization of state owned institutions.¹

The Economic Recovery Programme (ERP) was launched in response to the crisis situation which explained in chapter 2 earlier. The first phase of this programme focused on stabilization, which was to be followed by a phase of this rehabilitation. The final phase may be described as one of liberalization. The key elements of the strategy for implementing the ERP have been; (a) a realignment of relative prices to encourage productive activities and exports through strengthening of economic incentives;(b) a progressive shift away from direct controls and intervention towards greater reliance on market forces; (c) the early restoration of monetary and fiscal discipline; (d) the rehabilitation of social and economic infrastructure; and (c) the undertaking of

¹ World Bank, *Ghana Policies and Program for Adjustment*, (Washington, 1984), pp. 1-20.

structural and institutional reforms to enhance the efficiency of the economy and encourage the expansion of private savings and investment (IMF, 1991).²

The above measures involved the following specific changes:

(a) Monetary, Fiscal and Trade Policies

The Government adopted a policy of flexible exchange rate trusting in the devaluation of the national currency-cedi and a liberal trade system. From the excessive over-valuation of the cedi, as indicated by a divergence of over 4,264 percent between the official and parallel market rates at the end of 1982³, the cedi was allowed to depreciate; the cedi-dollar exchange rates was determined by the forces of demand and supply in a weekly auction, which was finally abolished in March 1992. On the banking side, restrictive monetary and credit polices were initiated to keep the growth of net domestic assets of the banking system in relation to the money stock within appropriate limits (Government of Ghana Paper, 1989-1991)⁴. Ceiling on the expansion of commercial banks' loans together with complete liberalization of bank lending rates and the introduction of regulatory measures by the Bank of Ghana curtailed domestic credit expansion. On the fiscal side, the Governments main concern was to generate revenue through user fees taxes, cess, etc, and to reduce expenditure. For instance, fees were imposed on educational and health facilities, subsidies on fertilizers were phased out and employment was reduced. Beginning with a total of 13,937 civil servants who

² J Kapur, M.T. Hadjimichael, P. Hilbers and J. Schiff, *Ghana: Adjustment and Growth* (Washington, 1983), pp. 1-5.

³ C.K Dorduno, *A Macro Economics Analysis of Output and Employment in Ghana*, Ministry of Employment and Social Welfares and UNDP/ILO Umbrella Programme: Sustained Employment Generation (GHA/89/007). Accra, 1994, pp. 1-7.

⁴ Government of Ghana, *Policy Framework Papers, 1989-1991 and 1991-93*, Accra, 1994, pp. 1-10.

were redeployed in 1989 (Government of Ghana, 1991-1993),⁵ the number appears to have risen to 150,000 as quoted in the November 1994 meeting with the Heads Departments in the Trade Union congress (TUC). This was accompanied by a freeze on salaries of public servants till 1992.

Inflation declined from 21% in 2001 to 15% in 2002 (figure 5.5), thanks to the improved food supply and the stability of the cedi against the dollar, supported in part by the inflow of remittances from Ghanaians abroad \$1.2 billion in 2002. Food prices, with 52% weight in the Consumer Price Index, fell in the last quarter. But monetary growth threatened price stability because of the growth in foreign currency deposit and quasi money. Inflation is certain to rise in 2003 (the projection is 18%) with the 98% petroleum price increase announced in January 2003.

Other important policy actions in 2002 include the Bank of Ghana Act, establishing the independence of the central bank. It also establishes a Monetary Policy Committee; to help the Bank of Ghana design appropriate policies to maintain macroeconomic stability and mobilize savings for national development. The bank revised its reserve requirement on foreign currency holdings to encourage foreign currency deposits, allowing commercial banks to hold primary (cash) reserve against foreign currency deposits is foreign currency rather than cedis

The recent development of fiscal reform is strict measures of tax revenues and as a result to control the channeling of proceeds into the government treasury. The overall cash deficit declined from 8.5 % of GDP in 2000 to 4.4% in 2001. The overrun for 2002 deteriorated, however, with cash deficit rising to 6.9% of GDP.

⁵ Ibid, pp. 1-15.

All major components of government revenues (except non tax revenue) exceeded their targets, with taxes on international trade over performing by over 30%, thanks to better tax administration and surveillance on the borders. Non-receipt of project and programme grants was the main reason for the shortfall in non-tax revenues, about 50% of the target. By the third quarter of 2002, only 18% of programme grants had been received. Assistance under the Heavily Indebted Poor Countries (HIPC) Initiative about \$273 million exceeded the target. The increase in the 2002 deficit is attributable mainly to the programme expenditure arising from grade adjustments in the Ghana Education Service and the public health sector.

The public sector borrowing requirement, a key performance criterion for the IMF poverty and Growth Facility arrangement, has been consistently breached. For example, it was overrun by 981 % in 2000. But the overrun in 2001 was only 33% of total domestic borrowing in 1999 to 2.5% in 2001.

The biggest fiscal challenges at the beginning of 2001 were the domestic debt. When the new government took over in January 2001, the domestic debt was not immediately known. Different government agencies supplied figures that changed by the day, in arrange of 9 to 12.5 trillion cedis. The recent improvement in public debt accounting should address this uncertainty. And the shift from bank to non bank instruments to meet the government's borrowing requirements means less crowding out of private sector.

The Ghanaian economy is very dependent on the external sector Gold, cocoa, and timber contribute more than 70% to export revenues while 60% of the country's budget is supported by external inflows. So any external shock easily manifests itself

first in the exchange rate, which then reverberates to other aspect of the economy. Between 1984 and 2000 the nominal exchange rate fell from 36 cedis to the dollar to 5400. In 2000 alone the nominal exchange rate was down by 98%, but year on year there was a deceleration to 5% in 2001.

The external balance worsened in the 1990s. In 1997 the balance of trade deficit was 5.8% of GDP, compared with 1% in 1984, and it increased to 8.4 % (table 5.5). What explains this? Weak export capacity, the long-term decline in international prices for cocoa and gold, and growth in the demand for consumer imports.

The external reserve position depends on aid inflows, given the weaknesses of exports. In 2000 the import coverage of external reserves dropped to about one month. Despite one of the worst trade performances in 2001, a substantial increase in external assistance improved the balance of payments, and gross international reserves rose slightly to seven weeks of import cover. Exception programme support-\$364 million in programme grants, concessional loans, and deferred loan repayment –moderated the poor performance of traditional exports in the balance of payments.

