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**GHANA'S AGRICULTURAL SECTOR
AND PROSPECTS FOR THE FUTURE**

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**THE INSTITUTE OF
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CAROL LEVIN

***GHANA'S AGRICULTURAL SECTOR AND
PROSPECTS FOR THE FUTURE***

Section 1: Introduction

Ghana's agricultural sector is largely subsistence and rain-fed, and has been characterized by a virtual absence of transformation during the past three decades. Broad macroeconomic policy reforms during the past decade have put a stop to the long-term decline of the 70's and early 80's, but have been limited in their capacity to accelerate agricultural growth, adopt new technologies and develop an efficient marketing system.

In part this is due to neglect of the agricultural sector by government policy makers in the post-structural adjustment era. The major policy thrust here has been to promote private sector involvement in the agricultural sector. Yet the unfavourable macroeconomic environment, in terms of high inflation and high interest rates, has worked against the agricultural sector. In particular, a large government deficit and public sector borrowing have put an intense squeeze on credit availability. This has been most severe for farmers, who are among the most credit constrained.

Section 1 of this paper will look at Ghana's agricultural sector, within the context of some of the IFPRI's recent work on the 2020 Vision for Food, Agriculture and the Environment. Section 2 will look at recent available statistics and conventional wisdom on Ghana's agricultural sector, by exploring trends for five indicators: the growth rate in the agricultural sector:

Preface

The Institute of Economic Affairs is pleased to publish under its series of Occasional Papers, Ghana's Agricultural Sector and Prospects for the Future by Dr. Carol Levin of the International Food Policy Research Institute, and formerly with Ghana's National Development Planning Commission.

The essay examines the performance of Ghana's agricultural sector before and after the Structural Adjustment Programme. It reviews past and present policies of the sector and its contribution to Ghana's Gross Domestic Product (GDP). Dr. Levin concedes that national agricultural policies have been generally development-oriented and that broad macroeconomic policy reforms have ended the long-term economic decline of the 70's and early 80's. She however identifies a number of factors which negate, or at least inhibit, the growth of the agricultural sector. They include incomplete data coverage, underutilized and or inaccessible data, government squeeze on credit availability to farmers, obsolete technology, limited use of fertilizer, and an inefficient marketing system.

Dr. Levin's prescriptions for increasing the overall impact of policies on the agricultural sector emphasize the need to build into them productivity-enhancing and competition-promoting elements. She advocates market-friendly national macro-economic and trade policies, as well as policies that would support the building of the capacity of the private sector to manage agricultural and other resources effectively.

I am delighted to place on record the gratitude of the Institute of Economic Affairs to the Danish Government, through the Royal Danish Embassy in Accra and DANIDA, whose generous assistance made this publication and the research that went into it possible.

Dr. Charles Mensa
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Accra, May 1998

food crop production; commodity prices; national food supply; and agricultural exports. Section 3 will provide a brief overview of current policies and issues that will certainly affect Ghana's prospects in the future. Section 4 analyzes Ghana's prospects for the future, and Section 5 provides some concluding remarks.

- **Section 2: Trends in the Agricultural Sector**

Growth rate. The average growth rate in agricultural GDP for the five year period from 1986 to 1989 was 2.3 per cent. In 1994, the agricultural sector was growing at about 1 per cent a year. In fact the average growth rate for 1990 to 1994 was just 1.1 per cent, primarily reflecting the very dismal year of 1990 (ISSER, 1996). Due to good weather, the agricultural sector grew at 4.2 per cent in 1995 and 3.9 per cent in 1996. Several features of the agricultural sector are worth noting. For two years running, the agricultural sector growth rate exceeded the population growth rate, which is estimated at around 3.5 per cent. This was the result of good weather and a strong performance in the cocoa sub-sector. The growth in production was mainly due to increases in cash crop production. The cocoa sub-sector grew at 11.1 per cent in 1995, and at around 6-7 per cent in 1996. Increases in cocoa production and exports were due to an improved international market and price conditions. After significant increases in 1995, cocoa prices remained at their highest level for 6 years. Despite increased output in Ghana and Cote d'Ivoire in 1995, prices increased reaching their highest level in April 1996 (FAO 1997).

Food Crop Production. Since 1990, there has been an upward trend in food crop production. In 1991 National Gross Production figures from the Ministry of Food and Agriculture (MOFA) showed an increase over 1990 levels of about 100 per cent for all crops. This was partly due to an adjustment in yield parameters by MOFA, following a yield survey they conducted in 1990. The effect has been that national production figures have been on a higher trend line since 1991. However, the trend in food crop production has been upward since the late 1980's. Most production indicators since 1990 show that the trend, both total and per capita, is upward (FAO, 1996; ISSER, 1996; MOFA, 1997).

