

*AFRICAN DEVELOPMENT BANK
USAID, AFRICA BUREAU, OFFICE OF SUSTAINABLE DEVELOPMENT
(AFR/SD/PSGE/FSP)
INSTITUT DU SAHEL/PRISAS
Dept. Of Agricultural Economics, Michigan State University*

WORKSHOP ON AGRICULTURAL TRANSFORMATION IN AFRICA

**ABIDJAN, COTE D'IVOIRE
SEPTEMBER 26-29, 1995**

**EMPIRICAL ANALYSIS OF THE LIKELY FUTURE
EVOLUTION OF AGRICULTURE IN GHANA AND HOW IT
WILL AFFECT THE PROSPECTS FOR LONGER TERM
GROWTH OF AGRICULTURE, THE FOOD SYSTEM AND THE
BROADER ECONOMY**

by

S.K. DAPPAH
Chief Director, Ministry Food and Agriculture
Accra, Ghana

Draft

September, 1995

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DR. S. K. DAPAAH
CHIEF DIRECTOR, MINISTRY OF FOOD AND AGRICULTURE
ACCRA, GHANA.

A DRAFT PAPER

FOR A WORKSHOP ON "AGRICULTURAL TRANSFORMATION IN
AFRICA" IN ABIDJAN, COTE D'IVOIRE,
SEPTEMBER 26 - 30, 1995

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FOR LONGER TERM GROWTH OF AGRICULTURE, THE FOOD SYSTEM
AND THE BROADER ECONOMY*

1. INTRODUCTION

While the rate of economic growth in the Third World may vary widely, all the available evidence point overwhelmingly to the conclusion that the rate of economic growth in developing countries is closely associated with the rate of growth in agriculture*.

2. Over the period 1970-1980, Ghana recorded an average growth rate of 0.2% in her Gross Domestic Product and an average growth rate of -1.2% in her agriculture. Ghana's population, on the other hand increased from 8.6 million in 1970 to 12.2 million in 1980, at an average annual growth rate of 2.6%. The result was a 28% decline in food production per capita between 1970 and 1984. While considerable improvement has been achieved in the agricultural and other sectors since the launching of Ghana's Economic Recovery Programme (ERP) in 1983 a lot more remains to be done.

3. Ghana's Agriculture operates well below its potential due to a number of recurring difficulties in input acquisition and distribution, production, processing, preservation, consumption and marketing (both local and export) of agricultural products that the existing framework of Policies, Research Programmes and Strategies do not appear to have the capacity to resolve satisfactorily on sustainable basis.

4. While there are no magical blue-prints available capable of solving all the real and perceived problems of Ghana's Food and Agricultural Industry instantly, there are several policy initiatives that may be taken to significantly transform the sector.

* See World Development Report 1992 Table 2 pg. 220.

5. Some of these steps are purely informational, some of them are organisational or institutional, some require changes in attitudes, some involve program initiative and yet others involve program evaluation and revision. All of them require a more deliberate and coordinated policy framework than currently exist if Ghanaian agriculture is to be transformed from the present virtual subsistence agriculture into a highly efficient sector capable of providing high quality products in the domestic and world markets at competitive prices on a sustainable basis.

6. Given the foregoing optimism, the objective of this paper is to provide empirical analysis of the likely future evolution of Agriculture in Ghana and how it will affect the prospects for longer term growth of agriculture, the food system and the broader economy given past Policies and Strategies and emerging

post Structural Adjustment Policies and Strategies.

II THE STRUCTURE AND PERFORMANCE OF THE AGRICULTURAL SECTOR

7. The agricultural sector is the dominant sector in the Ghanaian economy in terms of its share of GDP, employment and foreign exchange earnings. For example, the sector employs about 70% of the labour force, contributes about 40% to Gross Domestic Product (GDP) and accounts for over 50% of foreign exchange earnings. In addition, it is an important source of raw materials for manufacturing, and finally the agriculturally dependent rural households (80% of the population) form the largest potential domestic market for textiles and other manufactured products made by agro-industries.

8. In Ghana, the agricultural sector is made up of 5 sub-sectors namely: crops other than cocoa (63% of agricultural GDP), cocoa (14%), livestock (5%), fisheries (7%), and forestry (11%). The non-cocoa crop sub-sector includes: cereals (maize, rice, sorghum and millet); roots and tubers (cassava, yams and cocoyams); industrial crops (tobacco, cotton, kola nuts, oil palm, rubber, groundnuts, copra and sugar cane); horticultural crops (pineapples, mangoes, chili peppers, ginger, lime and oranges) and other crops (plantain, banana, beans, tomatoes, etc. etc.). The fisheries sub-sector includes marine and fresh water products (tuna, shrimps, tilapia, mud fish, lobsters and herrings among others). The forestry sub-sector includes well known tropical timber species such as Odum and Mahogany and hundreds of other well known and lesser known secondary species.

9. Policies affecting the forestry and cocoa sub-sectors are the responsibilities of the Ministry of Lands and Forestry (MLF) and the Office of the President respectively. The Ministry of Food and Agriculture is responsible for the management of the crop, fisheries and livestock sub-sectors which account for 75% of total agricultural GDP.

10. Smallholder farmers on family-operated farms using rather rudimentary technology produce about 80 percent of the total agricultural production. Only some of the industrial crops, such as oil palm, rubber, and pineapples are produced on large corporate-managed estates although smallholders also produce significant shares of these crops, especially palm oil. Over 60% of the 1.9 million farmholders in 1994 cultivated under 1.2 hectares, another 25% cultivated between 1.2 and 2.0 hectares while the remaining 15% had holdings over 2.0 hectares. On average 62% of the holders were males (46%-98% across the 10 Regions) while the remaining 38% (2%-54%) were females.