(b) Price Policy

Price controls were removed and markets were allowed to play a major role in the determination of prices (World Bank, 1990).⁶ In July 1985 the rigid price controls by the Prices and Incomes Board had been reduced to eight commodities and remaining price controls were flexibly determined. However, some manufacturers started facing strong pressure not to increase the prices (i, e., the price of soap in 1989 as a evident from personal interviews with soap manufacturers at the time).

(c) Agriculture Policy

The Ghana agricultural policy was aimed at increasing the output of both exports and food crops through raising productivity and also increasing the area under cultivation. To achieve this objective of agriculture production through a Medium Term Development plan. As a result, all the agricultural producer prices raised and also exports of certain agricultural commodities such as pineapples, cola nuts, etc increased. Appropriate linkages with the manufacturing sector could have further enhanced the production capabilities of this sector.

(d) Private Sector Promotion Policy

The above policies had been complemented since 1987 by the implementation of a wide range of structural and institutional reforms designed to strengthen the efficiency of economy and expand private sector activity. Some of the measures introduced under this category were: divestiture of state – owned enterprises, incentives to focus on the use of locally-sourced raw materials, amendment of the Ghana Investment Code to attract investment and other related incentives and concessions (World Bank, 1990).⁷ However, the private sector investment response remained below the levels needed to generate sustainable growth-its share of gross domestic product is only 8.5percent (Institute of Statistical, Social and Economic Research, ISSER, University of Ghana, logon, 1993).⁸ The reason range from continued domination of the economy by the public sector to large gaps between official regulations and implementation.

⁶ World Bank, World development reports, Washington., 1990. pp.1-55.

⁷ Ibid, pp. 7-21.

⁸ Institute of Statistical, Social and Economic Research, University of Ghana, logon, 1993, pp. 4-23.

The various adjustment measures introduced by the government came under sharp criticism as they fell short of the expected results. Moreover, fiscal austerity measures on the people like the wage-cuts, price increases, lay offs, etc. resulted in considerable difficulties for the people in general and the poor in particular, on whom the costs of adjustment fell rather disproportionately. Consequently, the government launched a programme known as the “Social Dimension of Structural Adjustment” with the following immediate objectives:

- To assess the impact of structural adjustment programmes over time on various population groups.
- To strengthen the institutional capacity of government to develop and maintain adequate statistical data bases on the social dimensions of structural adjustments.
- This was followed by the programme for the Mitigation of Action the Social Cost of Adjustment (PAMSCAD) whose main objectives were to generate and accelerated employment in both rural and urban areas.

4.2 Impact of Structural Adjustment Programmes

The implementation of SAPs resulted in a major turnaround in Ghana’s overall financial and economic performance since 1983. During the eight-year period to 1991 growth in real GDP recovered, allowing gains in payments switched from deficits to surpluses, facilitating external payments and a build-up of exchange reserves. The recovery in output growth, combined with the gradual liberalization of exchange restrictions boosted the expansion in the volume of Imports to an average of

19 percent a year. The rising extendable-financing requirements have been covered in part by modestly growing inflows of official external assistance. The inflows of official grants and concessional loans rose from the equivalent of less than 1 percent of GDP in 1983 to about 10 percent of GDP by 1990.

Despite the improvement on the economic and financial scenes, however, Ghana continued to be confronted with a number of structural, institutional and financial constraints. These included a high inflation rate; a small though developing private sector, low levels of domestic savings and investment, which prevent a self-sustained growth in output and increasing pressure on the public sector's management and implementation capacity.

(a) Impact on Structural Adjustment Programme and Agriculture Production

The programme influences agriculture and the rural smallholder sector to the extent that the pre-reform policies had affected their economic performance. The GDP and all its components had been declining in the period 1970-83, exhibited remarkable growth rates in the period 1984 -86. Agriculture and services GDP, as well as total GDP, in 1986 stood well above 1970 figures, although GDP in industry in 1986, despite its recently growth, still stood at only 73 percent of its 1970 level.

Table 4.1

Selected Economic Indicators before and after the ERP

Indicator	1970-83 Average Annual Growth Rate	Percent Change		
		1984/83	1985/84	1986/85
National Account (Cedi million at 1975 constant prices)	-1.0	8.7	5.1	5.3
GDP at market Prices	-0.6	9.7	0.8	5.3
GDP in agriculture	1.7	6.6	7.7	4.4
GDP in services of which:	-2.5	10.2	9.2	6.1
Wholesale retail trade	5.6	1.2	5	3.4
Government and other				
Gross fixed capital formation as % Of GDP at market prices				
External Trade (US \$ Million)				
Merchandise exports (f.o.b)	-0.8	28.9	11.7	22.3
Merchandise imports (c.i.f)	1.5	26.3	6.8	7.3
Balance on current account				
Prices (annual percentage change)				
Consumer prices	53.7			
Consumer food prices	33.5			
Wholesale prices	26.2			

Source: World Bank 1987 and World Bank 1985, Ghana

The agricultural development and fertilizers are closely related. The banks, Agricultural Development Bank (ADB) and Ghana Commercial Bank (GCB) to arrange, procure and distribute fertilizers to meet the farmers' in Ghana. But after the structural adjustment programme in Ghana government dropped the fertilizer subsidies. The privatization is the major fertilizer input distribution in 1991. As a result the fertilizer distribution is ineffective. In addition to this, fertilizers storage is expensive in privatization. The imports of fertilizers amount is 30,000 mt at US\$150/mt. And with an exchange rate of cedi 175=US\$ 1, the cost would be cedi 787.5 million.

As part of the programme, the World Bank undertook an Agriculture Sector Review (World Bank 1985a and World Bank 1985b)⁹, which identified the main elements of a strategy to promote agriculture development on a sustainable basis. This led to the launching of a US\$ 53.5- million Agricultural Services Rehabilitation Project (ASRP) in 1987. The aim was to strengthen the capacity of the public sector to support research and extension services, irrigation and policy planning, and monitoring, evaluation and coordination; and to make the investments necessary to expand agriculture production. The basic objective of the project was to initiate a self-sustaining process of rehabilitation so that (MOA) could give more effective support to agriculture through an improved implementation capacity. Specifically, it had three inter-linked objectives;

- To strengthen the institutional framework for the formulation and implementation of agricultural policies and programmes;
- To improve the delivery of public sector services to agriculture; i.e., extension, research, irrigation, and veterinary services; and

⁹ World Bank, "Ghana Agricultural Sector Review", Report No. 5366-GH, Washington, 1985, pp.5-16.

- To improve the procurement and distribution of agricultural inputs by privatizing them.