Prices. A recent study looking at wholesale prices of food commodities in Ghana shows that the real wholesale prices of most commodities have decreased from 1970 to 1990 (Alderman and Shively, 1996). Possible explanations of the declining prices are favourable weather, falling marketing costs, and improvements in transport from geographically remote areas to other markets. Contrary to most conventional wisdom in Ghana, the study indicates that markets appear well integrated, with rice being a major exception, and competitive enough to prevent traders from enjoying excess margins.

The real problem is not one of increasing prices, but price volatility. While seasonal and intra-year price variation is very strong, the volatility of seasonal prices has not increased over time. That is, prices are seasonal, but are not getting worse over time. So there is some indication that some transport and handling costs are falling, with the improvement of roads and availability of more spare parts for trucks, etc. This year, with a sustained diesel shortage, conditions may prove different.

Despite strong production in both starchy staples and cereals, primarily cassava and maize, and declining wholesale prices, food prices to the consumer remain high. Food prices are increasing faster, relative to non-food prices. In 1995, inflation in food prices averaged 44.5 per cent, while inflation in non-food prices was less, at 39.7 per cent (ISSER, 1996). Rising food costs are not necessarily functions of insufficient production. However, they do imply high costs of retailing in times of sufficient production. The relative price of food rises not so much because supply declines, but because supply does not keep up with demand. Demand for food is a function of incomes and population growth rate.

National Food Supply. For the first time since the 1960s, Ghana is reaching national self-sufficiency in food production. Per capita food supply is 99 per cent of desired requirements¹. It is to be noted that these reflect national food availability, and say nothing about household food security issues, or geographic and seasonal distribution of food availability in Ghana.

¹Desired average daily calorie requirements for Ghana for 2375 K cal/caput/day derived from James and Shoeield (1990). For the period 1992-1994 FAO Food Balance Sheets estimate per caput food supply of 2362 Kcal/caput/day (FAO 1996).

Furthermore, population estimates are based on the last census, conducted in 1984.

The composition of the average diet in Ghana is heavily dependent on starchy staples and cereals. Approximately 95 per cent of per capita food supply is from staple foods and vegetable based foods, while only 5 per cent comes from animal sources. This trend has not changed significantly since the 1960s, reflecting in part the weak production performance in the livestock and fisheries sub-sectors; and, of course, the weak purchasing power of consumers to buy higher valued nutrient dense foods.

These figures say nothing about actual household food consumption patterns in the country, as they only reflect national food availability. Food consumption patterns will be strongly influenced by region, season, and socio-economic status. There is little data available to explore household food consumption trends in Ghana.

Agricultural exports. Agricultural exports contributed 42.5 per cent to foreign exchange earnings. Cocoa contributed 27.2 per cent, and timber 13.4 per cent, while Non-Traditional Exports (NTE) including coffee, kola-nut, shea-nut, fish, pineapple etc. accounted for 1.9 per cent. There was a new reclassification of NTE commodities to include coffee, cocoa, products and shea-nut. Including these three commodities for 1996, the value added from Non-Traditional Exports increased from US \$30 million in 1989 to US \$159 million in 1995 and further to US \$276 million in 1996.

Yet the diversification of exports away from traditional exports like cocoa, gold and timber, is a slow process. Using the old classification, that is excluding coffee, cocoa products and shea-nut, Non-Traditional Exports in 1989 accounted for 3.7 per cent of total exports, and in 1995 for 7 per cent (ISSER, 1996).

The share of foreign exchange earned by agricultural Non-Traditional Commodities fell from 45.9 per cent in 1990 to 18.2 per cent in 1996. Meanwhile, manufactured goods accounted for 82 per cent of total Non-Traditional Exports in 1996 (GEPC, 1997). Given the poor performance of non-traditional agricultural exports in Ghana compared to the performance in some of its neighbours, diversifying agricultural exports is on the

Government's agenda,. However, these declining figures for agricultural NTEs indicate a diversification away from agriculture towards manufactured goods. Yet Ghana has the potential to produce and export many agricultural commodities, although the necessary expertise and connections in international marketing and processing are not yet there.

Section 3: Current Policies

Before assessing Ghana's future prospects in the agricultural sector, this section will briefly review the Government's stated objectives and current policies for agricultural development, and then consider some additional issues that will influence Ghana's agricultural sector in the future.

As described by the MOFA, Ghana has adopted a "demand driven national agricultural strategy whose goals are development oriented, productivity enhancing and competitiveness promoting". The development strategy is outward looking, export oriented and at the same time inward looking to broaden demand through increased domestic and foreign markets. The emphasis is on ensuring food availability to meet nutritional requirements (food security) for all Ghanaians at affordable prices" (Dapaah, 1995).

