



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Ghana - Agric.

GIANNINI FOUNDATION OF
AGRICULTURAL ECONOMIC
LIBRARY

FEB 1972

WITHDRAWN

University of Reading
Department of
Agricultural Economics & Management

POLICIES AND INSTITUTIONS IN GHANAIAN AGRICULTURE

H. Mettrick

Development Study No. 9

June 1971

POLICIES AND INSTITUTIONS IN GHANAIAN AGRICULTURE

By

H. Mettrick

First Report of the Reading/Legon Joint Research
Project in Village Development, South East Ghana.

FOREWORD

This is the first of a series of reports dealing with an investigation of agriculture in the southern part of the Volta Region, and the appraisal of possibilities of change.

These reports will be based on studies carried out during 1969-71. A research project (hereafter referred to as Research in Village Development, S.E. Ghana) was jointly sponsored by the Departments of Agricultural Economics in the Universities of Reading and Ghana, and assisted by the Ministry of Agriculture, Ghana and the British Overseas Development Administration. It was designed with the following objectives:-

- (a) to elaborate a programme of development in agriculture which includes suggestions about production patterns, capital investment, economic and social institutions and organisations, designed so as to raise the level of living of the local people by a path acceptable to them;
- (b) perfection of a technique of survey, planning, programme formulation and subsequent liaison that effectively coordinates existing agencies and their programmes with the local extension service and results in fruitful action - a technique which may later be put to more widespread use in rural Ghana.

The personnel taking part in the Project have been drawn from the two Universities and from the Ministry of Agriculture, Ghana. Valuable guidance has been provided by an Advisory Committee drawn from these three institutions. Generous assistance has also been given by the Regional Agricultural Officer and his staff in the Volta Region.

At the time of writing the pattern of research activity has so far included

A field survey of selected villages, preceded by a more widely ranging reconnaissance;

Specialist investigations of

(a) the policy and institutional background to local development,

(b) the technical and economic aspects of certain promising innovations; and

Associated post-graduate studies.

This first report deals with the first specialist investigation. It is based on work done by Hal Mettrick, which included a three-month stay in Ghana late in 1969. The material collected then has been brought up-to-date and expanded to a minor extent. Useful comments on an earlier draft were made by Dr. Blair Rourke of the University of Ghana.

D.S. THORNTON, Project Leader
Department of Agricultural Economics
University of Reading

June 1971.

POLICIES AND INSTITUTIONS IN GHANAIAN AGRICULTURE

Background for the formulation of a local
development programme

Foreword

| | <u>Page</u> |
|--|-------------|
| Chapter 1. <u>PLANS AND POLICIES AT NATIONAL LEVEL</u> | 1 |
| 1.1. Constraints on Government action | |
| 1.2. Review of planning | |
| 1.3. Policy objectives | |
| 1.4. Development strategy | |
| 1.5. Issues in agricultural policy | |
| 1.6. Planning machinery | |
| Chapter 2. <u>THE INSTITUTIONAL FRAMEWORK</u> | 35 |
| 2.1. Decentralisation | |
| 2.2. Local government | |
| 2.3. The Ministry of Agriculture | |
| 2.4. Special crop development Boards | |
| 2.5. Co-operatives | |
| 2.6. Credit | |
| 2.7. Community Development | |
| 2.8. Research | |
| Chapter 3. <u>MARKETING AND MARKETS</u> | 69 |
| 3.1. The marketing system | |
| 3.2. Storage, transportation and processing | |
| 3.3. State intervention in food marketing | |
| 3.4. Price trends for selected commodities | |

| | page |
|---|------|
| Chapter 4. <u>BACKGROUND TO DEVELOPMENT IN S.E. GHANA</u> | 85 |
| 4.1. Physical and social infrastructure | |
| 4.2. Population, labour and employment | |
| 4.3. Land tenure | |
| 4.4. Pattern of farms | |
| Chapter 5. <u>CLOSING COMMENTS</u> | 102 |
| 5.1. The nature of the development problem | |
| 5.2. The planning and implementation problems | |
| <u>APPENDICES</u> | 105 |
| I Regional crop production targets 1971/2 | |
| II Training requirements for technical manpower in the Ministry of Agriculture | |
| III Large-scale units in the Southern Volta region | |

CHAPTER I

PLANS AND POLICIES AT NATIONAL LEVEL

1.1. CONSTRAINTS ON GOVERNMENT ACTION

(a) Political considerations

The most significant event in Ghana's recent history was the police and military take-over on 24th February, 1966 which removed the Convention People's Party of Kwame Nkrumah and set up the National Liberation Council. Its importance lay not simply in the shift in ideology, but in the sense of a new beginning which caused a fresh look to be taken at many aspects of Ghana's administrative and development policy. There are few Ghanaians who would deny that changes were necessary. Apart from the important political and ideological questions, the economic situation was such that "external economic relations had practically collapsed by 1965."

There can be no doubt of the severity of the economic constraints under which the Government has been operating since the coup and these will be examined below. But there have also been constraints of a political or even socio-psychological nature. These are subtler, but no less binding.

To begin with, there has been the impact of experience under the Nkrumah regime on general policy-making. That they have a profound effect is unquestionable; there is a very real desire to profit from the mistakes of the past and to ensure that they are not repeated in future. There have been a large number of commissions of enquiry in the last five years into the functioning and malfunctioning of a variety of Ghanaian institutions with a view not only to remedying the defects of the particular institution, but also to learning lessons which can be put into practice elsewhere.

It is fashionable now to see very little of value in any of Nkrumah's initiatives, but there are dangers in this. One is of a negative response to the past, an assumption that anything with an Nkrumah label attached to it is necessarily bad. The second danger is of an over-reaction to the past. In the world of politics, any conflict is inevitably presented in over-simple terms - the more violent the conflict the more the issues tend to become polarised. In this case part of the cause for past failures might be analysed correctly, but some of the complexities might be obscured. If the errors of the pre-coup period are seen as only springing from the "C.P.P.'s over peculiar version of socialism" or from its "pandering to the whims of one man"¹

1. Although these words are quoted from the Progress Party Manifesto, it is not suggested that the P.P. is guilty of the over-simplification referred to.

it is unlikely that the failings will be fully analysed. An example is the rejection of direct participation of Government in large-scale enterprises as a main spearhead for agricultural advance. Experience would certainly suggest a rejection of public participation in production, but it should also be asked whether a continued emphasis on large-scale enterprise in any form is desirable.

The effect on the Volta Region of the Progress Party's victory at the elections in 1969 is of particular interest in the present context, but it would be premature to draw conclusions. Volta Region was, of course, a major stronghold of the opposition National Alliance of Liberals. The Progress Party has promised that "No area of the Country will be neglected because it has not supported the Progress Party". There are two good reasons why the Government might give substance to this promise. The first is that the Progress Party may hope to win support in the Region; it now needs to demonstrate that it is a national party and not an Akan party. The genuine political substance of each of the parties will only emerge over time, and the victor in this situation has a considerable advantage over the loser in that he can pre-empt all the best tunes. The second reason stems from the continuing significance of the National Liberation Council (in spite of its having officially dissolved itself) on which the Ewe people of the Volta Region were very well represented.