(b) Structural Adjustment Programme and Agricultural Price Policies

The food price shows considerable fluctuations due to the seasonal food production and inadequate and poor storage facilities. Generally, the food prices are very low during the harvest period and increase gradually to a peak just before the next harvest (Alderman and Shively, 1991)¹⁰ have shown, the food price movements correlate positively with malnutrition in poor households. The table 4.2 represented the nominal wholesale prices of major food crops in the period from 1980 to 2001. The rate of inflation for all food grains have been increased invariably in the period of 1980s and 1990s. For example, the price of rice, increased from 6 cedis per kg to 322 cedis per kg in the 1980s, showing annual rate of increase of over 500%. The price continued in the upward trend from 187 cedis per kg at the beginning of the 1990s. The rapid increases in the nominal food prices can be attributed to the high inflation in the country (Ghana Statistical Service, 2002).¹¹

¹⁰ H. Alderman, and G Shively, *Prices and Markets in Ghana, Corell Food and Nutrition policy program*, Working Paper 10, Washington, 1991, pp. 6-8.

¹¹ Ghana Statistical service, *Statistical Tables*, Accra, Ghana, 2002, pp. 5.

Table 4.2**Nominal Wholesale Prices of Major Food Crops, 1980-2001 (Cedis /Kg)**

Year	Maize	Rice	Sorghum	Millet	Cassava	Yam (Tuber)	Cocoyam	Plantain
1980	4.14	5.97	5.21	5.33	1.52	9.57	2.13	1.35
1981	7.74	11.66	8.11	9.44	3.73	15.45	4.43	2.04
1982	7.79	19.41	11.14	13.46	4.20	21.56	6.21	2.82
1983	38.58	61.55	52.97	48.72	16.45	70.20	30.84	11.95
1984	23.38	67.10	40.39	47.7	9.30	69.60	22.39	13.04
1985	20.38	52.07	24.70	35.11	8.73	68.13	11.43	13.51
1986	33.11	61.74	35.91	43.23	15.48	90.12	23.09	14.91
1987	53.87	106.31	53.87	57.75	34.99	107.69	48.31	28.3
1988	68.59	194.52	76.39	94.13	17.64	193.87	51.40	32.32
1989	53.00	322.3	87.09	114.66	27.44	233.65	59.33	43.47
1990	86.33	186.62	97.27	117.80	46.97	301.02	87.73	69.31
1991	94.34	192.77	122.98	154.44	43.96	294.69	84.39	55.42
1992	100.48	211.79	133.43	157.33	44.48	290.70	100.18	66.83
1993	110.72	273.30	167.62	132.51	59.57	273.30	167.62	100.98
1994	138.63	351.63	164.38	197.39	63.00	533.10	176.01	121.24
1995	245.34	551.57	273.00	328.25	104.95	822.19	293.18	259.97
1996	328.14	805.20	401.01	459.72	113.07	974.87	278.03	230.81
1997	643.26	1047.07	616.11	751.81	174.48	1420.86	464.89	408.63
1998	593.09	1012.65	687.78	937.55	309.45	2395.36	669.66	514.94
1999	451.53	1064.09	613.63	777.14	211.37	1664.39	610.09	382.75
2000	936.63	1672.76	835.07	1123.35	371.40	2152.84	771.78	873.63
2001	1501.63	2548.39	1879.6	2298.59	887.99	3575.00	1080.57	1409.19

Source: Policy Planning, Monitoring and Evaluation Department, Ministry of Food and Agriculture, Accra.

The annual changing prices of staple crops is shown in the below table 4.3. From this table the movements in the inter year food prices were not uniform among the different food commodities. Thus, some food types became relatively more expensive than others from time to time, distorting the access to food. For example in 1990, while the price of cassava increased by 71%, maize by 63% and plantain by 59%,

the price of millet went up only 2.7% and the price of rice decreased by 42%. The inter-year price changes were sometimes over 100% for some but most often they were between 25% and 75%. There were many instances also when the changes were negative, thus, contributing positively to food security (affordability) at that time.

Table 4.3

Annual Price Changes of Staple Crops, 1980-2000 (Percentage)

Year	Maize	Rice	Millet	Cassava	Yam	Cocoyam	Plantain	Sorghum
1980	147.9	111.7	122.4	109.0	63.6	53.1	52.5	159.4
1981	87.0	95.3	77.1	45.4	61.4	108.0	51.1	55.7
1982	3.0	66.5	42.6	12.6	39.5	40.2	38.2	37.4
1983	-384.1	217.1	262.0	291.7	225.6	396.6	323.8	375.5
1984	-39.4	9.0	-2.1	-43.5	-0.9	-27.4	9.1	-23.7
1985	-12.8	-22.4	-26.4	-6.1	-2.1	-49.0	3.6	-38.8
1986	62.5	18.6	23.1	77.3	32.3	102.0	10.4	45.4
1987	62.7	72.2	33.6	126	19.5	109.2	89.8	50.0
1988	27.3	83.0	63.0	-49.6	80.0	6.4	14.2	41.8
1989	-22.9	65.7	21.8	55.6	20.5	15.4	34.5	14.0
1990	62.9	-42.1	2.7	71.2	28.8	49.9	59.4	11.7
1991	9.3	3.3	31.1	-6.4	-2.1	-3.8	-20.0	26.4
1992	9.3	9.9	1.9	1.2	-1.4	18.7	20.6	8.40
1993	10.2	29.0	-15.8	33.9	-6.0	67.3	51.5	25.6
1994	25.0	28.7	49.0	5.8	95.1	5.0	20.1	-1.9
1995	77.0	56.9	66.3	66.9	54.2	66.6	114.4	66.1
1996	33.7	46.0	40.1	7.7	18.6	-5.2	-11.2	46.9
1997	96.0	30.0	63.5	54.3	45.7	67.2	77.0	53.6
1998	-7.8	-3.3	24.7	77.4	68.6	44.0	26.0	11.6
1999	-23.9	5.1	-17.1	-31.7	-30.5	-8.9	-25.7	-10.8
2000	107.4	57.2	44.5	75.7	29.3	26.5	128.3	36.1
2001	60.3	52.3	104.6	139.1	66.1	40.0	61.3	125.1

Source: Estimated from Ghana Statistical Service, Census Reports and Ghana Statistical service (2001), Accra, Ghana.