In terms of numbers, the first plan of the Ghana Vision 2020 (1996-2000) sets a 4.0 per cent target growth rate for the agricultural sector. This includes target growth rates of 4 per cent for crops and livestock, 6.8 per cent for cocoa, and 2.7 and 7 per cent for fisheries and forestry, respectively. MOFA would like to achieve a growth rate of 3.7 per cent for the 1996-2000 year period and beyond.

Policies should support the building up of private sector capacity to manage agricultural and other resources effectively, in particular the acquisition and distribution of inputs, production, marketing and agro-processing. Policies should be aimed at better co-ordinated and sustained investment effort, from both public and private sources, to guide Ghana's agricultural development.

Macroeconomic policies will influence sectoral development as well. An unstable macroeconomic environment, despite the best intentions of fiscal, monetary and credit policies, will have a negative impact on agricultural growth. Symptom of macroeconomic instability are high levels of government expenditures and low tax revenues, a high government deficit leading to inflationary pressures, and a government squeeze on credit. According to Killick (1997), statistics show that in 1996 the share of credit to the public sector was 80 per cent.

In addition to government policies, Ghana's growth in the agricultural sector will be affected by a number of other important factors. These include levels of poverty, levels of malnutrition, the rapid rate of urbanization, the rapid rate of population growth, and the issue of property rights.

Poverty is still a problem in Ghana. According to GLSS I and II, national poverty fell from 36.4 per cent in 1987 to 31.2 per cent in 1992. Still, one out of every three persons in Ghana is poor.

Poverty is predominantly a rural phenomenon. In 1992, 67 per cent of the poor lived in rural areas. Sixty per cent of total income comes from agriculture in rural areas. In peri-urban areas, 13 per cent comes from agriculture as well. This does not include wage labourers in the agricultural sector, which would then increase the numbers of people earning their livelihood from agriculture. Farm households are poorer than non-farm households. GLSS III indicates that 37 per cent of farm households were poor, compared to 27 per cent among non-farm rural households. Of these poor farm households, one-third were cocoa farmers.

Malnutrition is still a problem in Ghana. About one-third of all pre-school children in developing countries are malnourished (that is, they are seriously underweight for their age). In this Ghana is no exception. The extent of under-nutrition among children aged 3 to 36 months is 24 per cent for stunting, 28 per cent for being underweight and 12 per cent for being wasted. Recent studies indicate that malnutrition is greatest in rural areas, and most severe in the Northern Region where there are high levels of poverty and a high dependence on agriculture. The Northern Region is

considered the bread basket of the country, and yet the highest numbers of malnourished children are reported for parts of the region.

The Urbanization of Ghana. Ghana's population is becoming more urban every year, and by 2020, urban areas will account for over 50 per cent of the population. The rural population will continue to grow, but the growth rate in urban areas will be higher. It is therefore critical to address poverty and nutrition problems in rural areas before they become urban problems.

IFPRI is currently collaborating with the Noguchi Memorial Institute of Medical Research in a study of urban food security and nutrition. Initial results indicate that urban food insecurity and malnutrition are major problems.

Population Growth. Population growth, along with rapid urbanization, increased incomes and dietary changes, will result in increasing food demand over the next 25 years. This has implications for both increased domestic production and for imports. IFPRI research has shown that sub-Saharan Africa is projected to increase its demand for cereals, meats, and roots and tubers by 150 per cent by 2020. How much of the demand is likely to be fulfilled through developing country production? And how much through net imports of food? Sub-Saharan Africa is expected to triple its net import requirements for cereals because of the poor production performance relative to population growth (Rosegrant *et al*, 1995).

IFPRI's assumptions of projected production and import requirements indicate that per capita food availability will increase in all regions of the world, but that in SSA these increases will be the smallest. Population projections and changing demand patterns have implications for increasing production faster than population increases. Ghana must consider these implications as well.

Property Rights and Natural Resource Management. Policies in these areas are critical for promoting agricultural growth in Ghana, because they influence decisions by individual farmers to invest in sustainable practices. Property rights also influence private sector investment schemes, for example for agribusiness, through their impact on land tenure rights and security. Finally, they are particularly important for promoting women's investments

in agriculture and control over resources. IFPRI and the Land Administration Research Centre at the Kwame Nkrumah University of Science and Technology are currently undertaking a research study of Land Tenure and Natural Resource Management in the Western Region. The results of this study will be available in early 1998.

This brief overview of current policies and persistent issues shows that Ghana is meeting some objectives of agricultural development strategy, while neglecting “the emphasis of ensuring food availability to meet nutritional requirements for all Ghanaians at affordable prices.”