(b) Economic Constraints

Recent history is also relevant, of course, when discussing economic constraints on development. The present shape of the Ghanaian economy and the economic problems which the Government has to face are very much a consequence of past economic policies. It is important, from a planning point of view, to understand how the Government's freedom of action is circumscribed. The Two-Year Development Plan 1968-70 argued that, in addition to the general constraints which are common to all low-income countries, (such as capital scarcity, a low saving rate, a high rate of population growth, illiteracy, shortage of highly skilled labour, unemployment and underemployment, weak organisational capacities, and large differences in personal and regional incomes,) Ghana had four particular constraints: namely the size of the foreign debt, the dependence on cocoa, the degree of under-utilisation and redundancy of some investments, and the over-centralisation of decision-making. The first three of these constraints are referred to in the following paragraphs. The fourth is discussed at length in Chapter 2.

(1) The Balance of Payments and the foreign debt

In recent years the shortage of foreign exchange has been a crippling constraint on the Ghana Government's freedom of economic manoeuvre. The principal means used to tackle the problem have been a devaluation of the cedi (by 30% on 8th July 1967), a rigid control of imports¹ and monetary and fiscal policies directed towards holding back domestic demand. The severe effects on the growth of the Ghanaian economy are most dramatically illustrated in the fall of gross domestic fixed capital formation (mainly buildings and construction) from N¢ 250m to less than N¢ 150m (at fixed prices) between 1968 and 1969. There has also been a decline in real GNP per head. In no year 1962-1968 was there an increase in GNP per head (at constant prices) and in 1968 it was 7% lower than in 1962 (see table 1.)

TABLE 1. NATIONAL PRODUCT AND CAPITAL FORMATION 1960-68 (N¢m at 1960 prices)

| | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 |
|--|------|------|------|------|------|------|------|------|------|------|
| Gross National Product | 946 | 976 | 1028 | 1056 | 1085 | 1093 | 1099 | 1116 | 1125 | 1158 |
| Gross Domestic fixed capital formation | 194 | 200 | 182 | 216 | 221 | 250 | 207 | 154 | 142 | 147 |
| G.N.P. per caput | 141 | 142 | 145 | 145 | 145 | 142 | 138 | 137 | 134 | 135 |

Source: Economic Survey (1968 and 1969) Central Bureau of Statistics, Accra 1969, 1970.

An important aspect of the Ghanaian balance of payments problem is the burden of foreign debt. It is this rather than the wider balance of payments problem which tends to be given publicity. However, it can be argued that a serious foreign exchange problem exists independently of the debt burden, and that a shortage of foreign exchange will be a particularly serious constraint on Ghana's growth during the foreseeable future, even if a considerably greater degree of debt rescheduling or refinancing is achieved. For this reason the balance of payments is treated here as the basic constraint and external debt as an aspect of this.

It is the structure as much as the total size of the foreign debt which has given cause for concern. Table 2 demonstrates the predominant role of suppliers' credits amongst the Government's foreign liabilities. These credits are, in general, medium term loans made by contractors or suppliers of goods

1. A switch from the wide applicability of import licensing to a more flexible policy of discouraging imports by import duties was announced in the 1970-71 Budget Statement, August 1970.

with repayments spread over five to six years. The result of the predominance of these medium term loans was that the external debt structure inherited by the N.L.C. in February 1966 was one involving a heavy bunching of service payments in the years immediately following, with a peak of NØ 92m in 1968. In view of the extremely precarious balance of payments position, this was an insupportable burden and the Government sought arrangements to spread it through time. Three rescheduling agreements were reached. In the third in 1970, the creditor countries gave a further 50% relief on debt servicing during 1970/1 and 1971/2 over and above the agreements reached in 1966 and 1968. In addition a number of projects¹ financed by suppliers' credits which were not yet begun or only partially completed were cancelled or suspended. The effect of these measures has been considerable alleviation of the short-term problem, but none the less, debt-servicing will continue to put a severe strain on the balance of payments. The N.L.C. undertook to honour the financial obligations of the previous regime. The new Government has indicated, however, that it is prepared to consider revoking contracts which it feels were grossly unfair to Ghana and has already done this, in fact, in the case of the Drevici group of companies. It remains to be seen how far internal political pressure will grow to shake off this millstone which will, as time goes on, seem more and more oppressive at least to the younger generation of Ghanaians.

TABLE 2. GOVERNMENT FOREIGN LIABILITIES AS AT THE END OF YEAR (NØm.)

| | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 ⁽¹⁾ | 1968 ⁽¹⁾ | 1969 ⁽¹⁾ |
|--------------------------------------|-----------|-----------|-----------|------------|------------|------------|---------------------|---------------------|---------------------|
| Joint Consolidated Fund | 10 | 9 | 10 | 11 | 12 | 12 | 15 | 16 | 7 |
| Government Stocks | 6 | 6 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| I.M.F. Drawings | - | 10 | 10 | 10 | 10 | 34 | 45 | 67 | 67 |
| Volta River Project loan | - | - | 16 | 32 | 46 | 55 | 70 | 68 | 66 |
| Suppliers' Credit ^{(2) (3)} | - | - | - | 286 | 301 | 284 | 341 | 325 | 307 |
| Counterpart Funds | - | - | - | 5 | 7 | 8 | 11 | 16 | 52 |
| Total | 16 | 25 | 38 | 346 | 378 | 395 | 485 | 495 | 502 |

(1) Based on post devaluation new cedis NØ2.45 = £1 Sterling

(2) Data in respect of 1960-63 are not available

(3) Provisional

Source: Economic Surveys 1968, 1969

At independence Ghana inherited a large sterling balance, but this was quickly run down. Reserves of foreign exchange which were £G 170m at the end

1. The Regional Food Storage Centre at Ho was one of these.

1959 had fallen to £G72m at the end of 1962 and had virtually disappeared by the beginning of 1966. It was, of course, perfectly reasonable for the Ghana Government to run down its excess reserves of foreign exchange. Economists who criticise its policies during this period do not argue with this, but are critical of the way in which the reserves were spent and of the policies which allowed them to reach such a low level.

Current account balance of payments figures from 1960 to 1969 are shown in Table 3. The notable improvement made during 1966-8 in the size of the deficit was achieved by a striking reduction, by almost 33%, in the import bill. In 1968 Ghana showed a visible trade surplus of N¢28m, which rose to N¢43m in 1969.

Projection for the years 1969-1973 of Ghana's balance of payments were prepared by the World Bank in 1969 (Table 4.). Although already out of date the projection is still valuable in laying bare the structure of the balance of payments situation.