The real prices (1980 base) of staple crops is shown in the below table 4.4. The real prices of food peaked in 1983 and declined in a fluctuating fashion for the rest of

the 1980s and 1990s. The decline in the real food prices should have the effect of improving the food security status of households. In a decade (1992 to 2002), the contribution made by food prices compared with non-food prices was except in three years, 1993, 1995 and 1999. In these years therefore, food prices negatively affected the food security status of households. In the other years, it was the non-food prices that reduced the food security status of households.

Table 4.4
The Real Prices of Staple Crops, 1980-1999 (Cedis /Kg)

Year	CPI	CPI Deflator	Maize	Rice	Sorghum	Millet	Cassava	Yam (Tuber)	Coco Yam	Plantain
1980	448	1	4.14	5.97	5.21	5.33	1.52	9.57	2.13	1.35
1981	869	1.94	3.99	6.01	4.18	4.87	1.92	7.96	2.28	1.05
1982	1062	2.37	3.36	8.19	4.7	5.68	1.77	9.09	2.62	1.19
1983	2367	5.28	7.31	11.66	10.03	9.23	3.12	13.3	5.84	2.26
1984	3652	8.15	2.87	8.23	4.96	5.85	1.14	8.54	2.75	1.60
1985	3974	8.87	2.30	5.87	2.78	3.96	0.98	7.68	1.29	1.52
1986	4824	10.77	3.07	5.73	3.33	4.01	1.44	8.37	2.14	1.38
1987	6352	14.18	3.80	7.50	3.8	4.07	2.47	7.59	3.41	2.00
1988	8344	18.63	3.68	10.44	4.1	5.05	0.95	10.41	2.76	1.73
1989	10449	23.32	2.27	13.82	3.73	4.92	1.18	10.02	2.54	1.86
1990	14342	32.32	2.70	5.83	3.04	3.68	1.47	9.41	2.74	2.17
1991	16933	37.80	2.50	5.10	3.25	4.09	1.16	7.80	2.23	1.74
1992	18630	41.58	2.42	5.09	3.21	3.78	1.07	6.99	2.41	1.61
1993	23280	51.96	2.13	5.26	3.23	2.55	1.15	5.26	3.23	1.94
1994	29069	64.89	2.14	5.42	2.53	3.04	0.97	8.22	2.71	1.87
1995	46355	103.47	2.37	5.33	2.64	3.17	1.01	7.95	2.83	2.51
1996	67938	151.65	2.16	5.31	2.64	3.03	0.75	6.43	1.83	1.52
1997	86882	193.93	3.32	5.40	3.18	3.88	0.90	7.33	2.40	2.11
1998	103310	230.60	2.57	4.39	2.98	4.07	1.34	10.39	2.90	2.23
1999	116173	259.31	1.74	4.10	2.37	3.00	0.82	6.42	2.35	1.48

Source: Ministry of Food and Agriculture and Ghana Statistical Service, Accra.

(c) Fiscal Reforms and Food Security

The structural adjustment programme had a directly curtail on public expenditure for agriculture. The table given below indicates the public expenditure on agriculture for the period from 1981 to 1985 and also budgeted expenditure for 1986 and 1987. It clearly shows that the expenditure on agriculture had been suffered severely.

In money term the total expenditure on agriculture expenditure had been increased C969.4 million in 1981 to C3870.1 million in 1987. At the same period the agricultural development expenditure was C166.4 million to C983.8 million. But the share of agricultural expenditure in total public expenditure has declined from sharply from 10.4 percent in 1983 to a realized 4.2 percent in 1985. The budget expenditure was 3.5 percent in 1987. The proportion of GDP, public expenditure on agricultures was small and it was 1.1 percent in 1983. This further declined to 0.5 percent in 1985 and 0.6 percent in 1987.

The real value total expenditure on agriculture declined from an index of 100 in 1981 to declined continuously which was 81.2 per cent in 1982, 58.2 in 1983, 35.8 in 1984, 47.7 in 1985, and it was rose in 1986 which was 66.2 but again declined to 56.5 in 1987.

The real value of development expenditure on agriculture reduced from 100 in 1981 to 60.7 in 1984 before recovering to 95.1 in 1985. In 1986 the budgeted index stood at 136.9. While this is well above that of 1981, in 1987 it dropped in real terms to 83.7.

Table 4.5

Public Expenditure on Agricultural Development (C million)

Expenditures	1981	1982	1983	1984	1985	1986	1987
Agriculture Total	969.4	962.5	1536.6	1320.6	1940.0	3354.0	3870.1
Agriculture Recurrent	803.0	827.6	1389.3	936.3	1276.0	2163.0	2886.3
Agriculture Development	166.4	134.9	147.3	384.3	664.2	1191.0	983.8
Agriculture Expenditures							
As %of total Public Expenditure	11.0	9.8	10.4	4.9	4.2	4.6	3.5 ^{^2}
Agriculture Expenditure							
As % of GDP at Market Prices	1.3	1.1	0.8	0.5	0.5	0.7	0.6 ^{^2}
Real Value of Total Expenditures							
In Agriculture (1981=100)	100.0	81.2	58.2	35.8	47.7	66.2	56.5
Real value of Development							
Expenditure in Agriculture (1981=100)	100.0	66.3	32.5	60.7	95.1	136.9	83.7

Source¹²: Ministry of Finance, Ghana 1987.

(d) Food Securities and International Aid

The total amount of cereal food aid for the last six years has not varied greedily. It went from a low of 50281 mt in 1982/83 (July –July) to a high of 94247 mt in the drought year 1983/84. It has continued at slightly reduced levels since then, despite the fact that the food situation has improved enormously since 1983. The amount of non-emergency food aid declined dramatically in the worst drought year (1983/84) to only 29757 mt while it increased to 76734 mt in the large surplus year 1984/85. During the next two years non-emergency food aid stayed at roughly the same high levels of

¹² Note: These figure are derived from Budget and Deflator of Consumer Price Index (CPI)

1984/85. It appears that the flows of food aid are reasonably constant and the donors just reliable certain amounts as emerged aid. The quantities imported under food aid constitute quite a large proportion of the country's total cereal supply. On the assumption that farmers market 60 percent of their total cereal output (a fairly large proportion) and if rice is to about 20-30 percent of marketed maize and rice, or about 16 percent of total marketed cereals in normal years (excluding 1983/84).