- **Section 4: Ghana’s Prospects for the Future**

This section will evaluate Ghana’s prospects for the future, using four principal conditions identified at a workshop on ‘A 2020 Vision for Food, Agriculture, and the Environment: Issues Facing African Countries’. The workshop was organized by IFPRI and the Conference of Ministers of Agriculture of West and Central Africa, and held in Senegal in late 1994 (Badiane and Delgado, 1995). The participants, ministers, chief directors, researchers, directors of NGOs, representatives from FAO and members from the CGIAR system, highlighted four conditions for boosting agricultural growth on a sustained basis, as:

- Improving the quality of agricultural policies
- Boosting national public investment in agriculture
- Pursuing proactive national and international competitiveness
- Including the poor and malnourished by taking director measures to combat poverty and nutrition problems.
- **Can Ghana meet these four principal conditions necessary to boost agricultural growth on a sustained basis?**

Are agricultural policies stable consistent and analytically based?

Two points will be addressed: *Are agricultural policies stable and consistent? Are policies analytically based?* The Medium Term Agricultural Development Strategy (MTADS) has been the main road map of Ghana's agricultural sector since the early 1990s. It has always seemed to be a rather vague strategy that focuses on the general and not the specifics, and falls short of defining a food and agricultural policy for the country as a whole. In order to address these shortcomings, a new agricultural growth strategy is currently under formulation. This strategy has been 'under construction' since late 1995, and has yet to have its outdoor. Some of the components of this strategy are:

- Increase budgetary resources for rural infrastructure (safe water, feeder roads, post-harvest facilities, electricity) to improve agricultural growth and rural incomes.
- Decentralize delivery of social services and rural infrastructure maintenance (empowerment of local governments).
- Liberalize domestic marketing of cocoa further by privatizing parts of COCOBOD's subsidiary, the Produce Marketing Board
- Improve environmental management in rural areas by reducing deforestation and land degradation.
- Implement direct poverty alleviation measures.

Both the MTADS and the new agricultural strategy lay heavy emphasis on promoting private sector investment in agricultural production, and in promoting NTE's. The MOFA would like to see the private sector re-invest at least 5 per cent of agricultural GDP in the sector annually, and rightly acknowledges the importance of an enabling macroeconomic framework that is pro-agriculture. But merely wishing for a favourable macroeconomic environment is not enough. Perhaps there has been an over-reliance on the assumption that structural change at the macroeconomic level could effortlessly induce positive changes at the sectoral level. However, this depends on a strong and clearly stated agricultural policy which, among other things, promotes the development of markets and the provision of public sector goods such as research and technology.

After the Economic Recovery Programme and Structural Adjustment Policies of the late 1980's, a number of policy levers that had been relied on in the past (perhaps too heavily) to support the agricultural sector, have disappeared from the policy makers' tool kit. And in fact, operating the new set of policy levers to promote faster agricultural growth by encouraging private sector growth and strengthening public sector institutions, has been a challenging task which requires time to redefine a set of policies that will work, and that the GOG can effectively implement.

In short, policies have been stable, and for the most part consistent, (as the cocoa sector moves toward greater privatization) since the early 1990s. Despite their stability and consistency, policies of the past have been ineffective in stimulating the agricultural sector to its greater potential. They have also been weak in raising farmers' incomes and alleviating poverty and malnutrition in rural areas.

Are policies analytically based? Information constraints have been a big frustration for governments and research institutes in Ghana. Many analysts of Ghana's agricultural sector bemoan the non-availability of consistent and complete data for understanding the trends in food supply, food prices and food consumption in Ghana (Tabatabai, 1988; Jones and Ye, 1995; Alderman and Shively, 1996). Given the shortcomings in the data, how can we interpret production leaps, price trends, and interactions between the two? Estimating food balances is difficult due to incomplete data coverage. National supply and demand analyses do not exist due to weak data and information. Yet it is critical to analyse supply and demand for agricultural commodities from both domestic and international modes, in order to assess the impact of policies – both macroeconomic policies and sectoral policies. Last, but not the least, is the ever-irritating problem of inconsistent data across different sources in government.

Examples of information gaps include information on farm gate prices. Producer price information is not collected, nor is information on costs of production. Given the current state of data availability, wholesale prices of various crops at the national level is the best one can come to for producer prices. However, it is difficult to look at supply response if components of production growth cannot be isolated.

Another example of missing data is in the area of Non-Traditional Exports. There is a lack of coverage on production of fruit and tree crops, which are taking on a greater role in Ghana's agricultural sector. Although Government is actively supporting production and export of NTEs, there is scant information available on production figures for agricultural NTEs. Therefore it is difficult to analyse the impact of NTEs on farmers' incomes and on trade-offs between food crop production and cash crop production. Furthermore, there has been no analysis of the impact of NTEs on farmers' incomes by gender, which in turn may have an impact on Household Food Security through women's control of income and resources.