The critical role of cocoa is obvious. Ghana's economic problems during the period 1960-65 were exacerbated by erosion of the terms of trade. The export price index fell by nearly 25% as cocoa prices slumped, whilst import prices rose by 18%. Since 1965 cocoa prices have shown an enormous increase, rises being particularly marked in the latter part of 1968 in response to the bad weather and expected short crops in West Africa. The London price for Ghana cocoa rose from £305 per ton in August to £464 per ton in December 1968. The average price for 1969 was £422. As discussed in the next section the price Ghana receives for her cocoa is closely related to rises and falls in production. None the less whilst prices remain buoyant it is anticipated that Ghana's foreign exchange earnings will receive a considerable boost. The value of cocoa exports in 1968 was N¢214m compared with N¢149m in 1965, N¢126m, and N¢156m in 1967.¹ As a result, the World Bank projected a current account surplus for 1970 of N¢ 50m and an overall balance of more than NC/100m. However, the current surplus was expected to disappear quickly thereafter with future declines in cocoa revenue.

It will be useful to examine some of the other components of these projections. Exports other than cocoa were projected to rise at 6% a year. While reasonable, these export earnings are also subject to violent fluctuations. (Non-cocoa exports of N¢60m in 1966 were more than doubled in 1968,) Another component about which there must be considerable uncertainty is the amount of

1. The value of cocoa exports in 1969 was in fact N¢246m.

TABLE 3

BALANCE OF PAYMENTS 1960-69 NØm. (Post-devaluation)

| | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 |
|----------------------------|-------|--------|-------|--------|-------|--------|--------|-------|-------|-------|
| Balance on current account | -95.5 | -150.7 | -81.2 | -131.0 | -97.0 | -230.2 | -128.7 | -86.6 | -51.5 | -60.4 |

Source: Bank of Ghana Annual Reports

TABLE 4

BALANCE OF PAYMENTS PROJECTIONS, 1969-73 (NØm.)

| | 1969 | 1970 | 1971 | 1972 | 1973 |
|--|------|------|------|------|------|
| Exports (f.o.b.) | 370 | 464 | 429 | 409 | 407 |
| Cocoa | 255 | 340 | 300 | 275 | 265 |
| Timber | 35 | 40 | 41 | 42 | 42 |
| Gold | 30 | 32 | 34 | 34 | 38 |
| Diamonds | 15 | 16 | 17 | 20 | 22 |
| Other | 35 | 36 | 37 | 38 | 40 |
| Imports (c.i.f.) | -340 | -358 | -355 | -406 | -434 |
| Other current payments (net, excluding interest on external debt) | -54 | -55 | -57 | -56 | -59 |
| Balance on Current Account (excluding interest) | -24 | +51 | -23 | -53 | -86 |
| Debt Service (Principal + Interest) | -39 | -42 | -47 | -56 | -65 |
| Private Capital (net) | 18 | 21 | 38 | 25 | 26 |
| Official Capital | 65 | 75 | 75 | 75 | 75 |
| Overall Balance (Money movements) | +20 | +105 | +43 | -9 | -50 |

Source: I.B.R.D. "The Current Economic Position and Prospects of Ghana" pp. 48,51. (Quoted in E.N. Omaboe 'Development in the Ghanaian Economy' (between 1960 - 1968. Ministry of Economic Affairs, Accra 1969)

Note: There is a mistake in the 1971 figures. It appears that the import figure of 355 should read 395.

overseas aid which will be forthcoming. In view of the present world climate for aid it seems unlikely that Ghana will be able to average an inflow of N¢75m a year. Since the coup it has been fashionable for overseas aid donors to take an interest¹ in Ghana's economic recovery, but there will be many other claims on funds as time goes on.

It is, however, the import bill which is the most intractable item. It has been remarked already that Government policy since 1965 resulted in marked decrease in imports. The tendency for imports to rise again in 1969 shows the difficulty of restraining imports when trying to bring about development in a country like Ghana. The composition of imports for the years 1964-1969 is shown in Table 5. It must be remembered in making comparisons between years that the cedi was devalued by 30% in July 1967 which means that the prices of imports thereafter would be inflated by more than 40%. The effects of the Government's deflationary policies can be seen on consumer goods, other than food and private vehicles, on construction materials and on capital equipment. Items which did not suffer a serious reduction are food, private vehicles, fuel and lubricants, and particularly raw and semi-finished materials, except for those for the construction industry. Increases in imports of some of these raw materials can be directly related to a decrease in imports of the finished products for which they are substituting, including tobacco, textiles and footwear. For these one might expect a permanent shift in the structure of imports. It remains to be seen, however, how effectively Ghana can promote efficient import-substituting industries².

These changes in the import pattern have taken place in the context of a fairly savage deflation. Total employment in establishments employing more than ten persons fell from 392,000 in 1965 to 356,000 in 1966 and only reached 402,000 in 1969 in spite of a high rate of growth of the potential work force. In construction there was a fall of over one-third in the numbers employed. Reflation such as is now beginning will inevitably cause an increase in the pressure to import.

Thus, Ghana's balance of payments problem is no short-term phenomenon. The situation was summed up by Tony Killick referring to 1965 but with relevance to today "..... Ghana's present balance of payments difficulties are the joint outcome of an over expansion of domestic demand and an economic structure that creates a high dependence on imported goods and a low capability of increased export earnings. Essential to any fundamental solution, therefore,

1. The amount of cash forthcoming need not be proportional to the interest shown.
2. One expatriate firm calculated some time ago that a domestic textile industry in Ghana using imported raw materials would be more expensive in terms of foreign exchange than importing the finished product.

TABLE 5

IMPORTS BY END-USE 1964-68

| | 1964 | | 1965 | | 1966 | | 1967 | | 1968 | | 1969 | |
|---|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| | NZ000 | % | NZ000 | % | NZ000 | % | NZ000 | % | NZ000 | % | NZ000 | % |
| Non-durable Consumers' Goods: | | | | | | | | | | | | |
| Food, drink and tobacco | 29,159 | 12.0 | 27,432 | 8.6 | 30,985 | 12.4 | 32,136 | 12.3 | 34,607 | 11.0 | 37,088 | 10.5 |
| Textiles and Clothing | 28,998 | 11.9 | 43,826 | 13.7 | 22,760 | 9.1 | 20,810 | 8.0 | 22,013 | 7.0 | 25,120 | 7.1 |
| Others | 13,509 | 5.6 | 20,743 | 6.4 | 14,260 | 5.7 | 18,507 | 7.1 | 19,338 | 6.2 | 25,493 | 7.2 |
| Total | 71,666 | 29.5 | 91,999 | 28.7 | 58,005 | 27.2 | 71,454 | 27.4 | 75,958 | 24.2 | 87,701 | 24.8 |
| Durable Consumers' Goods: | | | | | | | | | | | | |
| Private vehicles and accessories | 3,156 | 1.3 | 5,460 | 1.7 | 5,238 | 2.1 | 8,633 | 3.3 | 7,141 | 2.3 | 10,911 | 3.1 |
| Other | 6,762 | 2.8 | 12,428 | 3.8 | 4,409 | 1.7 | 5,629 | 2.2 | 7,513 | 2.4 | 8,428 | 2.4 |
| Total | 9,918 | 4.1 | 17,888 | 5.5 | 9,647 | 3.8 | 14,262 | 5.5 | 14,654 | 4.7 | 19,339 | 5.5 |
| Raw and Semi-finished Materials: | | | | | | | | | | | | |
| Materials for food, drink, industry, tobacco | 15,420 | 6.4 | 13,312 | 4.2 | 12,893 | 5.1 | 17,897 | 6.9 | 25,407 | 8.1 | 25,552 | 7.2 |
| Materials for agriculture | 2,666 | 1.1 | 5,184 | 1.6 | 5,760 | 2.3 | 10,774 | 4.1 | 7,979 | 2.5 | 7,214 | 2.0 |
| Materials for mining and manufacturing services | 23,078 | 9.5 | 32,854 | 10.3 | 27,457 | 11.0 | 41,913 | 16.1 | 63,259 | 20.1 | 72,226 | 20.4 |
| Materials for construction | 41,598 | 17.1 | 49,339 | 15.4 | 39,895 | 15.9 | 29,480 | 11.3 | 27,295 | 8.7 | 36,964 | 10.4 |
| Total | 82,762 | 34.1 | 100,689 | 31.5 | 86,005 | 34.3 | 100,064 | 38.3 | 123,939 | 39.4 | 141,958 | 40.0 |
| Capital equipment | 64,900 | 26.6 | 96,619 | 30.2 | 76,637 | 30.6 | 59,887 | 22.9 | 78,261 | 25.0 | 82,729 | 23.3 |
| Fuel and lubricants | 13,973 | 5.7 | 12,857 | 4.0 | 10,353 | 4.1 | 15,352 | 5.9 | 21,220 | 6.7 | 22,664 | 6.4 |
| Total imports | 243,219 | 100.0 | 320,051 | 100.0 | 250,647 | 100.0 | 261,019 | 100.0 | 314,032 | 100.0 | 354,391 | 100.0 |