Table 4.6

**Cereal Food Aid as Proportion of Domestic Cereal Marketed Production, 1981-86
(thousand metric tonnes)**

Year	Cereal Production			Marketed Cereal		Cereal Food Aid as % of Marketed Products	
	Maize & Rice	Sorghum/ Millet	All Cereals	(Maize & Rice) 2	All Cereals	(Maize & Rice) 2	All Cereals
1981/82	377.8	301.2	679.0	226.7	407.4	30.2	16.8
1982/83	301.4	246.3	547.7	180.8	328.6	27.8	15.3
1983/84	167.7	220.2	387.9	100.6	232.7	93.7	40.5
1984/85	650.4	315.0	965.4	390.2	579.2	23.0	16.4
1985/86	475.0	305.0	780.0	285.0	468.0	26.9	16.4
1986/87	638.7	298.0	936.7	383.2	562.0	21.4	14.6

Source: Ministry of Agriculture, Ghana.

The current WFP programme in Ghana consists of four food-for-work projects with a total commitment of US\$81 million. This is the largest WFP assisted programme in West Africa, and is indicative of the size of WFP's support to the Governments present policy reforms and effort for structural adjustment. Food aid is being used as an incentive wage for workers to support the recovery of export sectors (timber and gold mining), transport infrastructure (railroads, ports, highways, and feeder roads), oil-palm

and rubber plantation and forestry. More recently, the petroleum refinery at Tema has been included under the WFP programme. Deductions are also being made of a small proportion of the value of the food from the wage of the workers and the proceeds placed in a government-held bank account to be used for financing social and economic development activities within the framework of the Government's public investment programme. These interventions are regarded as providing real incentives to the workers involved in the rehabilitation activities, and contributing significantly to maintaining labour employment, reducing absenteeism rates, and increasing workers productivity, particularly in timber, gold mining, railroads, palm oil and rubber plantations. On the other hand, it is clear from the profile of the smallholder that the wealthier producers are most likely to benefit from this implicit labour wage subsidy.

Given the improved general food situation in the country since the 1983 drought, WFP, in a review of its implementation experience, has tried to avoid having WFP-imported foods compete with locally produced foods, depressing local prices and creating a production disincentive. WFP is also aware of the importance of the selection of food baskets by placing emphasis on commodities which are normally in the import bills of the country such as rice, sugar, milk and fish products.

Part of the Food aid is monetized (sold domestically at market prices). For example, in 1986/87, more than half (52.2 percent) of food aid in cereals by USAID, EEC, Canada, Japan and France was monetized at market prices through the Ghana Food Distribution Corporation. The profit on Monetized food aid goes to the Government. The remaining 47.8 percent of the 1986/87-food aid in cereals by the above donors was given to NGOs and health care centres.

(e) Impacts on Structural Adjustment Programme and Social Sectors

In view of the long period of economic decline preceding the introduction of the SAP, it is difficult to attribute current problems of the poverty to the SAP. The problem is compounded by the breakdown of systematic socio-economic data collection. Despite the lack of precise and reliable data to provide a quantitative analysis, the deleterious effect of the SAP on the social service provision, at least in the short term, is not in much doubt. The World Bank, with respect to health and education, has to say¹³ Investments in health account for 3 percent of the total (public investment) programme, resource and management constraints so far have prevented much progress towards reaching the target of providing the primary health care to 80 percent of the population by 1990.

The effects of cutbacks in other goods and services in health have severely constrained support to primary health care at the community level by restricting deliveries of essential supplies, mobile health units, and field supervision. In the area of cost recovery, the increase of hospital fees in 1985 has mobilized resources which are currently shared by the general budget percent), the Ministry of Health (25 %), and the hospitals (25 %). Further increased are needed because fees are still below marginal costs, with a view to shifting the cost of curative health care to the user.

With respect to education, the World Bank states;

¹³ World Bank, "Ghana Policies and Issues of Structural Adjustment", Report No. 6635-GH, Washington, 1987, pp. 12-20.

The proportion of the education budget allocated to non-salary recurrent items has fallen from 19 percent in 1975 to 15 percent in 1984 and to only an estimated 6 percent in 1986, within a declining total.¹⁴

The boarding and meal subsidies for secondary schools are to be phased out. This process (of lowering the share of salaries in recurrent expenditure) will be assisted by expanded cost recovery for building fees, exercise books and text books.

The current Provincial National Defense Council (PNDC) Government has recognized the need for urgent action on education and the budget has been increased. In addition, funds have been raised from various international development agency sources. About 40 percent of the budget is allocated to the rehabilitation of existing facilities, which have priority over new construction. The education component of the IDA financed Health and Education Rehabilitation programme was negotiated in December 1985, as part of the ERP. It is concerned primarily with the printing and distribution of text books, the provision of stationery and the improvement of educational management.

In addition to rehabilitation, the government began to implement a major reform in the education sector in September 1987. The major structural element in the reforms is the reduction of the old statutory length of pre-university schooling from 12 to 7 years. In broad terms, the Government's policy is to increase greatly the proportion of children schooled up to the end of junior secondary level and to reorient the curriculum away from "academic" specialization toward a content and method more "comprehensive" in style. This range of the educational system is now termed the Basic

¹⁴ Ibid. pp. 21-14.

Education has estimated that the old system, in terms of the relevant age groups, catered to only 60 percent at primary, 28 percent at middle and a mere 7 percent at secondary levels. Under the new system, the intention is that all who enter primary level will proceed to junior secondary level; of these, 50 percent will go on to senior secondary levels, of which, 25 percent will proceed to tertiary education.

The reforms are now known as the Education Sector Adjustment Programme and come within the ERP (Phase II), Partial funding for them emerged from a Special Aid Consultative Group meeting, which was convened in September 1986. The educational reforms excited a certain amount of opposition, although there was nothing especially new about them. Curricula in the Gold coast and then Ghana have been repeatedly criticized as too academic, at least since 1950, and the structural changes are largely derived from proposals submitted by the Ministry of Education in 1972. The two main criticisms, standard with respect to educational reforms anywhere, are that educational standards will be lowered and reforms any where are that educational standards will be lowered and that the 50 percent of pupils who end their education with graduation from junior secondary will be inadequately prepared for the insufficient number of jobs available to them. Whatever the validity of these general reactions, there are more specific reservations which are relevant to pupils drawn from rural areas. At present over 80 percent of secondary schools have boarding facilities, partly because their urban location prevents day attendance by rural pupils. Nevertheless, it is government policy, first, to reduce boarding facilities, second, where such facilities are retained, to phase out boarding and feeding subsidies; and third, to increase book cost at secondary and university levels. In theory, pupil/student access to essential textbooks will be enhanced and sustained by the establishment of revolving

funds to help cover costs. Finally, the understandable concern of the Government with the formal sector has arguably led to insufficient consideration and commitment to nonformula education; i.e., dealing with the issue of illiteracy through mass campaigns, etc. On all four grounds, therefore, there is a prima facie case for anticipating that the rural poor in particular may be disadvantaged by current policies unless specific counter-measures are taken.