As mentioned earlier, there are no national food consumption studies. GLSS provides information on expenditures and quantities consumed of own-produced foods. It does not provide information on quantities of food purchased, which accounts for a significant share of total consumption for both urban and rural consumers. A number of smaller household studies show some interesting trends in rural and urban consumption patterns in Ghana. These studies, however, are not sufficiently representative, and are therefore of limited usefulness for the guidance of policy makers.

Finally, in cases where data are available, they are often under-utilized or difficult to access. The ministries and research institutes in Ghana are full of capable and well-trained analysts. Yet marrying these analysts to the available data has not happened, and serious gaps in what should be common knowledge in the agricultural sector do exist. It is critical to bring together analysts and the data that do exist, to institutionalize regular analysis of supply and demand in Ghana.

- **Is national public investment in agricultural enough and targeted correctly?**

Agriculture is the largest private business sector in low-income countries. In this, Ghana is no exception. For agricultural growth, market-friendly national macroeconomic and trade policies are necessary. But, to a large extent, the forces that stimulate agricultural growth, including research for technological innovation, extension, infrastructure and finance, depend on sustained long term public action. This, in turn, is critical for profitable private investment (von Braun et al., 1993).

The share of agriculture in total government expenditure declined from around 12 per cent in 1980-1981 to around 4 per cent in 1987-1988, and has continued to drop into the 1990s. The 1997 Budget provided MOFA with €9.1 billion, and expected donor assistance of €70.2 billion (making a total of €79.3 billion), to achieve a targeted growth of 4.3 per cent in the agricultural sector. In 1997, agriculture's share in total government expenditures is estimated to be about 2.9 per cent. While these amounts include foreign donor assistance, they exclude private direct investments in the agricultural sector. Also, the government spends money in the areas of roads and highways (feeder roads) and other services (health, education) directly and indirectly, that also promote agricultural sector development.

Is it enough? It is estimated that in 1997, total agricultural expenditure will amount to about 0.63 per cent of GDP. And yet agriculture contributes 36.9 per cent to total GDP; provides employment for 47 per cent of the active population; and contributes 42.5 per cent to total foreign exchange earnings. This rate of National Public Investment is too low, and must be raised significantly, especially if Ghana hopes to accelerate growth in the agricultural sector.

The decline in expenditure reflects government's reduced role in agriculture. It also raises questions about the division of labour, so to speak, between the public, private and civil sectors in transforming the agricultural sector. The private sector has an important role in producing, marketing and distributing agricultural products. Traders, agribusiness firms, agricultural input and processing companies, seed growers, and farmers themselves, play an important role in one or more of the above activities, including disseminating new technologies developed by national agricultural research institutes. However there are certain activities that cannot be left to the private sector. In particular, the private sector will not develop certain seed varieties and market them. The private sector will not patiently tolerate the long learning process of farmers, traders and consumers to ensure the widespread acceptance of new technologies and new varieties of crops. The private sector will not provide infrastructure to help farmers in remote regions to access markets to purchase inputs and sell their output. And the private sector is unlikely to provide credit in the rain-fed agricultural environments that are uncertain and risky.

The State has some obvious responsibilities for providing the infrastructure and laws under which a private sector can flourish. Despite the heavy-handed intrusion of the State in many areas of Ghanaian agriculture, Ghana still lacks the experience and authority to provide attractive opportunities for the growth of an efficient private agricultural input sector. More importantly, there is a danger of overlooking the crucial role of public sector research and extension for creating conditions that make private agricultural input sector viable (Tripp, 1992).

It is important to understand the evolving role of public and private sectors over time; in particular, to understand the sequencing and changing roles of the public and private sectors over time. Ghana must focus on investing in a few selected areas, such as roads, extension, research and development. Government has some responsibility in providing goods and services that the private sector is unlikely to provide to small-holder farmers until it puts in place the incentives needed to involve the private sector in research and development, and farmer support services.

Is it the right kind? In 1997, 88.5 per cent of public investment in agriculture will be funded by foreign sources. The diversity of funding sources may hinder the implementation of consistent national strategies, because of accountability problems. Furthermore, there has been a decreasing trend in investment in agriculture by most donors – in the 1990s most of the support is toward promotion of NTEs, and not food crop production.

Is it targeted correctly? Investments in Agricultural Research. Before the private sector takes a more active role in research and technology, there is a need for sustained improvement in the national agricultural research system. This will require increased public expenditures for agricultural research. In Ghana, the Government's commitment toward agriculture, in the form of funding agricultural research, has been low compared to other African countries. In the 1980s expenditure on agricultural research declined substantially, accounting for only 0.26 per cent of agricultural GDP. It increased to 0.47 per cent in 1991.