11. In general, increases in production have been achieved primarily by farmers using more extensive farming methods (especially more land and labour), and only secondly by increases in productivity through the application of improved technology (seeds and fertilizers etc). Fertilizer usage average 6 kg/ha with a wide variation across crops. Despite the success achieved under the ERP, much remains to be done in terms of raising agricultural productivity. This is an area where a more effective agriculture-industry linkages can play a key role. Out of a total land area of 23,853,900 hectares, 13,628,179 hectares representing 57% of the total land area of Ghana is said to be suitable for agricultural production. Total area under cultivation (1994) was 5,300,000 hectares representing 39% of the total area suitable for cultivation. Total area under irrigation (1994) was 10,000 hectares while the area under inland waters is 1,100,000 hectares.

12. The need to rapidly transform agriculture in Ghana is underscored by the fact that Ghana's population is expected to increase from 17 million (1995) to about 36 million by 2020 and thus reduce the agricultural land availability per capita from 0.80 hectares (1995) to 0.38 hectares (2020). This situation will make the traditional shifting cultivation and the limited use of improved technology undesirable from both economic and environmental points of view. Not only is Ghana striving to transform its agriculture from virtual subsistence into a highly productive, efficient and responsive sector of the Ghanaian Economy, it is also initiating steps to significantly change the relative contributions of roots and tubers (55% to 40%), cereals (5% to 10%), industrial crops (1% to 5%), fruits and vegetables (2% to 5%), cocoa (14% to 10%), fish (4% to 10%), livestock (4% to 9%) and forestry (no change at 11%) between the period 1995 and the year 2020 (Table 1). If Ghana succeeds in this effort, the agricultural sector will shift from dependency on roots, tubers, plantains and cocoa to a more balanced situation with cereals, fish, livestock, fruits and vegetables making more significant contributions.

Table 1. Distribution of Agricultural GDP (1995 and 2020)

Commodity Group	1995	2020
	% Contribution to Agric. GDP by Value (%)	% Contribution to Ag. GDP by Value (%)
Roots/Tubers/Plantains	55	40
Cereals	7	10
Industrial Crops*	1	5
Vegetables/fruits	2	5
Cocoa	14	10
Fish	5	10
Livestock	4	9
Forestry	11	11
Total	100%	100%
Overall Growth Rate	1.5% - 2.1%	4% - 6% (projected)

* Industrial crops include Palm Oil, Cotton, Tobacco and Groundnuts.

III EVOLUTION OF GHANA'S AGRICULTURAL DEVELOPMENT STRATEGIES AND POLICIES (1900-1983)

The Colonial Period (1900-1950)

13. The aims of the Department of Agriculture during the colonial period (1900 - 1950) were to educate and to advise farmers, thus assisting them to produce larger and better crops for export. During the colonial period, Government's agricultural policies subordinated the needs of the non-export crop producers to the needs of the emerging urban elites, expatriate food importers and colonial authorities who emphasized the production of export crops. The passing of the poll tax law at the beginning of the century compelled the peasants and fishermen to find wage employment or go into export crop production (cocoa) in order to earn enough to pay their taxes.

14. By 1920 (29 years after the introduction of cocoa into Ghana) cocoa accounted for nearly 83% of the value of exports and duties on cocoa provided sufficient revenue to finance an aggressive food import policy. The basic food requirements in urban and cash crop areas were satisfied by importation of staples such as rice from British Burma, Dutch Indonesia, and India, wheat from America; dried fish and tinned meat from Scandinavia.

15. The agricultural policies pursued during the colonial period were designed to make the Gold Coast Colony a source of raw materials and a protected market for metropolitan manufacturers and farmers. The colonial educational system*, the Government's transportation policy and the bias of Government policies against women who traditionally cultivated most food crops, were designed to shepherd the Gold Coast into a crop export and food import-dependent economy out of which Ghana is yet to emerge.

* The Phelps Stokes team report of 1922 warned that "Agricultural Education is in many respects more vital to Africa than any other kind and neglect of it is one of the most unfortunate failures of Government and Missionary Education".

16. The Watson Commission report which investigated the causes of the urban riots of 1948 deplored "The greater interest displayed in export crops at the expense of the crops grown for home consumption". The report indicated that the life of the colony depended on its food supply and recommended that "work on food crops should take precedence over any further development in export crops". Thus at the time of self-government in 1950, the Gold Coast had had almost half a century of an agricultural policy that emphasized production of export crops, accorded very low priority to local food production but encouraged food imports, disregarded the needs of the countryside and financed

urban infrastructural development through the extraction of rural-based wealth. In other words, the colonial macro-economic policy discriminated against rural based activities such as agricultural production for local consumption.

The Policies During 1st Republican The CPP
Period (1951 - 1966)

17. The policies adopted by the CPP Government under Dr. Kwame Nkrumah to solve the well documented food and agricultural problems in Ghana were strongly influenced by two major events.

- a. During the struggle against colonial rule, the main opposition to the CPP came from the relatively old, rich and independent farmers (Cocoa) backed by their chiefs. On the other hand, CPP's support had its roots among the urban youth (many of whom were unemployed or underemployed), women and other urban groups.
- b. The period of self-government in Ghana coincided with the first time in recorded history that industrialization began to be perceived as the most expedient way to bring about rapid structural changes, high rates of economic growth and economic independence of the emerging countries.

18. These two major events helped shape the CPP Government's policies for solving the economic problems during the period 1951-1966. In the first place, for political and other reasons it was necessary to have an agricultural policy that avoided dependence on small scale farmers. Secondly, the real strategy was to tax agriculture through both direct and indirect means to finance a rapid import-based industrialization which was seen as the solution to the country's need for rapid economic development.