It should be recalled that these social service policies are being implemented in a country where 67 percent of rural smallholder are below the absolute poverty line. The negative impact of the SAP on the social sector has already been recognized by the Programme of Action to Mitigate the Social Costs of Adjustment (PAMSCAD). The PAMSCAD arising from a multi-agency mission led by the World Bank and comprising IFAD, ILO, UNDP, UNICEF, World Food Development Administration, focuses on the SAP social impact. There is a clear indication of these agencies acceptance of the need perceived by the Government for supplementary programming in the social sectors. The interventions cover issues related to employment, agriculture and the small farmer by improving rural infrastructure, health provision and functional literacy; education; health; population and nutrition; shelter; and financial policies.

More particularly, in the employment sector, the package specifies placement and training of both retrenched and otherwise unemployed workers; in the public works sector of physical infrastructure, public housing and feeder roads; in the health and nutrition sector, the procurement and distribution of essential drugs and the expansion of supplementary feeding schemes; and in the education sector, rehabilitation of schools, teacher training, mass functional literacy, the establishment of a revolving

fund for the bulk purchase of food for secondary schools, and income-generating activities for university students.¹⁵

In conclusion, it should be stated that the documents on the SAP which are currently available are notably vague in their assessment of the medium-to long-term impact of the smallholder in particular. The strong emphasis placed by the SAP on cost recovery and privatization is bound to increase the small rural producers need for cash. Within current constrain, this need can only be met through greater indebtedness to the informal credit system. It seems reasonable therefore to expect a marked intensification dependency and marginalization. There are no reasons for supposing that the short-term. Supplementary package supplied by the PAMSCAD for the social sector will not have to be renewed. This call for addressing what is perceived as short-term problems in a long-term development perspective, one through which smallholder and the rural poor are a assisted to realize their production potential.

¹⁵ Ibid, pp. 21-24.

Chapter-V

CONCLUSION

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Conclusion

Agriculture plays a primary role in food security at the national level. Besides considerable part of the food security is to meet through the imports of food grain from international market. The country is self-sufficient in the production of certain crops such as the staple roots, tubers, plantain and cereals. But the wheat and rice has been the large volumes are imported items and in addition to this all type of meat such as fish, dairy products, edible oils and onions are imported due to deficiency in production. But Ghana has self-sufficiency in the dairy products.

The agricultural sectors contribute to household incomes through employment and it makes a more than 50 per cent of rural income. Nevertheless, agricultural incomes are among the lowest in the country. The annual increases in the nominal daily wage in the 1980s and 1990s did not match the increases in food prices in most of the years. This led to worse off food security in rural households and as a result the poor households shifting to consume less expensive food and poor quality foods, such as, maize and cassava. This above process threatens physical quality of people and human capital development. This poor nutrition would lead to poor rate of recovery and high mortality rate. This result in low productivity, a low income, food insecurity that reinforces poor nutrition and the cycle continues. In children, poor nutrition is manifested in poor physical growth (stunted), low cognitive ability, low capacity to learn, low productivity of adulthood and the rest of the adult cycle continues.

After the structural adjustment programme, prices of the food grains increased at remarkable rate and it led to affect the quality, quantity of food consumption, particularly poor households.

The national policies and strategies to sustain food security at a high level have concentrated on increasing domestic production and improving the post-harvest food management including setting up Ghana Food Distribution Corporation. It ensures the food security at regional and domestic level.

Agriculture sectors also the major foreign exchange earner that gives the country a capacity to import food. The agriculture sector directly contributed to the food security through the contribution of foreign exchange earnings. The value of exports declined in 1989 from \$881 million to \$816 million, the cost of imports (petroleum products) rose by nearly 20 percent, to \$1.108 billion. The resulting trade deficits largely reflected the effects of declining world market prices on such goods as cocoa. Thus, even though Ghana's cocoa production rose from 153,000 metric tons in 1984 to 300,000 metric tons in 1989, the net benefit of increased production was more than offset by the decline in world market prices. Without the rise in cocoa exports, however, the international trade results might have proved adverse indeed. As a result Ghana's heavy external indebtedness continues to act as a constraint on economic growth.

The SAP has not only increased the level of indebtedness but has increased debt servicing to unrealistically high levels. One major problem resulting from the ERP is the increasing dependency and vulnerability of the economy to external economic factors. Certainly, Ghana's debt problems were exacerbated in 1988/89, which had debt

service to export ratio will fall slightly in the 1990s, assuming that export earning will continue to rise 27 per cent.

In general, SAP targets the smaller provinces as the testing grounds for intervening into the developments. These developments naturally make the significant impacts on the neighbour bigger provinces which shall have to undergo the same pattern of development. Even after the structural adjustment programme the quality of life in bigger province like Northern Ghana in comparison with the other regions was low. Why because the social and other institutional problems would always be prevalent in relation to achieve the development. For the fine evidence, with 19 percent of the nation's population, the northern sector accounted for only 5 percent of public health care with the introduction of user charges at hospitals. The withdrawal of supplementary feeding programmes and increase in food costs further exacerbated the problem. The impact of these measures on the rural poor even in the north-eastern Ghana which was considerable so smaller than the northern Ghana got affected that the health services have become so expensive and inaccessible to the poor mass. So that the regional divide in the development sphere is explicit that the Structural Adjustment Programme itself having all the institutional support provided its reach is limited. This could be the proof that SAP could not break the social barriers across the board.

With the food prices rises associated with the SAP measures, women as mothers and care takers of the family have found it very difficult to afford to buy the required food to supplement declining yields from household farms. As a result, the general level of nutrition and health of many families declined in the region. The introduction of the Genetically Modified Seeds to promote the food production and the food security is the new promise and the part and parcel of the SAP. But it led to greater change in

the food consumption pattern. Diseases related to dietary deficiencies increased, with anemia and malnutrition becoming the commonest disease reported at the Bawku district hospital in 1991. The incidence of child malnutrition in the region also increased from 52 percent in 1986 to 70 percent in 1990 (Ministry of Health 1991).

After the structural adjustment policies, the introduction of school and book user fees, and housing and feeding charges at secondary schools and universities worsened the already limited access to education in the region, for girls in particular. Primary school fees of 500 Cedis per term were introduced in Zorse in 1985. In addition to this, the parents had to provide school uniforms, a chair, a table, books and stationery, which were previously provided free by the government except the uniforms. These expenses were estimated to amount to about the equivalent of 10 pounds sterling in 1991. The government has argued that fees at the primary school level are modest, but with an average yearly income of about the equivalent of 12 pounds in 1991 for women in Zorse, the cost of educating one child equals about a year's income, thus making education inaccessible to low income families.