A glance at NARP (The National Agricultural Research Project). This project is a key part of implementing the GOG Medium Term Agricultural Development Programme. Its objective is to promote accelerated

agricultural growth by generating improved technologies that will enhance the productivity of crops, livestock and fisheries. The project will accomplish this by developing the Agricultural Research System. However, despite progress in a number of research programmes, such as a pineapple research programme that has been well executed, severe funding constraints remain. A recent Mid-Project Review, completed in 1995, stated that agricultural research in Ghana is constrained at all levels by inadequate funding to support the number of scientists and other staff on the payroll. Operating budgets are squeezed, and this acts as a major limitation on implementing research plans. Despite recent initiatives, Ghana is under-investing in agricultural research.

- **Is Ghana pursuing proactive national and international competitiveness?**

Ghana's national competitiveness will now be discussed in four areas: cost saving productivity increases; competitiveness in one input market; efficiency in the overall marketing system; and development of new products through agro-processing.

Productivity increases. What has been Ghana's track record at increasing productivity and lowering costs? It is difficult to assess trends in cost of production data since these are not collected on a regular basis. However, most productivity gains are weather-related. Ghana's growth in the production for most crops comes from increases in cultivated area, which is neither economically nor environmentally sound. There is very little use of fertilizer in Ghana, and only 0.2 per cent of total cultivated area is irrigated (ISSER, 1996). Existing technology and knowledge cannot produce all of the food needed for growing populations by 2020. Most increases in food production must come from more efficient use of land already under cultivation. There is large scope for increased yields if more inputs are used, and if production methods are improved. However, as discussed above, accelerated investment in agricultural research and technology is essential to achieve the productivity increases that will be needed,

Competitive input markets: the case of fertilizer. Fertilizer use in Ghana is low and declining. The fertilizer sub-sector was affected by policy reforms

through the removal of subsidies; the entry of private traders into the importation and marketing of fertilizer; and the increase in fertilizer prices. The removal of subsidies together with the continual depreciation of the cedi has led to increasing fertilizer prices from 1985 to today. Recent data on chemical fertilizer imports indicate that the use of fertilizer has not increased since 1990, and has been lower than during the second half of the 1980's (Asante, 1996). The privatization of the fertilizer sector has not yet achieved its original goals, which include market competition, better farmers' services, lower prices, and higher returns to farmers from fertilizer use. Rather than having a competitive market in fertilizer sales, almost by default, the market has become a monopoly: one company imports almost 90 per cent of all fertilizer into the country.

Has Ghana developed lower cost local marketing systems? This is perhaps the most controversial issue in Ghana's agricultural sector. Ask someone what the problem with Ghana's agricultural sector is, and after he says, "It's the macroeconomic environment" he will say, "Markets, markets, markets". Clearly, if production is on the upward swing, and producer prices are falling and consumer retail prices keep going up and up and up, then one culprit is certainly the high cost of retailing food.

Success of market reforms is measured in terms of the development of an efficient marketing system to accelerate and sustain agricultural growth without adverse effects on the income of small farmers. Markets should be efficient, that is the marketing system should be one in which transaction costs are lower than before. Markets should be effective, meaning that small farmers have improved access to inputs and outlets for their output; there is higher marketed surplus and higher incomes for farmers. Markets should contribute to growth in the agricultural sector and at the farm level, as reflected in higher productivity (Golette, 1994).

There have been so many studies of Ghana's agricultural markets. In 1995, Technoserve reviewed almost 100 of these marketing studies conducted in Ghana between 1989 and 1994. There have probably been a dozen more studies conducted since that time. These studies and others indicate that markets in Ghana are not efficient, not effective and not contributing to growth in the agricultural sector as they should. In particular, there is room for improved infrastructure and improved access to working capital, to

increase the volume of transactions. Information on marketed surplus of different crops is virtually non-existent, but most food farmers in Ghana are "market-oriented"; and the share of marketed surplus in total production is substantial. Poor information flows and the riskiness of markets continue to be the primary causes of seasonal price variations. Therefore there is a need to improve information flow and reduce market risks. Producers should respond to high prices by increasing their output; yet farmers are not able to respond to price changes because they do not know them. Farmers have access to wholesale and retail prices, but it is the real producer or farm gate prices that are relevant to them, not real consumer prices.

The success of Structural Adjustment Reforms, including both macroeconomic and sectoral reforms, hinges on the development of private sector capacity. If public interventions are dismantled before the private sector is developed, there is no guarantee that agricultural marketing policy reforms will lead to the transformation of the agricultural sector and accelerated growth. Structural adjustment has been successful in eliminating policies and institutional arrangements that inflate unit costs of production and distribution, yet there remain a number of State-Owned Enterprises that are inefficient and act as a drain on tight government resources. Meanwhile, in some sub-sectors where the State was never very active, like food crop production, there may still be a need for properly targeted short-term support programmes. These have not been forthcoming, although they have been hotly debated.