19. Thus in the first Five-Year Development Plan (FYDP) (1951-56), the view was expressed that small scale agriculture could not be modernized and adapted to the needs of an expanding economy solely through progressive improvement of the traditional systems of production and therefore large scale farms under public auspices were to be established to test and demonstrate the feasibility of mechanized farming. An Agricultural Development Corporation (ADC) was subsequently established to promote agricultural development. The ADC's role in establishing estate agriculture and leading the modernization of agriculture was greatly expanded under the second five-year development plan of 1959-64.

20. ADC's large scale production was notably unsuccessful and by 1962, it had accumulated large deficits and was forced to wind up. ADC's failure did not deter the Government and following the declaration of socialism by the ruling party as the country's socio-political ideology in 1961, the Government's agricultural effort was shifted almost completely to a new sector of state and co-operative agriculture, with only token recognition of small-scale farming. The Ministry of Food and Agriculture in fact lost the responsibility of assisting private small scale farmers.

21. The overall policies pursued over the period 1950 - 1966 did not really favour agriculture in general and food production in particular. The bulk of the budgetary allocations to agriculture went to the socialized sector even though its net contribution to aggregate production was less than 1 per cent. The Government's agricultural policies were designed to deal primarily with urban unemployment, (not rural poverty), avoid dependence on the small scale independent private farmers whose political philosophy was often inconsistent with that of the ruling party, and failed to encourage industrialisation based on local raw materials.

The Post CPP Period 1966 - 1981

22. Five different regimes, namely, the National Liberation Council (NLC, 1966 - 1986); Progress Party (PP, 1969 - 1972); National Redemption Council (NRC, 1972 - 1979); Armed Forces Revolutionary Council (AFRC, 1979) and the Peoples' National Party (PNP, 1979 - 1981) followed the CPP over the next 15 years. A careful analysis of the agricultural policies pursued under these regimes indicate that they all tended to favour large scale, capital intensive production over small scale production units and gave little consideration for industrialization based on agricultural surpluses and raw materials. The NRC's "Operation Feed Yourself (OFY)" programme was a courageous attempt at promoting local food production but its implementation favoured large scale farmers through their almost unrestricted access to subsidized formal credit and inputs. The real difference between the agricultural policies of the various regimes was the presence or absence of socialist or capitalist ideology as a motivating force for agricultural strategies and policies pursued.

23. The empirical record shows that all the regimes - civilian or Military, Capitalist or Socialist - tended to give higher

priority to industrialization based on imported raw materials than to agriculture, exploited and controlled the agricultural sector through:

- i. High direct and indirect taxation and the underpricing of agricultural commodities for the benefit of the urban population;
- ii. Concentrated infrastructure and social amenities in the cities;
- iii. Imposed top-down Government schemes; and were
- iv. Unwilling to transfer the administration of marketing, storage, input distribution and credit programmes from the public sector to the private sector.

24. The overriding policy issue of the post-independence period in Ghana has been the ideology of Economic Development - Capitalism or Socialism. However, regardless of the ideology, the state had always intervened actively in both the production and marketing of agricultural commodities. Most of the agricultural programmes and strategies pursued* have tended to be crash programmes designed to respond to specific situations. Not surprisingly

* These include Operation Feed Yourself, (OFY), a number of development plans, Operation New Deal and Operation Green Revolution.

agriculture as a whole failed to respond significantly on a sustained basis thus perpetuating the incidence of agricultural underdevelopment and indirectly economic underdevelopment.

IV EVOLUTION OF GHANA'S AGRICULTURAL DEVELOPMENT POLICIES AND STRATEGIES (STRUCTURAL ADJUSTMENT PERIOD 1983-1995)

25. At the onset of independence Ghana had one of the highest per capita incomes in Africa which would have placed it among the middle-income countries by today's standards. Ghana's per capita income of \$354 in 1950 was the highest among west Africa States and in 1950 was more than double the average for Africa. Even at the time of inauguration of ECOWAS in 1975, Ghana's per capita income of \$427 was second only to Cote D'Ivoire's \$460, but five years later in 1980 her per capita income ranked fifth after the Cote D'Ivoire (\$1150); Nigeria (\$1010); Liberia (\$530) and Senegal (\$450). This situation arose because over the period 1950-80, per capita income grew at only 0.5 percent per year. The slight positive growth was the result of rapid growth between 1950 and the early sixties. Thus per capita growth rate declined from 2.1 percent between 1950 and 1960 to 0.5% from 1960 to 1970 and -1.2 percent between 1970 and 1980. It is therefore not surprising that between 1970 and 1980, agriculture on average decline at -1.2% per annum and effective protection of agriculture was -90%.

26. A continuous decline in per capita income after the early 1960's increased the incidence of absolute poverty, worsened income distribution, and reduced efforts at poverty alleviation. The existing economic situation prior to the launching of Ghana's Economic Recovery Programme in 1983 was the cumulative effect of a downward economic spiral which had its major roots in reduction in the output of the key productive sector of agriculture. This reduction in agricultural output in turn was the result of policy choices which were made based on misdiagnosis of alleged market imperfections in both factor and product markets which resulted in policy-induced domestic distortions inimical to growth, equity and poverty alleviation.

27. On the macroeconomic level, an overvalued exchange rate kept the domestic costs of imported goods low and penalized the export of Ghanaian products. The unwillingness to devalue led to complex systems of import licensing designed to ration scarce foreign exchange resources. The result was extreme isolation of the official Ghanaian economy from the international market, as scarcity and risk premia raised effective market prices for basic commodities to levels far in excess of their international equivalents.

28. Under public sector management, input distribution grew increasingly inefficient. In addition, agricultural producers had to contend with a deteriorating economic incentive structure, as agriculture (especially the industrial crop sector) became

heavily taxed. For example, cocoa farmers in 1983 received 9% of 1970 prices while tobacco farmers in 1984 received 38% of 1970 prices. Producers responded either by reducing acreages (in 1983 cotton production was 25% of its average levels in 1975-77), while tobacco production was 20% of its average levels in 1974-76).