The above statistics reveals the fact that the service sector is under a greater compulsion to provide its service because of the SAP which has decreased the states investment. On the other way SAP contribution to the industrial sector, trade and commerce and improving foreign exchange has been considerably increased the hope of monetary benefits. The scientific approach of the SAP has not served the social needs as much it was expected as innovative alternative development. Since it helped in improving the conditions of the food production but it could not with the food security.

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SUPPLEMENTARY

Geography of Ghana

Ghana is located in West Africa near the equator and on the Greenwich meridian. It is North West by Burkina Faso (Upper Volta), on the east by Togo, on the south by the A west by La Cote D'Ivoire (Known as the Ivory Coast).

Ghana's total area is 238,537 sq.km (92,100 sq. Miles) its capital city is Accra. Other Tamale and Sekondi-Takoradi. The terrain is composed of plains and scrubland, tropical climate and has a population of about 17.7 million (estimated in 1997).

There are ten regions namely the Northern, Upper West, Upper East, Volta, Ashanti, Western, Central, Eastern, brong-Ahafo and Greater Accra.

Ghana Economy 2002

Economy- overview

Well endowed with natural resources, Ghana has roughly twice the per capita output of the countries in West Africa. Even so, Ghana remains heavily dependent on international financial and technical assistance. Gold, timber, and cocoa production are major sources of foreign exchange. The domestic economy continues to revolve around subsistence agriculture, which accounts for 36% of GDP and employs 60% of the work force, mainly small landholders. Excessively expansionary monetary and depressed cocoa market and continued weak growth in non-traditional exports led to disappointing growth in 2001. Ghana opted for debt relief under the Heavily Indebted Poor Country (HIPC) program in 2002.

GDP purchasing power parity-\$ 39 4 million (2001 est.)

GDP- real growth rate 3% (2001 est.)

GDP-per capita purchasing power parity- \$1,980 (2001 est.)

GDP- composition by sector

Agriculture 36%

Industry 25%

Service: 39% (2000 est.)

Population below poverty line 31.4 %(1992 est.)

Household income or consumption by percentage share

Lowest 10%: 2.4%

Highest 10%: 29.5% (1998)

Distribution of family income-Gini index 39.6 (1998)

Inflation rate (consumer prices) 25% (2001 est.)

Labor force 9 million (2000 est.)

Labor force-by occupation agriculture 60%, industry 15%, and services 25% (1999est.)

Unemployment rate 20% (1997 est.)

Budget

Revenues: %1.603 billion

Expenditures: \$ 1.975 billion, including capital expenditure of \$NA (2001 est.)

Industries mining, lumbering, light manufacturing, aluminum smelting, food processing

Industrial production growth rate 3.8% (2000 est.)

Electricity-production 5.92 billion kWh (2000)

Electricity-production by source

Fossil fuel 30.41%

Hydro: 69.59%

Other: 0% (2000)

Nuclear: 0%

Electricity-consumption 5.484 billion kWh (2000)

Electricity-exports 422 million kWh (2000)

Electricity-imports 400 million kWh (2000)

Agriculture-products Cocoa, rice, coffee, cassava (tapioca), peanuts, corn, sheanuts, bananas; timber

Exports \$ 1.94 billion (f.o.b, 2000)

Exports- commodities gold, cocoa, timber, tuna, bauxite, aluminum, manganese ore, diamonds

Exports- partners Togo, UK, Italy, Netherlands, Germany, US, France (1998)

Imports \$2.83 billion (f.o.b., 2000)

Imports-commodities capital equipment, petroleum, foodstuffs

Imports-partners UK, Nigeria, US, Germany, Italy, Spain (1998)

Debt-external \$5.96 billion (2001 est.)

Economic aid-receipt\$6.9 billion (1999)

Currency cedi (GHC)

Currency code GHC

Exchange rates cedis per US dollar-7,195 (January 2002), 7,170.76 (2001), 5,455.06 (2000), 2,669.30 (1999), 2,314.15(1998), 2,050.17(1997)

Fiscal year calendar year

NOTE: The information regarding Ghana on this page is re-published from the 2002 World Fact Book of the United States Central Intelligence Agency. No claims are made regarding the accuracy of Ghana Economy 2002 information contained here. All suggestions for corrections of any errors about Ghana Economy 2002 should be addressed to the CIA.

Aid as % of GDP	11.7%	(25 th of 133)
Budget Expenditures:	\$2,192 billion, including Capital expenditures of NA (2003 est.)	(82 nd of 179)
(Per \$ GDP):	\$4.93 per \$100	(153 rd of 172)
(Per capita)	\$ 105.60 per person	(150 th of 179)
Budget Revenues:	\$ 1.943 billion	(80 th of 180)
(Per \$ GDP)	\$4.37 per \$100	(153 rd of 173)
(Per capita):	\$93.60 per person	(150 th of 180)
Central bank:	Bank of Ghana	
Currency:	cedi (GHC)	
Currency code:	GHC	
Currency account balance	\$110 million (2003)	(40 th of 114)

(Per \$ GDP)	\$0.24 per \$ 100	(39 th of 113)
(Per capita):	\$ 5.29 per person	(40 th of 114)
Debt-external:	\$7.398 billion (2003 est.)	(54 th of 114)
(Per \$ GDP)	\$0.24 per \$100	(87 th of 113)
(Per capita):	\$5.29 per person	(107 th of 114)
Debt service:	12.73% (2001)	(53 rd of 149)
Distribution of family income Gini index	40.7 (1999)	(33 rd of 149)
Economic aid- Recipient	\$6.9 billion (1999)	(4 th of 142)
(Per \$ GDP)	\$15.52 per \$ 100	(14 th of 136)
(Per capita)	\$332.41 per person	(19 th of 142)
Economic freedom:	1.6(2003)	(115 th of 161)

Economy-Overview

Well endowed with natural resources. Ghana has roughly twice the per capita output of the poorer countries in West Africa. Even so, Ghana remains heavily dependent on international financial and technical assistance. Gold, timber, and cocoa production are sources of foreign exchange. The domestic economy continues to revolve around subsistence agriculture, which accounts for 35% of GDP and employs 60% of the work force, mainly small landholders. Ghana opted for debt relief under the heavily monetary and fiscal policies, accelerated privatization, and improvement of social services. Receipts from the gold sector should help sustain GDP growth in 2004. Inflation should ease, but remain a major internal problem.