Agro-processing. There is an awareness among Ghana's policy makers of the need to create innovative products through agro-processing. To date, there is relatively little agro-processing or value adding in Ghana, except for cocoa products which are exported, and a blossoming fruit juice industry (predominantly pineapple). For instance, the value added from non-traditional exports is declining, as was discussed earlier. An initiative to increase agro-processing is reflected in the production and export of cassava chips in 1996. However, at approximately \$100 per metric ton, this is a rather low value added processed good (GRPC, 1997).

- **Will the poor and malnourished benefit from the growth in the agricultural sector (and in other sectors through their linkages with the agricultural sector)?**

It is useful to restate the problem with Ghana's agricultural sector in terms of the human element, namely the reduction of the number of poor people, and the improvement of nutritional status for all. Current policies or programmes in agriculture, health, education and other sectors will have an impact on the poor and malnourished. Because the vast majority of Ghana's poor and malnourished reside in the rural areas, the development of the agricultural sector and how it affects the rest of the economy will be critical determinants of future changes in the poverty level in Ghana.

A successful agricultural strategy will enhance the contribution of agriculture to overall economic growth, and also increase the participation for the poor. Strong linkages between the agricultural sector and non-agricultural sectors, mean that the effects of agricultural growth multiply throughout the economy. IFPRI research has shown that for Sub-Saharan Africa, each additional dollar of income from agriculture adds \$ 2- 3 to the overall economy (Pinstrup-Andersen et al., 1995).

However, there is a strong caveat to this. Where strong biases exist in public investment, credit policy and foreign trade against small-scale, rural-based producers, the link between agricultural growth and the rest of the economy is likely to be weak. The lack of growth in the agricultural sector will be felt in the overall economy as well. Low incomes, poverty, food insecurity and malnutrition are likely to persist. This is the case in Ghana today.

Until those linkages are strengthened in Ghana, there is a need to explore direct measures to combat poverty and malnutrition; and in particular, to link agricultural and nutrition programmes through enhanced cross-sectoral planning at the national and district levels. Some positive steps have been taken recently. As Ghana has recognised in the past, some kind of safety net may be needed to meet the needs of vulnerable households. Since the closure of the PAMSCAD programme in 1994, no poverty alleviation

measures have been implemented, although discussions have been under way since late 1995. In 1997, the GOG is planning to initiate a World Bank funded project on targeted intervention for food security and nutrition through a community-based multi-sectoral operation. This is absolutely a step in the right direction.

On February 19, 1996, Ghana became one of the first African countries to launch the Plan of Action for Food Nutrition (NPA/FN) The overall goal of the NPA/FN is to contribute to the national goal of improving the quality of life for all Ghanaians on a sustainable basis. The specific goal of the NPA/FN is to improve the nutritional status of all Ghanaians.

IFPRI research has shown that in sub-Saharan Africa, there are about 30 million malnourished children, but if things continue as they are today, that number could increase by 50 per cent to reach 43 million in the year 2020 (Rosegrant et al., 1995). The point here is that things cannot continue as they are, and they must change in such a way as to benefit the poor and malnourished.

- **Section 5: Concluding Remarks**

The following are six priority areas from IFPRI's 2020 Action Programme for Sustainable Growth in Ghana's Agricultural Sector (Pandya-Lorch, 1996). In the light of the foregoing discussion, these seem very appropriate.

1. Strengthen the capacity of developing country governments to perform appropriate functions such as establishing and promoting private-sector competition in agricultural markets, maintaining appropriate macroeconomic environments, and enforcing property rights. Governments must get out of areas best handled by the private sector or civil society. NGOs should be recognized as partners in the process.
2. Accelerate agricultural productivity through strong agricultural research systems and effective extension systems. Developing countries must increase their national agricultural expenditures to 1 per cent of the value of agricultural output and 2 per cent

in the long term. IFPRI research shows that the agricultural sector offers tremendous opportunities for accelerating broad-based economic development, and reducing poverty in both rural and urban areas, thereby improving food security.

3. Reduce food marketing costs. As a result of inefficient markets and poor infrastructure, the cost of bringing food from the producer to the consumer is very high.
4. Invest more in poor people. Improve access by the poor to primary education, primary health care, clean water and sanitation. Improve access by the poor to production resources, and to remunerative employment.
5. Promote agricultural sustainability and sound management of natural resources. Governments, NGOs and local communities should work together to establish and enforce systems of rights to use and manage natural resources, and to prevent or reverse land degradation.
6. Expand and re-orient international development assistance. Aid to agriculture is important. Reverse the declining trend of foreign assistance to agriculture. And developing countries must also seek ways to diversify their sources of external funding, and to improve the effectiveness of the aid they receive.

References

Alderman, H. and G. Shively. 1996. Economic Reform and Food Prices: Evidence from Markets in Ghana. *World Development*. 24(3): 521-534.