29. The net result of Post-Independence Economic Strategic is that most growth oriented economic activities were squeezed out of the official market onto the parallel market and agriculture was forced to operate well below its production possibility frontier.

30. On assumption of power on December 31, 1981, the Provisional National Defence Council (PNDC), recognized that drastic action was needed to address the fiscal imbalances and economic mismanagement that had characterized the economy.

31. In response to this crisis, the Government of Ghana (GOG) initiated an Economic Recovery Programme (ERP) in April, 1983. The ERP was envisaged to take place in three phases. These phases are:-

- a. short-term economic and financial stabilisation (1983-1985) or the Ad hoc Period);
- b. medium-term rehabilitation of productive capacity (1986-1988 or the Stabilization Period);
- c. liberalization and sustainable growth (1989-1995).

Agriculture Under The Economic Recovery Programme (ERP) (1983 - 1988)

32. For the agricultural sector, the period 1983 - 1985 was devoted to initiating a number of ad hoc programmes designed to overcome the prevailing hunger caused among other things, by the 1983 drought and its attendant bushfires as well as the return of over 1 million Ghanaians from Nigeria. The main objectives were (1) to mobilize all available human and other resources to increase the production of the major staples (maize, cassava, plantain, cocoyam, rice), (2) to reclaim cocoa farms devastated by the 1983 bushfires. Indeed, it became necessary to close down the Ministries before 5 p.m. to enable as many people as possible attend to their farms.

33. The ad hoc programmes had the good fortune of good rainfall and the country became almost self-sufficient in maize and oil palm production in 1984. By 1985, however, the absence of a National Agricultural Policy designed to increase agricultural productivity on a sustained basis was felt since the good harvest of 1984 led to sharp decline in output prices in the absence of a well designed post-harvest management programme to handle the surpluses. Farmers reacted to the low output prices by reducing their production in 1985. For example, maize production which fell to all time low of 141,000 metric tonnes in 1983 increased to 574,000 in 1984 but fell to 411,000 metric tonnes in 1985 due mainly to the adverse effect of the 1984 low maize prices (prices

fell from ₵10,000 per 100kg bag in 1983 to ₵600.00 in 1984).

34. The Economic Recovery Policies initiated by the PNDC in 1983 helped to reverse the downward decline in the production of agricultural commodities such as cotton, tobacco and foodcrops even though the recovery programme placed emphasis on the cocoa, timber and mining sub-sectors.

35. A review of the ERP's performance in 1985, as well as an assessment of medium-term prospects led to the conclusion among other things, that one of the fundamental aims of the ERP over the 1986 - 88 period ought to involve the shifting of the leading edge of policy reform from macro-economic to sectoral concerns, and the laying of emphasis on the creation of the enable environment for renewed, vigorous and efficient growth in the key sectors of agriculture, energy, industry, education and health.

36. The Ministry of Food and Agriculture therefore took the initiative to organise a National Debate on Agricultural Policy Direction over the 1986 - 88 period. The debate resulted in the Publication of GHANA'S AGRICULTURAL POLICY, Action Plans and Strategies, 1986 - 88 in January 1986.

37. During the implementation of the first phase of the ERP, it was found out that the MOFA and other organisations which were created to support the Agricultural Sector were weak and ineffective because of the woeful neglect in the past. The need to strengthen MOFA resulted in an agreement on a programme to tackle short term adjustment issues which were to be supported by a Structural Adjustment Loan (SAL). As part of this sector work, the World Bank undertook an Agriculture Sector Review which identified the main elements of a strategy to promote agricultural development. This led to the launching of a \$53.5 million Agricultural Services Rehabilitation Project (ASRP) in 1987. The emphasis of this project was on strengthening the capacity of the public sector to support Research, Extension Services, Irrigation and Policy Planning, Monitoring and Coordination and to make the required investments for expanded agricultural production.

38. These objectives were to a large extent attained despite initial teething problems encountered notable among which was the unfamiliarity with the IDA procedures by the Project Coordinating Unit (PCU) coupled with under staffing of the Unit.

39. Overall, Ghana's Agricultural Development efforts under the ERP over the period 1983-1988 was a success. The sound macroeconomic policies were enhanced by good weather (adequate, regular rainfall with absence of major outbreaks of drought and pestilence). Consequently, the negative growth rates which tended to prevail during the 1970s were reversed and between 1984 and 1989 total GDP growth averaged 5% per cent per annum with agriculture making significant overall contribution.

40. The overall results of the ERP were impressive:

- a. Foreign Exchange: The foreign exchange rate stabilized at a market-determined rate of about 350 cedis

to the Dollar from the $\text{¢}2.75$ to the Dollar in 1983 resulting in increased inflow of foreign exchange. The increase in foreign exchange was the result, among others, of an increase in the foreign earnings from diversified exports; an increase in capital inflow from bilateral and multilateral sources as well as remittances from abroad. Indeed, in 1989, foreign remittances (\$89 million) were the third largest earner of foreign exchange after cocoa (\$408 million) and gold exports (\$160 million);

- b. **Public Sector:** The public sector withdrew from many marketing activities, reduced government employment through the retrenchment of public sector employees (including 75,000 employees of the Cocoa Marketing Board) and closed several State Owned Enterprises (SOEs) (such as the Ghana Seed Company) as part of its divestiture and privatization programme;
- c. **Fiscal and Monetary:** Prudent policies brought inflation down from the exceedingly high level of 120 percent (1984) to about 37 percent (1990) and government revenues increased while expenditures were brought into line resulting in a modest budgetary surplus in 1987 (including grants) of 4.1 billion cedis (about \$1.3 million);
- d. **Agricultural Production and Marketing:** Good weather combined with incentive prices and flexible exchange rates led to significant increases in both domestic and export marketing of the major crops: cocoa, maize, millet, tuna and other fish, forestry products and non-traditional exports such as horticultural products;
- e. **Administrative and Regulatory:** The tax structure was revised in order to decrease the cost of imports.