Source: Economic Surveys 1968 and 1969

is a structural change that would reduce dependence on imports and increase export earning potentialities."¹

(2) The Dependence on Cocoa

The crucial role of cocoa in the Ghanaian economy has already been referred to. It accounts for almost two-thirds of visible export earnings. It also provides a significant proportion of Government revenue. Ghana is the world's major producer of cocoa; in the first five years of the 1960s it accounted for more than 36% of world production, although the proportion has fallen off somewhat since then.

The world cocoa market is characterised by chronic price instability, not only from season to season, but also over much shorter periods. This instability has caused successive governments² to feel that Ghana is over-dependent on cocoa and to put diversification amongst their policies for agricultural development. How seriously they have implemented this policy and how effective they have been in reducing the dependence on cocoa is another question. The form in which Ghana's national income accounts are presented does not allow us to determine the precise contribution of cocoa to the national product.

However, figures³ for the period 1955-51 are available showing a contribution of cocoa to Gross Domestic Product (at market prices) of something like 14%. It has been suggested that in 1951 Ghana's National product was more dependent on cocoa than in 1930⁴. Cocoa production which had been stagnant at around 230,000 tons for something like 35 years (apart from the war years) suddenly jumped in the early 1960's to 430,000 tons. It reached a phenomenal 571,000 tons in 1964-65 (similar increases were shown in other West African countries), fell to 400,000 tons in the next three years and was down to 334,000 and 370,000 tons in 1968-69 and 1969-70 respectively. In view of price and quantity fluctuations, comparison of relative dependence on cocoa production must cover a rather long period to be meaningful. If we assume that there is no secular tendency for cocoa prices

1. Birmingham W, Neustadt I., and Omaboe E.N. - A Study of Contemporary Ghana Vol. I The Economy of Ghana, London, 1955, p 429.
2. See, for instance, the colonial agricultural policy of 1950-51, quoted by La-Anyane in "Issues in Agricultural Policy", in Background to Agricultural Policy in Ghana, Proceedings of a Seminar organised by the Faculty of Agriculture, University of Ghana, Legon 1969 or the Seven Year Plan.
3. The Walters Report quoted in Birmingham, Neustadt Omaboe, op cit Vol I p 56.
4. Jones Cfori-Atta "Some Aspects of Economic Policy in Ghana 1957-61". The Economic Bulletin of Ghana, Vol XI No. 3 1967 p43.

to rise, the fact that the physical production is no longer increasing suggests that cocoa is contributing a diminishing proportion to national income. Whether this is a trend which it is desirable for the Government to encourage needs looking at in further detail.

It is the fluctuation of cocoa prices which is usually stated as the reason for adopting a policy of diversification.¹ Receipts from sales of cocoa tend, however, to fluctuate less violently than prices because price fluctuations are, in general, caused by variations in supply. In addition, something like two thirds of world cocoa production come from Ghana and neighbouring West African countries with similar weather conditions. Thus when prices rise or fall in response to a decrease or increase in world production (only proportionately more because of instability of demand) Ghana's production also falls or rises thus offsetting to some extent the change in price. This is demonstrated in Table 6.

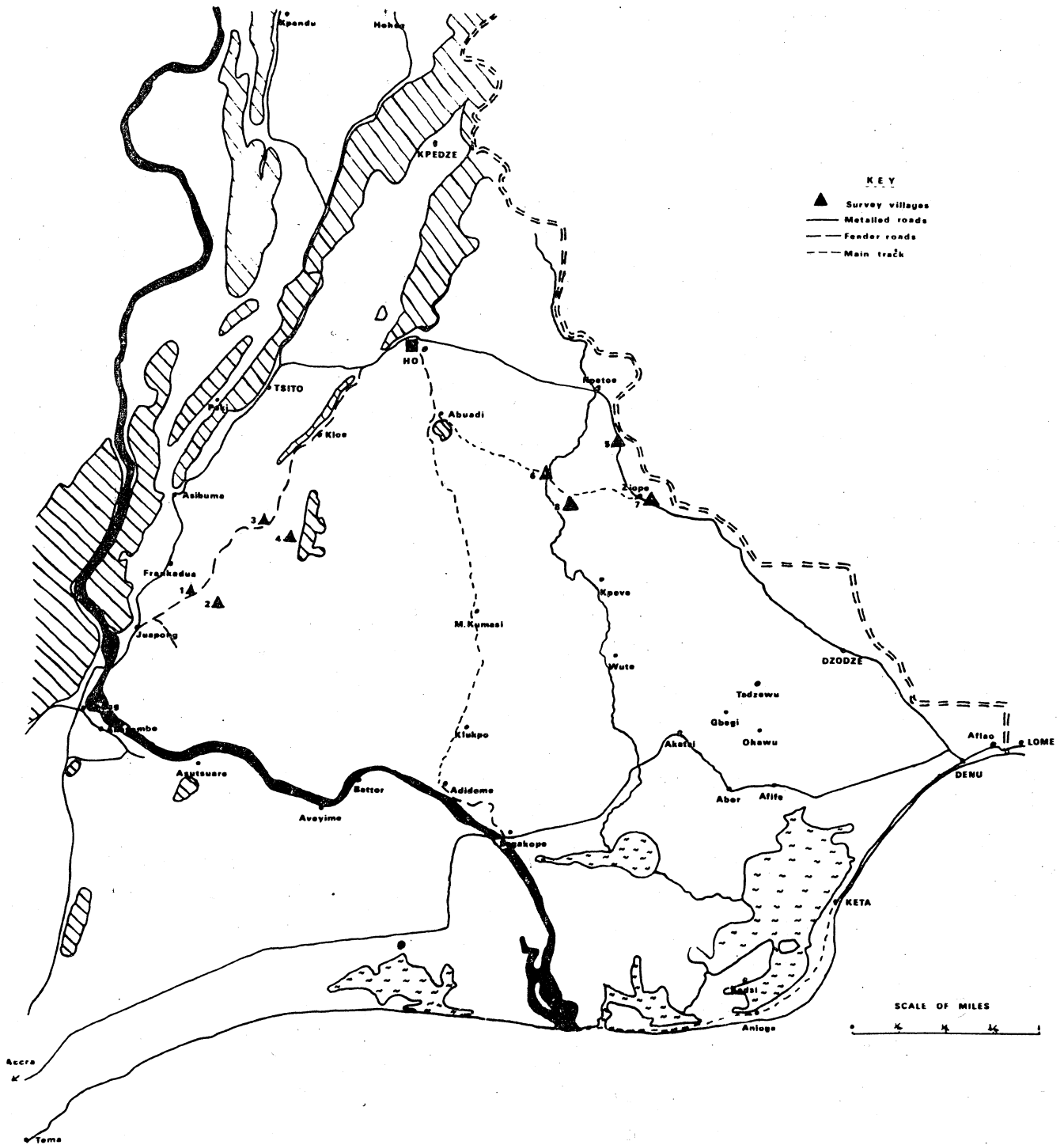
The effect of this income instability on the balance of payments was discussed in the previous section. A further problem is created by the fact that the Government is so heavily dependent on cocoa for its own revenue. In 1956 the proportion of Central Government revenues accruing from cocoa, including Cocoa Marketing Board grants, was as high as 66%. Because of the progressive nature of the export duty on cocoa, Government revenue from this source tends to fluctuate more widely than receipts from exports. Thus in 1965 the export duty on cocoa accounted for 7% of Central Government revenue (N¢ 19.7m.) whereas in 1968 it had increased to 23% (N¢ 69.7m.)