Asante, E. 1996. Agricultural Input and Output Marketing Reforms in Ghana. Ghana Institute of Management and Public Administration. Accra. Mimeo.

Badiane, O. and C Delgado. 1995. A 2020 Vision for Food, Agriculture and the Environment in Sub-Saharan Africa. *Food, Agriculture and the Environment*.

Discussion Paper 4. Washington, D.C. International Food Policy Research Institute.

Dapaah, S.K. 1995. Overview of Ghana's Agricultural Sector: Historical Perspective and Future expectations. Paper presented at the West Africa Regional Seminar on Agricultural Sector Policy Analysis, 16-24 September, Akosombo, Ghana.

FAO (Food and Agricultural Organisation). 1997 *The State of Food and Agriculture*, Rome.

_____. 1996 *FAO STAR TS. Time Series Data Base*. Rome

_____. 1996. *FAO Food Balance Sheets*. Rome.

GEPC (Ghana Export Promotion Council). *Ghana Export Performance, 1995: Non-Traditional Products*. 1996. Accra

_____. *Ghana Export Performance, 1996: Non-Traditional Products*. 1997. Accra.

Ghana Statistical Service. 1995. *Ghana Living Standards Survey: Report on the Third Round (GLSS 3) September 1991 – September 1992*. Accra.

Goletti, F. Market Reform as a Strategy for Agricultural Growth. Presented at the Workshop on Food Security, Nutrition and Development, 13-14 December 1994, Accra, Ghana.

James, W.P.T. and E.C. Shoefield. 1990. Human Energy Requirements: A Manual for Planners and Nutritionist. Oxford: Oxford University Press.

Jones, C and X. Ye. 1995 Accounting for the Reduction in Rural Poverty in Ghana 1988-1992. Poverty and Social Policy Discussion Paper Series. Washington, D.C.: The World Bank.

ISSER (Institute of Statistical, Social and Economic Research). 1996. The State of the Ghanaian Economy in 1995. Legon: University of Ghana.

MOFA (Ministry of Food and Agricultural). 1997. Production Estimates for Some Crops in Ghana 1991-1996. Policy, Planning, Monitoring and Evaluation Department. Accra.

Pandy-Lorch, Rajul. 1996 IFPRI's 2020 Vision for Food, Agriculture and the Environment. Paper presented at "Towards the World Food Summit 1996 – Conference on Food Security and Sustainable Agriculture", March 7. Gilleleje, Denmark.

Pinstrup-Andersen, P.M. Lundberg and J. Garrett. 1995. Foreign assistance to Agriculture: A Win-Win Proposition. Food Policy Report. Washington D.C. International Food Policy Research Institute.

Presidential Report on Co-ordinated Programme of Economic and Social Development Policies. 1995. Ghana – Vision 2020 (The First Step: 1996-2000) Accra.

Republic of Ghana. The Budget Statement and Economic Policy of the Government of Ghana for the Financial Year 1997. February 1997. Accra.

Rosegrant, M., M. Agcaoili-Sombilla, and N.D. Perez. Global Food Projections to 2020: Implications for Investment. Food, Agriculture and the Environment Discussion Paper 5. Washington, D.C.: International Food Policy Research Institute.

Tabatai, H. 1988. Agricultural Decline and Access to Food in Ghana. *International Labour Review*, 127 (6): 703-734.

Technoserve, 1995 Draft Summary of Findings and Recommendations of Selected Agricultural Marketing Papers in Ghana. Acra. Memeo.

Tripp, R. 1992 Invisible Hands, Indigenous Knowledge and Inevitable Fads: Challenges to Public Sector Agricultural Research in Ghana. Paper prepared for Rockefeller Foundation Social Science Fellows Workshop, 9-13 November, CIMMYT, Mexico.

Von Braun, J., R. Hopkins, D. Puetz and R. Pandya-Lorch. 1993. Aid to Agriculture: Reversing the Decline. Food Policy Report. Washington D.c. International Food Policy Research Institute.

LIST OF ACRONYMS

CGIAR	Consultative Group on International Agricultural Research
COCOBOD	Ghana Cocoa Board
DANIDA	Danish International Development Agency
FAO	Food and Agricultural Organisation
GDP	Gross Domestic Product
GEPC	Ghana Export Promotion Council
GLSS	Ghana Living Standards Survey
GOG	Government of Ghana
IFPRI	International Food Policy Research Institute
ISSER	Institute of Statistical, Social and Economic Research
MOFA	Ministry of Food and Agriculture
MTADS	Medium Term Agricultural Development Strategy
NARP	National Agricultural Research Project
NGO	Non-Governmental Organisations
NPA/FN	Plan of Action for Food and Nutrition
NTE	Non-Traditional Export
PAMSCAD	Programme of Action for Mitigating the Social Cost of Adjustment
SSA	Sub-Saharan Africa

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