Exchange rates: cedis per US dollar-NA (2003), 7,932.7 (2002)
7,170.76 (2001), 5,455.06(2000), 2,669.3(1999)

Exports: \$2.642 billion f.o.b. (2003 est.) (70th of 179)

(Per \$ GDP):	\$5.94 per \$100	(125 th of 175)
(Per capita):	\$ 127.28 per person	(132 nd of 179)
Export-Commodities:	gold, cocoa, timber, tuna, bauxite, aluminum, manganese ore, Diamonds	
Exports-Goods And services:	49%	(44 th of 163)
Exports-High Technology:	14% (1999)	(32 nd of 111)
Exports- Manufactured:	15%	(93 rd of 130)
Exports-Partners:	Netherlands 11.2%, UK 10.7%, Germany 6.2%, Japan 5.2%, Italy 4.6%, Turkey 4.4%, US 4.3% (2003)	
Exports-Primary	85%	(23 rd of 122)
Exports of goods and Services as %	52.24% (2001)	(40 th of 196)
Exports to US:	\$22100000	(121 st of 246)
(Per \$ GDP):	\$0.04 per \$100	(129 th of 169)
(Per capital):	\$1.06 per person	(143 rd of 177)
Fiscal year:	Calendar year	
GDP:	\$44.44billion (2003 est.)	(53 rd of 182)
(Per capita):	\$2141.96 per person	(129 th of 188)
GDP- Composition by Sector-Agriculture	35.4%	(26 th of 164)

GDP- Composition by Sector-Industry	25.4%	(83 rd of 163)
GDP- Composition by Sector-services:	39.2 %(2003 est.)	(139 th of 164)
GDP-PPP:	\$37.9 billion	(69 th of 165)
(Per capita):	\$1825.88 per person	(90 th of 122)
GDP-Real growth Rate:	\$4.5 %(2002 est.)	(58 th of 211)
GDP growth- Duration 1975-2000	0.1%	(95 th of 156)
GDP growth- Duration 1980-2000:	1%	(74 th of 110)
GDP per capita in 1900:	\$462	(42 nd of 42)
GDP per capita in 1950:	\$1193	(39 th of 56)
GDP per capita in 1973:	\$1260	(45 th of 56)
Gross National Income:	\$5.749134 billion (2001)	(97 th of 205)
(per \$ GDP):	\$12.93 per \$100	(131 st of 133)
(per capita):	\$276.97 per person	(112 th of 135)
Growth Competitiveness Score:	3.78	(66 th of 102)
Human Development Index:	0.548	(122 nd of 173)

Imports:	\$3.24 billion f.o.b. (2003 est.)	(73 rd of 179)
(Per \$ GDP):	\$ &.29 per \$4100	(142 nd of 175)
(Per capita):	\$ 156.09 per person	(145 th of 179)
Imports- Commodities:	capital equipment, petroleum, foodstuffs	
Imports-Goods And services:	70%	(23 rd of 163)
Imports-partners:	Nigeria 13.2%, china 9.3%, UK 7.2%, US6.1%, Germany 4.8%, France 4.5%.	
Imports from US:	\$57800000	(85 th of 246)
(Per \$ GDP)	\$0.13 per \$ 100	(96 th of 169)
(Per capita):	\$2.78 per person	(120 th of 177)
Imports of goods and Services as % of GDP:	\$70.48 %(2001)	(33 rd of 196)
Income category	Low income	
Income distribution -Poorest 10%:	2.2% (consumption)	(74 th of 116)
Income distribution- Poorest 20%:	5.6% (consumption)	(73 rd of 116)
Income distribution- Richest 10%:	30.1 %(consumption)	(57 th of 116)
Income distribution- Richest 20%:	46.7 %(consumption)	(50 th of 127)
Industrial production Growth rate:	3.8 %(2000 est.)	(59 th of 127)
Industries	Mining, lumbering, light manufacturing Aluminum smelting, food processing	

Industries- Value Added	25.2 (2001)	(0 th of 185)
Inflation-Duration 1970-1979:	38.8%	(0 th of 157)
Inflation-Duration 1990-2000:	28.4%	(29 th of 158)
Inflation-Duration 2000-2003:	21.1%	(0 th of 164)
Inflation rate- Consumer prices	26.7% (2003 est.)	(7 th of 176)
Informal economy:	38.4%	(37 th of 111)
Macroeconomic Environment index:	3.68%	(63 rd of 101)
Net foreign Investment:	2.1%	(75 th of 133)
Population below Poverty line	31.4 %(1992 est.)	(59 th of 96)
(Per \$ GDP)	0.00 per \$ 10 million	(62 nd of 95)
(Per capita)	1.51 per 1 million people	(70 th of 96)
Population under \$ 1 a day:	44.8%	(10 th of 60)
(Per \$ GDP):	0.01 per \$ 10 million	(18 th of 47)
(Per capita):	2.15 per 1 million people	(20 th of 47)
Population under \$2 a day:	78.5%	(13 th of 60)
(Per \$ GDP):	0.01 per \$10 million	(22 nd of 47)
(Per capita):	3.78 per 1 million people	(25 th of 47)
Poverty-Share of All poor people:	0.78%	(11 th of 80)

Public institution Index	4.44	(53 rd of 102)
Share of household Income –Highest 10%:	30.1 %(1999)	(45 th of 87)
Share of household Income –lowest 10%:	2.2%	(53 rd of 87)
Technological Achievement:	0.14(circa 2000)	(63 rd of 68)
Technological index:	3.21	(77 ^h of 101)
Terms of trade:	47	(88 th of 108)
Tourist arrivals:	325,000(1997)	(84 th of 153)
(per capita):	15.65 per 1000people	(94 th of 119)
Trade balance with US:	\$35700000	(27 th of 246)
(per \$ GDP):	\$0.08 per \$100	(53 rd of 169)
(per capita):	\$1.71 per person	(59 th 177)
Trade in goods:	89.22 %(2001)	(35 th of 197)
Transnational Corporations-Affiliates:	54	(94 th of 188)
(Per capita):	2.60 per 1 million people	(98 th of 127)

Sources:

The Heritage Foundation; World Bank.2002. CIA World Fact book, December 2003: World Bank, 2002.World Development Indicators 2002. CDROM, Washington, DC,United Nations World Statistics Pocketbook and Statistical yearbook; World Investment report 2001, United nations Conference on Trade and Development (UNCTAD).