In themselves the fluctuations either in foreign exchange earnings or in Government revenue are not, of course, an adequate reason for seeking to diversify production. Both involve a cost - in terms of economic growth, ultimately - which might well be more than offset by Ghana's advantages as a cocoa grower. In the short-run it could be in Ghana's interest to keep cocoa off the world market. A price-elasticity of demand on average of 0.3 seems not unreasonable.² If this were an unvarying figure and if all producers sold simultaneously, then it would never be in Ghana's interest to put onto the market more than 30% of world supply. However, the way that prices fluctuate and the time-lags which occur suggest that Ghana could maximise cocoa revenue more effectively by shrewd choice of the times at which to sell. In the long

1. See for instance, The Two Year Development Plan From Stabilisation to Development. A plan for the period mid-1968 to mid-1970, Accra 1968.

2. See Birmingham, Neustadt Omaboe Vol.I p.373.

South East Ghana



run policy depends essentially on Ghana's productive efficiency and expectations of the trend in demand. Even if an increase in production were to cause a drop in the short-run, the loss would be worthwhile if it resulted in some of Ghana's competitors being forced to run down their production.

On the other hand it seems quite likely that the boot will be on the other foot, and Ghana caught in a cost-price squeeze as her competitors¹ expand production and push the price down. The Ghana cocoa industry was established on the basis of freely available land and low-cost labour. In both of these respects other West African cocoa producers now seem to have the edge.

According to David Williams² "The Cocoa Industry, everyone agrees, has deteriorated drastically, presumably because of farmer dissatisfaction with rewards." Government policy recently has been to increase the incentives very considerably. The price for a 60lb head load was raised from N¢4.50 to N¢5 for the 1967 mid-crop and again to N¢6.50 after devaluation in July 1967. On 16th July, 1968 it was further increased to N¢7 and yet again on 13th June, 1969 to N¢8. In addition methods of increasing yields are being pursued, such as control of capsid and of swollen shoot disease, and the provision of higher yielding hybrids.

The conclusion must be that Government policy is probably better directed towards cost-reducing techniques rather than to a rapid expansion in the volume of production. In view of the low yields achieved at the moment it seems reasonable to assume that this can be done at relatively low cost by replanting with higher yielding varieties and by encouraging better husbandry.

TABLE 6.

VALUE, VOLUME AND UNIT VALUE OF EXPORTS OF COCOA BEANS 1962-68

| | <u>1962</u> | <u>1963</u> | <u>1964</u> | <u>1965</u> | <u>1966</u> | <u>1967</u> | <u>1968</u> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Value (N¢m.) | 160.9 | 163.4 | 163.5 | 163.8 | 123.7 | 130.7 | 185.6 |
| Volume (1,000 tons) | 421 | 405 | 382 | 494 | 392 | 330 | 330 |
| Average unit value (N¢ per ton) | 382 | 403 | 428 | 276 | 263 | 396 | 562 |

Note: Exports of cocoa paste (including cake) and cocoa butter are not included. They accounted for some N¢29m. in 1968.

Source: Plantation Crops No.13 Commonwealth Economics Committee, London 1970.

1. Ivory Coast, in particular, is expanding cocoa planting very rapidly in response to the restriction on new coffee required by the International Coffee Agreements.

2. Progress, The Unilever Quarterly, 1970 Number 1.

(3) The Degree of Underutilisation and Redundancy of Some Investments

Although this heading is included in the list of constraints, it can be argued that under-utilised capacity represents an opportunity rather than a constraint. Strictly, premature or redundant investments are only a constraint on future development if they constitute a continuing drain on resources. It is always tempting, of course, when bad investment decisions have been made in the past to attempt to salvage more than is economically justifiable. In this respect the Ghanaian Government has been commendably ruthless and has not been afraid to scrap obviously non-viable projects. This has been particularly noticeable in the handling of public agricultural enterprises - State farms, Workers' Brigade farms, etc.

However, for the future the Government has stated that it will give priority to the utilisation of existing capacity. When the conception of a project was sound in the first place this is, no doubt, a wise policy, but there is still a danger that capital investments will be utilised which would be better written-off completely. Great care will be needed in resuscitating these white elephants¹.

1.2. REVIEW OF PLANNING

Planning in Ghana can only be fully understood in its historical context. This section is concerned with the content of the various Development Plans which have been prepared and, in particular, on the stress they have laid on rural development and the policies proposed for it.

The Guggisberg Plan (1920-30)

During the governorship of Sir John Guggisberg, a Ten Year Development Plan was prepared for the public sector to cover the decade 1920-30. It was concentrated very heavily on physical infrastructure, particularly railways, but also involved investment in hospitals and education. In the seven years to 1927 a sum of £G12.4m. had been spent of which £G5.6m. was for railways, £G2.3m. for Takoradi Harbour, £G1.2m. for roads, and £G0.2m. for water supplies.