41. The overall assessment was that before the private sector will invest the substantial financial resources and skills that will be necessary to ensure sustainable agricultural growth and development, the enabling environment that were established under the ERP needed to be deepened and broadened.

**The Medium Term Agricultural Development Programme
(MTADP:1991-2000)**

42. Under the conviction that there was the need to make progress towards a more meaningful food and agricultural policy in the country, a MEDIUM TERM AGRICULTURAL DEVELOPMENT PROGRAMME (MTADP) was initiated in 1988 as a joint GOG/World Bank project and put in place in 1991 to consolidate the gains made under the economic recovery programme during 1983-1988. This rolling 5-10 year Medium Term Agricultural Development Programme (MTADP) was designed to set priorities in the agricultural sector and to identify key policy and institutional reforms on a continuous basis. The MTADP has thus far provided a framework for more efficient allocation of public and private sector resources. It also provided a focus for policy and institutional reforms in the agricultural sector in order to fully realize Ghana's

agricultural potential. The MTADP also provided a framework for donor assistance in the agricultural sector and rationalisation of the rather unco-ordinated activities of the several agencies that operate in the Agricultural Sector.

43. The major objective of the Government during the Medium Term (1991-1995) was to pursue a demand-driven national agricultural strategy whose goals are development oriented, productivity-enhancing and competitiveness promoting. This is based on the belief that Ghana's vast agricultural potential can only be exploited fully in a systematic, cost effective and sustained manner if and only if Ghana's agricultural production is driven by strong domestic and foreign demand.

44. This domestic and foreign demand driven approach to Ghana's agricultural development was consistent with the observation that at the start of the 1960s, 10% of world agricultural production was traded among nations. By 1980, this figure rose to 17% and it is expected to reach over 25% in 1990s. The significant trend worldwide is in the food industry as opposed to the production end of agriculture where only incremental changes are occurring. The food industry it was noted moved from selling the raw commodity, to selling the partially formulated product, to selling the wholly formulated product. As a result of this shift in the desires and needs of domestic and foreign consumers, there are now significant opportunities for the development of national and regional private companies with limited (niche marketing) product lines as improved market information identifies more and more specialized markets.

For many of the agricultural products produced in Ghana the West African sub-Region offers considerable potential which needs to be further explored through information generated through appropriate research. In the long-run, the survival of Ghana's agriculture depends on being competitive in the World Market where there are growing opportunities for high quality and price competitive tropical agricultural products both processed and unprocessed. Ghana's medium term agricultural development programmes were designed to take advantage of these developments.

45. The Ministry's agricultural development strategy therefore attempted to be outward looking, export oriented and at the same time inward looking in the sense that it sought to broaden demand avenues in both the domestic and foreign markets with the emphasis on attaining food security for all Ghanaians at affordable prices.

46. Indeed, the Ministry believes that there is room for pursuing all the three types of strategies simultaneously in a flexible manner to ensure quick response to both domestic and foreign market opportunities. In this regard the right balance will be determined by the efficiency with which each of the strategies could be pursued on the basis of research results and extent to which the Ministry could use these results to achieve its objectives on a sustained basis.

47. The centre piece of the Ministry's strategy is increased productivity in the acquisition and distribution of appropriate inputs, on farm production, marketing and in agro-processing. In this regard, considerable attention is being given to locally generated technological packages without deliberately ignoring packages developed elsewhere that can be put to good use. In all cases, the emphasis has been placed on building private sector capacity to manage agricultural and other resources effectively.

48. The Ministry strongly believes that Ghana's Agriculture can take off into Self Sustained Growth to the benefit of all Ghanaians be they producers, consumers or distributors provided a more co-ordinated and sustained investment effort can be initiated to guide Ghana's Agricultural Development.

V THE LIKELY FUTURE EVOLUTION OF AGRICULTURE IN GHANA (THE POST STRUCTURAL ADJUSTMENT PERIOD/VISION 2020: 1996-2020)

49. The first 10 years of Structural Adjustment in Ghana (1983 - 1993) recorded a number of impressive economic achievements compared to the overall dismal performance of most African countries. For example, GNP per capita rose from \$320 in 1983 to \$430 in 1993 (34% increase). Average annual GDP growth rate increased from -4.4% in 1983 to 4.8% in 1993, GDP in current US dollars increased from 4,057 million to 6,084 million, Gross Domestic Investment as contribution to growth of GDP increased from 0% to 2.5%, Gross Domestic Investment as percentage of GDP increased from 3.7% to 14.8%, Gross Domestic Saving as percentage of GNP however declined from 3.3% to -1.4%, Value of merchandise exports in millions of US dollars increased from \$503 to 1051 while value of merchandise imports increased from US\$542 million to US\$1728 million over the same period. Comparison of Ghana's performance with that of Thailand, for example, indicates that Ghana will need to do more during the next 10 years in order to accelerate the pace of its economic development. For example, Thailand increased her GNP per capita from \$780 in 1983 to \$2110 in 1993, GDP in current US million dollars more than tripled from 40,043 to 124,864 in 1993.

50. More importantly, Gross Domestic Investment as percentage of GDP in Thailand increased from 30.0% in 1983 to 40.0% in 1993, over the same period domestic savings as percentage of GNP increased from 15.2% to 35.9%. The question is what must Ghana do during the Post Structural Adjustment Period (1996-2020) in

order to move away from Structural Adjustment into a Period of Economic Transformation that will make Ghana a Middle Income Agricultural Economy with per capita income of around US\$2000.