After 1927 the steam went out of the programme, but progress during the first seven years was such to cause Mr. E.N. Omaboe to remark:

-
1. There are some notable examples in the Southern Districts of the Volta Region with which this series of studies is particularly concerned - such as the oil mill at Denu and the tannery at Aveyime, both closed for lack of raw materials, and partially completed tobacco barns at Kpetoe and Ohawu and a grain silo at Ho. (The tannery is now to be re-sited at Kpong).

"If the tempo of development achieved in the country during 1920-7 had been maintained, Ghana would now be enjoying a standard of living approaching that of some of the developed nations of the world".¹

The Ten-Year Plan (1950-60)

A "Ten-Year Plan for the Economic and Social Development of the Gold Coast" for the period beginning April 1, 1950 appeared in 1951. However, shortly afterwards a measure of self-Government was achieved, the C.P.P. won the elections, and Kwame Nkrumah was appointed Leader of Government Business. As a result it was decided to implement the plan in five years rather than ten, thus turning it into the First Five Year Development Plan. Considerable changes were made to the Plan, but its basic structure was unaltered.

Although the Plan acknowledged the importance of the agricultural industry, it only allocated to agriculture 5% of total planned capital expenditure. In fact, the Plan concentrated on infrastructure, leaving private enterprise to invest in agriculture and industry. In particular, the communications network - railways, roads, Takoradi harbour and the telecommunications system - was emphasised. About one-third of total investment was planned for education, health and nutrition, and social welfare and community development.

As far as agriculture was concerned: "The Government's long-term policy was to improve farming practice on modern lines. The establishment of agricultural stations for research experimentation and training was to be speeded up, and accordingly £G1 million was allocated. The problem of agricultural credit was to be solved through the formation of an agricultural loans board which would operate on money largely provided by the Cocoa Marketing Board."²

The Second Five-Year Development Plan (1959-64)

Ghana gained independence on 6th March, 1957. By this time the implementation of the previous Plan was virtually complete and the Government began preparing a new one which was published in March 1959, the interim being a period of consolidation.

Total expenditure planned under the Second Plan was £G350m. of which £G100m. was for hydro-electric developemnt under the Volta River project. Of the remaining £G250m. projects to a value of £G132m. were selected for immediate

-
1. Birmingham, Neustadt Omaboe - op cit p.441. The discussion of the first three plans here depends heavily on this source.
 2. Birmingham, Neustadt Omaboe - op cit p.444.

implementation. Hence, within the overall Plan was a more 'realistic' Plan, based on an appraisal of the resources available and the country's capability.

"The second plan, like the first one, recognised the importance of the agricultural industry. With over two-thirds of the working population engaged in rural activities it was planned to develop the industry into a 'highly efficient and productive occupation'. The six 'top priorities' in the field of agriculture during the plan period were stated to be the following:

1. To raise the yields of the cocoa industry.
2. To establish large acreages in rubber and bananas in the wet south-west.
3. To establish the foundations of the cattle industry.
4. To raise the yield of cereals in the Northern region.
5. To bring the Volta flood plain under irrigation.
6. To study and promote the use of fertilizers.

In addition to these priority objectives, the plan contained proposals for research, education and extension programmes in the field of agriculture. It was also proposed to review the functions of the Agricultural Development Corporation to enable it to make a better contribution to the agricultural industry. Among the revised functions of this corporation were the establishment of plantations co-operatively with Ghanaian farmers, experimentation with small mixed enterprises of the type of the Sudan Gezira scheme, and the creation of storage and processing facilities throughout the country. The Corporation was allocated £G3 million to carry out its extensive programme. A sum of £G500,000 also earmarked for agricultural credit.

An ambitious target was set for the establishment of new industrial enterprises and £G10m. allocated to the Industrial Development Corporation to invest directly in industry. Once again improvement of the communications system was stressed, although less so than in the First Plan. Education was allocated 10% and health, sanitation and water supplies another 15% of total investment. Hence the Second Plan devoted a larger proportion of total resources to agriculture and industry than the First Plan had, but none the less a high fraction of the total was allocated to social services and infrastructure.

After less than two years the Government decided to scrap the Second Five-Year Plan and work began on a new Seven-Year Plan. No reason was given, but Omaboe suggests that the C.P.P. wanted a plan which had more of the basic characteristics of socialist development plans.

The Seven-Year Plan (1963-70)

Whereas the aim of the Second Five-Year Plan was to establish a welfare state in Ghana, the Seven-Year Plan had socialist aims. These were seen as involving:-

- (1) A fast rate of economic growth;
- (2) The utilisation of national product for 'socially purposeful ends'; and
- (3) A major role for Government in the economy.

The Seven Year Plan was the first comprehensive plan which Ghana had had and the first to set a target rate of economic growth. The figure chosen was 5½% per annum. This was to be achieved by a much greater concentration on directly productive investment, the view being taken that a relative change in emphasis was justified after the heavy investments in infrastructure in the previous dozen or so years. The shift is shown in the following table:-

TABLE 7

PROPORTIONATE DISTRIBUTION OF GOVERNMENT EXPENDITURE UNDER THE
DEVELOPMENT PLANS

| | Agriculture and industry | Social services and infrastructure |
|-----------------|-----------------------------|---------------------------------------|
| | % | % |
| First Plan | 11.2 | 88.8 |
| Second Plan | 20.3 | 79.7 |
| Seven-Year Plan | 37.3 | 62.7 |

Source: Birmingham, Neustadt, Ombaoe op cit p.455

Total investment of £G1,016m was projected, of which £G476m was planned for the public sector and £G540m projected in the private. The figure for agriculture was £G176.6m, of which planned investment in the state sector was £G65.8m and direct investment projected for the private sector £G110.8m.

In the agricultural sector the new "socialist" policy was already being put into effect when the Plan began. In fact, a major reorientation of agricultural policy had already been effected in 1962. The new policy sought to spearhead a drive to increased production by putting heavy emphasis on direct agricultural production by state employees and the fostering of co-operative enterprise. The State Farms Corporation and the Workers' Brigade were to be the principal organisations for direct production and the Ministry of Agriculture was dismembered, with a number of its limbs disappearing completely. The extension

service (including the large number of staff in the Cocoa Industry Division) was disbanded and direct contact between the farmer and the Ministry ceased. Research was transferred to the Ghana Academy of Sciences and the State Farms Corporation took over the agricultural stations and extension staff. In the new dispensation co-operatives were to be the responsibility of the now defunct United Ghana Farmers' Council which was essentially a political body.

The Seven-Year Plan already showed something of a retreat from this extreme position and in 1964 the Ministry of Agriculture was re-organised once again and took on more or less the form which it has today. The structure was one of a large number of virtually autonomous divisions, including extension, farm supplies, seed multiplication, and mechanisation to work alongside the State Farms Corporation, Workers' Brigade and United Ghana Farmers' Council.

The Two Year Development Plan (1968-70)

The Seven-Year Plan was brought to a sudden end by the coup of February, 1966. The economic state of the country was one of the reasons for the military take-over and the attention of the NLC administration was turned to immediate economic problems, particularly the balance of payments crisis, rather than to longer term plans for development. Policies included holding down the level of domestic employment, physical controls on imports, and the devaluation of the cedi in July, 1967. In view of its transitional nature the new Plan covered only two years; the shortness of the period no doubt being determined also by the desire not to hamstring the future civilian Government promised by National Liberation Council.