51. In spite of the considerable progress made within the agricultural sector during the period of Structural Adjustment (1983-1995), Ghana's agricultural sector as a whole (from input acquisition, distribution, on-farm production, agro-processing, export, storage, marketing etc) continues to operate at very low levels of efficiency. Furthermore, as a result of the very low level of intersectoral linkages estimated in 1991 at only 13%, and non-integration of agriculture with industry and the relatively underdeveloped support infrastructure, Ghana's agriculture has been estimated by the author to be operating at only 20% of its potential. In specific terms, there is no fundamental reason why Ghana's agricultural sector cannot increase the value of goods and services produced in the sector from the estimated US\$3 billion in 1994 to US\$15 billion. The pre-conditions for achieving this quantum-jump in the agricultural sector include the establishment of enabling macro-economic framework that is PRO-AGRICULTURE i.e. there must be incentive to ensure that at least 5% of Agric. GDP is re-invested in the sector annually by the private sector. In addition the present situation in which the agricultural production processes are de-linked from each other must be reversed to enable the farm level economy to be driven by favourable economic conditions in the broader economy.

52. It was the desire to move the entire economy including agriculture beyond Structural Adjustment into a period of Accelerated Growth during which the economy will be expected to grow at between 8% and 10% in real terms by the Year 2020 that Ghana's Accelerated Growth Strategy (AGS) was initiated in 1993.

Macroeconomic Picture of The Accelerated Growth Strategy (AGS)

53. The broad macroeconomic objectives of the accelerated growth strategy are a real GDP growth of 8 percent by the year 2000; an annual inflation rate of about 5% beginning in 1996 and the generation of balance of payments surpluses over the medium term. In order to achieve these objectives, new policy initiatives designed to improve the growth prospects particularly in the agricultural and industrial sectors, as well as to raise labour productivity in all sectors were expected to be pursued. These policy initiatives needed to be underpinned by a major increases in investment designed to improve and maintain the physical and human infrastructure required for the growth envisaged. GDP growth is projected to accelerate from 5% in 1995, in real terms, to 8% in 2020.

54. Despite a projected increase in per capita income, the share of consumption in GDP was expected to decline from the high level of 90% in 1995 through 86% in 1996 to 77% in 2000. The increase in per capita incomes was to allow the share of domestic savings to increase over this period. Private savings were projected to respond to positive real interest rates, declining inflation and new incentives for savers from the banking and non-banking

financial sectors. Public savings were expected to improve with better containment of spending pressures on the recurrent budget.

55. Investment as a percentage of output was expected to grow from an estimated 15% of GDP in 1992 to around 26% in 2000. It was understood that acceleration of economic growth will require considerably higher levels of investment, especially by the private sector in directly productive activities, with an increasing ratio of investment to production, processing and distribution.

56. Public savings were projected to grow from 3.8% of GDP in 1996 to 6.1% in 2000, as a result of improved revenue mobilization, and measures to contain government expenditure. Private domestic savings were expected to grow from 7.1% of GDP in 1996 to 17.1% in 2000. This was to be attributed to increased savings arising from increases in per capita incomes, private remittances from abroad and positive real interest rates.

Fiscal Policy

57. Government revenue and grants were expected to grow from 14.5% of GDP and stabilize at an average of 17% in the medium to long-term. Clearly, while this revenue effort was expected to mark improvement over those of the pre-ERP era, the revenue/GDP ratio is low by comparison with the fast-growing economies of East Asia.

58. Government expenditure was expected to decline from 17.1% of GDP in 1995 to 15.7% in 2000. This was to entail recurrent expenditure constrain on the government whose share of 10.3% of GDP in 1992 was expected to decline to 7.7% in 2000. Even though Government expenditure as a share of GDP was expected to decline, capital expenditure as a share of GDP is planned to increase from the level of 6.6% of GDP in 1995 to 8.0% in 2000. This was required to finance development projects over the period in support of Accelerated growth. These projects were to concentrate on the rehabilitation and expansion of socio-economic infrastructure in support of the private sector and the productive sectors of industry and agriculture.

59. The fiscal balance was expected to improve from a deficit of 2.6% of GDP in 1995 to a surplus of 1.3% in 2000 in contrast to an average of -5.2% in the preceding 5 years.

Monetary Policy

60. Money and credit policies were aimed at promoting a conducive environment to facilitate the expansion of economic activities. In this connection, policies were to designed to achieve and maintain a low inflation rate, a high savings rate for the economy through positive real interest rates and an appropriate exchange rate.

Agriculture under Accelerated Growth Strategy (AGS)

61. The AGS aimed to raise GDP growth to 8% (in real terms) by the year 2000 and to maintain this rate for the following decade.

To achieve this, the minimum growth rate in the agricultural sector will have to increase from the 2.1 achieved over the period 1983-1995 to about 3.7% per annum between 1996 and the Year 2000.

62. The crops, fisheries and livestock sub-sectors will need to grow at more than double the rate in the recent past. The growth rate of cocoa is expected to be slower, but still substantial, while in the forestry growth rate is expected to be modest due mainly to environmental concerns.

63. Equally, more rapid growth are expected in the industrial sector, with growth rate of mining and quarrying rising to about 15% per annum and manufacturing and construction to nearly 10%. It will be a formidable task to raise agricultural output to 3.7% a year without significant transformation of the sector with more effective linkage of agriculture with industry through agro-processing. If these rates are achieved by the year 2000, the broad industrial sector will be expected to contribute over 20% of GDP, compared with less than 14% in 1995, whereas agriculture's share will drop from 43% to below 33%. A summary of the main targets to be achieved under the Accelerated Growth Strategy is presented in Table 2.

64. Given the dominance of the agricultural sector (43% of GDP in 1995), it is generally accepted that without significant improvement in the sector's performance it will be inconceivable that Ghana can achieve its planned accelerated growth over the medium term.