Since the document is a transitional one it "...emphasises the improvement of the underlying structure of the economy in preparation for more dynamic growth in the future. In particular, the plan concentrates on removal of bottlenecks in industry, bringing the infrastructure of the country into better working condition, progressive improvement of the unemployment situation, rationalising the state enterprise sector, harnessing the potential of the private sector, consolidation of a healthy fiscal and balance of payments equilibrium and, more generally, the development of policies to stimulate future growth."¹

Allocations of funds were given only for the 1968/69 Budget and then incompletely. The main development programmes listed for agriculture (excluding forestry and fisheries) were:-

1. Two-Year Development Plan p102.

| | N¢ '000 |
|--|---------|
| 1. Cocoa rehabilitation and pest control | 1,208 |
| 2. Completion of rice and palm-oil mills | 406 |
| 3. State Farms | 793 |
| 4. Mechanisation programme: plant rehabilitation and replacement | 1,166 |
| 5. Minor irrigation schemes | 2,556 |
| 6. Distribution of fertilisers, seeds, and planting materials | 879 |
| 7. Livestock development and animal health | 309 |
| 8. Extension programmes | 437 |
| 9. Fish ponds | 37 |
| 10. Training and Manpower schemes | 186 |
| 11. Settlement Schemes (excluding N¢ 2.1m to VRA) | 496 |
| 12. Agricultural Development Bank | 900 |

It was stated that the Ministry of Agriculture had no new major project ready to start, but that N¢2m had been set aside for any new projects which the Ministry could justify.

The main programme for water supplies of the Water and Sewerage Corporation amounted to N¢5.9m of which the overwhelming proportion was for rural areas. In the social services field N¢ 200,000 was allocated for the Government share of two self-help projects and another N¢ 500,000 for labour intensive projects.

In order to further the policy of decentralisation, N¢2m was allocated to the newly established Regional Planning Committees for investment in projects of regional or local significance.

It will be clear, however, from what has been said above that the importance of the Two-Year Development Plan lay not in the allocations made to specific development projects, but in its statement of the Government's strategy for economic development and the policies by which it hoped to implement its strategy. These are discussed in sections 1.3 and 1.4 below.

During 1969/70 and 1970/1 extended budget statements have formed the basis of policy. In addition to a financial statement these have contained a general review of progress, an outline of the main intentions of economic policy and detailed proposals for the major sectors - agriculture, transport, road construction and maintenance, health, water and education. The preparation of a five-year National Development plan is meanwhile underway.¹

1. Budget Statement for 1970/1, by Hon. J.H. Mensah M.P. Min. of Finance and Economic Planning. Aug. 1970 p4.

1.3. POLICY OBJECTIVES

This section considers only the aims of national development policy; their implications for village development are examined in the final chapter.

There have been three important documents published recently which have contained statements of the aims of policy: the Two-Year Development Plan, 1968-70, the 1969 Election Manifesto of the party of the Progress Party (now in office), and the 1970/1 Budget Statement. An election manifesto is, of course, not a planning document, and it would be unrealistic to expect the Government slavishly to follow the policies set out in it. None the less, read in conjunction with the Two-Year Plan, it gives a good guide to the general direction envisaged by the new government. It is important that the Plan be considered as well; no political party can rule on its own, it must govern through the civil service, and civil servants - in Ghana as elsewhere - have minds of their own. It is through the interaction of the ideas of politicians and officials that aims and policies are made concrete. To a large extent the Plan might be said to represent the views on policy of the officials.¹ The Budget Statement 1970/1 represents what both politicians and civil servants expect to be feasible in the short term.

The most important common feature of the P.P. programme and of recent Government policy has been the emphasis on private enterprise. The translation of this emphasis into concrete policies will probably have a much more profound effect in the long-run upon the type of society which develops in Ghana than successful implementation of any of the aims listed below. The Progress Party was quite firm about it:

"The PROGRESS PARTY affirms its support for and confidence in private enterprise. Our Government will constantly search for and devise other schemes to promote, assist, reward and encourage private risk taking".²

The Two-Year Plan saw development objectives as falling into two categories, short and long-term. The need for short-term objectives as a separate category was conditioned by the particular difficulties of the economy at the time that the Plan was prepared.

-
1. This is not to imply that the NLC had no political philosophy. None the less, in the circumstances in which the Plan was written, the views expressed are more likely to be representative of official opinion than is usual in a document of this kind.
 2. Also "THE PROGRESS PARTY welcomes the honest and enterprising foreign investor to Ghana and endorses fully the provisions of the Capital Investment Act". The Progress Party Manifesto, 2nd August 1969 p.9.

Short-run

- (a) to provide the foundations for self-generating growth;
- (b) to achieve growth over the short period with an improved efficiency in the use of imports and investment resources likely to be available;
- (c) to reduce the high level of unemployment and check the rate of migration to the cities;
- (d) to maintain internal financial equilibrium avoiding on the one hand an inflationary rise in prices and on the other the creation of additional idle capacities;
- (e) to maintain external financial equilibrium in such a way that the balance of payments shows no larger deficit after accounting for debt service than can be covered by foreign aid and long-term loans.

Long-run

- (1) an improved rate of growth of national income through a sustained high rate of development well balanced between sectors;
- (2) a more equitable distribution of income between regions and between persons while ensuring that the social changes attendant upon economic development do not rob the Ghanaian society of some of its highly valued traditions;
- (3) the development of the rural areas;
- (4) diversification of the export base of the economy;
- (5) the reduction of dependence on foreign aid.

The Progress Party explicitly or implicitly endorsed all the short-run objectives. The Manifesto made no mention of checking migration to the cities, but one would not expect this sort of commitment in a political statement. Its counterpart - increasing the living standards of the rural community to comparability with those of city dwellers - was included.

There was a broad consensus of opinion about the nature of the problems facing the Ghanaian economy in the short-run, hence the short-run objectives more or less chose themselves. In the longer term there is more scope for choice of aim and more likelihood of a divergence in view between the politicians and the civil servants.

Of the Plan's long-run objectives number (1) was repeated in the Manifesto almost word for word. Number (2) was twofold - reducing income inequalities between persons and also between regions. On personal inequalities the P.P. merely promised to provide equal access to economic opportunities to all Ghanaians. Its policy on regional disparities was very firm:

"Particular attention will be paid to those regions of Ghana especially, the Northern, Upper and Volta Regions and those parts of the other regions which have been neglected by previous governments. Every effort will be made to correct the wide and unjust gap which exists between the development of some parts of the country and others. The Northern and Upper Regions can and will be turned into the great granaries and ranches of Ghana. The Volta Region will be raised from its present state of neglect into a vigorous producer of food for the people of Ghana."

Number (3) was complementary to this. The development of rural areas is a central concern of the new Government. Bridging the gap between the urban and rural communities by paying special attention to the needs of the badly neglected rural communities was an important plank in the Party's platform at the election. The need to increase rural prosperity is one of the reasons for giving agriculture top priority. It is not the only reason, though, and a further aim of the Party - to bring down the cost of living - is in direct conflict with it, insofar as it involves trying to keep down prices of locally produced food.