65. Achievement of accelerated growth must therefore depend on an expanding agricultural sector fuelling more rapid rates of growth in the other sectors of the economy. This will require much stronger linkages between agriculture and the other sectors of the economy and also within the agricultural sector itself, involving increased private investment, improved infrastructural support and well targeted research to remove bottlenecks.

66. Ghana's agricultural economy is very vulnerable as about 90% of agricultural output goes directly in the raw form to final sales and consumption. This is at the expense of agro-industrial processing opportunities which offer the greatest prospects for rapid economic growth and prosperity. The absence of an effective agro-industrial processing capability therefore, constitutes one of the major missing links in Ghana's quest for

TABLE 2
 TARGETS TO BE ACHIEVED UNDER ACCELERATED GROWTH STRATEGY
 BY 2000*

ITEM	1972-1980	1983-1995	1996-2000 (Projected)
GROSS DOMESTIC PRODUCT (c BILLION) \$1.00=→460	-	2,800*	6,900
CONTRIBUTION TO GDP		(\$6.1b)	(\$15.0b)
AGRICULTURE	44	43	33%
SERVICES	37	43	47%
INDUSTRY	19	14	20%
GDP GROWTH RATE	0.2%	5%	8%
AGRIC GROWTH RATE	-1.2%	2.1%	3.7%
INFLATION	34.8%	15%	5%
SHARE OF CONSUMPTION IN GDP		90%	77%
IMPORTS AS % GDP		21.2	25.0
EXPORT AS % OF GDP		15.4	23.0
INVESTMENT (% GDP)		15%	26%
PUBLIC SAVINGS (% GDP)		3.8%	6.1%
PRIVATE DOMESTIC SAVINGS (% GDP)		7.1%	17.1%
Central Government Revenue + Grants (% GNP)	15.1	14.5	17.0%
Total Expenditure as % of GNP	19.5	17.1	15.7%
DEFENCE (% of Budget)	7.9	3.2	3.2
EDUCATION (% of Budget)	20.1	25.7	27.0
HEALTH (% of Budget)	6.3	9.0	12.0
SOCIAL SECURITY (% of Budget)	4.1	11.9	13.0
ECONOMIC SERVICES** (% of Budget)	15.1	19.2	25.0
OTHER (% of Budget)	46.6	31.1	19.8
Recurrent Expenditure (% of GDP)		10.3	7.7%
Capital Expenditure (% of GDP)		6.6%	8.0%

* Compiled from various issues of the World Development Reports, Ghana 2000 and Beyond (1993) and Accelerated Growth Strategy Report (1993).

** Composed of Agric, Fishing, Forestry, Roads, Transport and Marketing.

sustained agricultural growth and development. Studies have shown that agro-industrial activities have the highest potential in terms of forward and backward linkages. With regard to foreign exchange earnings, though cocoa still ranks high, processing of food, crops (especially cassava, fish, fruits and vegetables) can make significant contributions. Both the private sector and the government will need to allocate significant resources to distribution and by-product activities, as the former is a major bottle-neck to development whereas the latter is a serious loss to the economy. In addition to the above activities, for agriculture to grow at an annual rate of 3.7% it will also be necessary to establish internationally acceptable quality standards, including packaging, and product presentation. A Qualitative Assessment of the Current State of Agricultural Development Effort in Ghana is presented in Table 3.

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An Assessment of the extent to which Agriculture can be transformed by the Year 2020

67. An 8% real GDP growth rate by the Year 2000 and beyond accompanied by a 3.7% agricultural growth rate, an inflation rate of 5%, a gross domestic saving rate of 23% of GDP and a domestic investment rate of 26% of GDP can be regarded as very ambitious for any country to achieve and sustain and Ghana is no exception.

68. While these targets are not impossible for Ghana to achieve by the Year 2000 and beyond things cannot be taken for granted. In particular, Ghana cannot continue to do "business as usual" with its agriculture by paying lip service to its importance while pursuing macro-economic policies that are not "agriculture friendly".

Table 3. Qualitative Assessment of the Current State of Agricultural Development Effort in Ghana.

FACTOR	Meat Proc.	Roots/Tubers	Cocoa	Fruits Veg.	Fish-eries	Live-stock	Food Proce	Feed Proce	Oil palm	By Prod. /Leg.	Cereals /Leg.	Dis-tribu.
Qualitative Assess. (scale 1-5)*												
-Improved Production Technology	4	3	1	3	5	4	4	3	2	2	2	4
-Agro-Processing Opportunities	3	4	4	5	4	3	3	3	3	4	2	4
-Transportation Facilities/Cost	5	4	3	5	4	4	3	3	3	4	3	4
-Incentive Prices	4	4	3	4	4	4	4	3	3	4	4	3
-Ext. Marketing Opportunities	5	5	1	4	3	4	3	3	3	4	4	4
-Quality Standards	4	5	1	4	3	5	4	3	3	3	3	4
-Grading Standards	5	5	1	5	4	5	4	4	4	4	4	4
-Packaging Standards	5	5	1	5	5	4	5	5	4	4	4	4
-Market Information Availability	4	3	1	3	4	5	4	4	4	4	3	4
-Private Sector Involvement	4	1	1	1	2	1	1	2	2	4	1	2
-Private Sector Facilities	4	2	5	4	2	2	2	2	4	4	2	4
-Government Support Facilities	4	5	1	5	4	4	5	4	2	5	4	4
-Marketing Skills (National)	5	3	2	4	4	4	4	4	4	4	2	4
-Benefit/Cost Ratio Ranking	4	2	4	3	5	3	2	2	3	1	4	3
-Forward and Backward Linkages	5	3	5	3	3	2	1	1	4	1	4	4
-Level of Risk (Production)	3	4	3	4	5	4	2	2	3	3	3	3
-Level of Risk (Marketing)	4	5	1	5	5	3	4	4	3	2	3	3
-Off Season Produc.Opportunities	5	4	4	2	4	3	3	3	3	4	3	4
-External Market Opportunities	5	4	1	3	2	5	2	3	4	3	3	4
-Real Price trends	2	4	3	4	4	3	3	3	3	4	4	3
-Policy consistency	4	4	3	4	4	3	4	4	3	4	3	4
-Level of implicit/Explicit Taxation	2	1	4	2	2	3	2	2	2	4	2	4
-General Perception	4	4	2	3	4	4	3	3	3	2	3	4
-Export Promotion Opportunities	4	3	1	2	2	4	2	3	3	3	3	4
-Current Research Funding	4	5	1	4	5	3	4	4	2	5	1	5
-Ideal Research Funding	3	1	2	2	2	2	2	2	3	1	3	1
OVERALL BENEFIT/COST RANKING	7	3	12	8	10	6	5	2	9	4	11	1

*1 - Most enabling
5 - Most limiting

69. It is clear from what has been achieved since the launching of the ERP and evidence from other parts of the World that opening markets to competition can be a very positive stimulus, that privatisation in many cases leads to successful businesses and better levels of service for the consumer (local and foreign); that new technology and management methods applied wisely in an economy can bring competitive advantages. But it is equally clear with the limited results achieved in Ghana under Structural Adjustment that such initiatives in uncoordinated fashion by themselves are not going to be sufficient to enable Ghana achieve its targets. The key to achieving the stated targets is IMPROVING GHANA'S COMPETITIVENESS in the production, processing and marketing of agricultural products both at home and in the world market where 99.97% of the world's GDP is to be found. This can be most efficiently achieved through the recognition of the importance of agriculture in both words and deed by Ministers of Finance in particular and the general populace in general.

70. It is worth noting that Ghanaian and the world's consumers are demanding more and more choice from a widening circle of countries whose products and services are increasingly innovative and competitive. If Ghana keeps finding new inspiration, and learn to adapt new research results (approaches), Ghana will be able, over the long term, to attain its targets and raise its current standard of living and quality of life. Ghana therefore urgently needs to keep up the momentum of positive change, look increasingly around for new ideas, new attitudes, new technologies, and new approaches to solving problems and above all take steps to co-ordinate all strategies and programs within the economy in a more purposeful manner than has ever been known in Ghana.

VI. SUMMARY AND CONCLUSIONS

71. To date, the likelihood of having Ghanaian agriculture transformed is greatly limited by unfavourable macro-economic policies that actively discriminate against investments in the agricultural sector and lack of appreciation of the fact that agriculture is much more than farming.

72. Indeed it has been difficult to-date for those in charge of managing the Ghanaian Economy especially staff of the Finance and Planning Ministries to appreciate that issues such as employment, inflation, stability of the currency, balance of payment, political stability that concern Governments and Finance Ministers cannot be adequately addressed without a transformed, efficient, productive and responsive agricultural sector viewed as a continuous process from input acquisition through on-farm production, agro-processing, marketing to the final consumer.

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73. Fortunately for Ghana, the need to give explicit recognition to the vital role a transformed agriculture can play in accelerating the rate of Ghana's overall Economic Growth and Development has now been fully recognised perhaps for the first time since the launching of the Structural Adjustment in 1983.

74. In response to the recognition at the highest level of Government that the performance of the Agricultural Sector cannot be properly assessed in isolation, a Multi Disciplinary approach to the assessment of what needs to be done and by whom to transform Ghanaian Agriculture was scheduled to take place between 6th and 8th September 1995 after collating views from all the 10 Regions of Ghana from people in all walks of life under 7 broad themes as follows:

- i. Complete Review of the Macro-Economic environment as it has evolved during the Structural Adjustment Period to make it more "Agriculture Friendly"
- ii The role the Financial Sector has to play in order to attract significant Investment into Agriculture as a safe and profit-generating sector
- iii What it will take to attract educated people as well as private entrepreneurs whose ability to acquire and use technology, capital and management skills will bring about the critical mass of efficiency badly needed to transform the sector
- iv The most efficient way of securing adequate Agricultural Infrastructure such as irrigation facilities, procurement and handling facilities, agro-processing and serviced agricultural estates, feeder roads, etc and the roles of the private sector and Government

- v The development of satisfactory arrangements for the timely procurement of appropriate agricultural inputs by the private sector with the support of Government
- vi Funding of relevant research to identify and eliminate factors that limit efficiency and productivity in the agricultural sector
- vii Finally, how can Ghana provide the impetus for agriculture to achieve a "quantum jump" aimed at increasing agricultural GDP from the 1994 level of US\$3 billion to about \$15 billion in the shortest possible time.

75. This ground breaking Agricultural Sector Review Meeting will take place under the Chairmanship of the Presidential Advisor on Governmental Affairs, to be attended by all Ministers of State including that of Finance. In addition the Review Meeting is opened to all including Bilateral and Multilateral donor agencies, Non Government Organisations, the entire Financial Sector as well as private entrepreneurs and farmers. It is my view that the political will now exists to use the Budget and Incentives to encourage private sector investment in the entire agricultural sector at levels previously unknown in Ghana. Already an Agricultural Policy Co-ordinating Committee made up of representatives of Trade and Industry, Central Bank of Ghana, Ministries of Finance, Roads and Highways, Transport and Communications, Local Government and Rural Development, National Development Planning Commission has been set up under the Chairmanship of the Minister of Finance assisted by the Minister of Trade and Industry to advise the Minister of Food and Agriculture and also to co-ordinate activities of the Ministry with other Ministries and Organisations whose actions or inactions impact on the Agricultural Sector. These developments point to the high likelihood that Ghana's Agriculture will see significant transformation over the next 25 years.