Diversification was common to both Plan and Manifesto. The fifth and final long-term objective set out in the Two-Year Plan was the reduction of dependence on foreign aid. This must be seen as a political objective, rather than an economic one. It is served by other aims of policy such as building a strong and viable economy, and is unlikely to exert an independent influence on the direction of Government policy, particularly in view of what has been said above about the balance of payments problem.

A crucial question in framing a strategy for development is the extent to which a society is prepared to give up present satisfactions in order to achieve a higher rate of economic growth. A related and even thornier question is concerned with changes in the quality of life which development brings about. The emphasis in the Plan was on rapid economic growth, although it did recognise that this may threaten some of Ghana's traditions. The Manifesto tends to put a greater stress on the way in which increments to income are to be spent; it sees health and education as ends rather than means.

In fact, the objectives of development policy have been little altered by the recent change in government as shown by both the Manifesto and the 1970/1 Budget Statement. The Government aims to achieve steady growth whilst at the same time providing jobs for the unemployed, operating industry at full capacity, increasing food production, bringing down the cost of living, revolutionising agriculture, raising rural incomes, improving health and education, and improving the balance of payments.

1.4. DEVELOPMENT STRATEGY

The strategy by which these objectives will be served is now becoming clear.

- (1) Private enterprise will be 'liberated' from administrative controls¹ - such as pervasive import-licensing - as quickly as the health of the balance of payments and other dimensions of the economy will allow. All possible ways will be found of stimulating saving and assisting with credit.
- (2) The objectives of increasing food production and improving the balance of payments are to be achieved primarily by a vigorous agricultural policy, so mounted as to achieve other rural development objectives at the same time - better interregional balance as well as higher standards of material living in health, housing, roads, electricity, education etc. A substantial increase in public funds deployed in these directions was announced in the 1970/1 Budget Statement, varying in emphasis between regions; in addition, specific encouragements to private enterprise in agriculture are provided. It is intended that rural opportunities should develop sufficiently to reduce the pressure of migration to the major towns.
- (3) Diversification of agricultural production is much in the minds of the policy makers but they also recognise the long as well as short-term importance of cocoa. A large part of Government revenue comes from the export duty on cocoa. The export duty has the advantage of being easy to collect. Provided that total export revenue could be increased by increased cocoa production, the Government might feel that it was worthwhile, even if the opportunity cost were high in terms of resources supplied by the rest of the economy.
- (4) Although agriculture is given priority the approach is by no means fundamentalist. The principal agent for industrial development is private enterprise and maximum encouragement will be given to Ghanaian businessmen of all classes. Certain types of business are reserved for Ghanaians, and the Capital Investment Board ensures that all new enterprises, except the very largest, have substantial, although not necessarily controlling, Ghanaian financial participation. The P.P. proposes to give tax concessions to expatriate firms which promote Ghanaians to managerial posts. The policy with regard to state enterprises is one of consolidation and further rationalisation.

An important aspect of industrial policy is the dispersion of industry away from the Accra-Tema complex. NLC policy was to stimulate small - and medium - scale industries for this purpose, and the Progress Party has promised material support and fiscal concessions for firms and companies which locate in rural and

designated depressed regions.' Small industries are stimulated by the provision of credit (through the National Investment Bank) and training facilities, and the development of industrial estates. Further aims of Progress Party industrial policy are the encouragement of foreign investors, protection for domestic industry, the attainment of full employment in the manufacturing sector, maximum utilisation and development of domestic raw materials, efficiency and high quality in production, and stable industrial relations. The principal means for achieving these ends will be through tax concessions.

A particular problem for industry in recent years has been that of obtaining spare parts and raw materials. Physical controls have been an essential part of Ghana's strategy for dealing with the foreign exchange problem, but the import licensing system has been cumbersome in operation and firms have found difficulty in maintaining efficient production. A removal of controls linked with incentives to export, particularly to other countries in West Africa, is a dominant theme of the 1970/1 Budget Statement.

(5) "The present state of the roads of Ghana and the transportation system generally," says the P.P. Manifesto, "is a reproach to the people of Ghana." The 1968/70 Plan stressed the rehabilitation of the existing road system rather than the construction of new roads. The new Government is continuing this; feeder roads are stressed. In addition effort will be made to improve road maintenance and encouragement is being given to the private sector to increase and improve the transport available.

Electric power generated by the Volta River Authority's hydro-electric station at Akosombo has now largely replaced that from traditional sources. The policy is that hydro-electric power should continue to expand and replace existing diesel units, and to provide both an exportable product (to Togo) and power for increased industry (especially bauxite processing).

(6) As an attempt to improve employment prospects one of the more interesting proposals of the Progress Party was a Special Employment Rebate of part of their tax to firms absorbing more labour, as an incentive to labour-intensive methods. Labour intensive developments in rural areas were also intended. In addition, the "Worker's Brigade will be re-organised into a self-supporting and job training institution for the improvement of agriculture and the development of the rural areas." The 1970/1 Budget Statement¹ somewhat optimistically sees the solution to the employment of rural youth in the stimulation of the growth of

1. 1970/1 Budget Statement p.12.

modern farmers who will be "able to pay reasonable wages out of the high productivity of labour that results from modern methods of farming."

(7) Education in Ghana is going through a process of re-organisation. Pupils formerly spent 10 years in primary and middle school. What was taught in these 10 years will now be taught in 8. Those not going on to secondary school will take continuation classes which are vocationally orientated, in particular, towards agriculture. Official documents emphasise the need to improve the quality of education in Ghana particularly by improving the quality of teachers, and make it more relevant to economic growth.

(8) The highest priority at present is being given to preventative health services and improving services in neglected areas. The principle is to employ resources to provide health services to the greatest number rather than sophisticated services for a few; hence the emphasis is on provision of health centres and posts rather than new hospitals.

1.5. ISSUES IN AGRICULTURAL POLICY

General Policy

According to Professor La-Anyane, the Ministry of Agriculture has had no written statement of its policy since that put out by its colonial predecessor in 1950/51. Since the War, he says, the Ministry has groped in the dark in muddled confusion without any prolonged leadership of a Minister or Commissioner and under the inevitable misguided control of administrators with no professional knowledge.¹ This may be rather an extreme view, particularly if it implied that technically qualified staff are necessarily the persons best equipped to run a complex administrative machine. Nonetheless the Ministry does seem to have been particularly buffeted by changes in the wind of ideological fashion over the past decade or so. Also, the policy documents give the impression of a lack of attention to, and understanding of, the problems of agricultural development. For instance, the Two-Year Development Plan - which maintained that agriculture in Ghana has in general been stagnant for many years - devoted only five pages (out of 104) to agricultural policy (excluding cocoa).

(1) The central issue in Ghanaian agricultural policy is the organisation of production, and this, of course, is a very highly political question as well as being a technical one. It is always tempting to believe that production can be dramatically increased by a radical change in the farming structure; monuments to this belief can be found in many parts of the world.

1. S. La-Anyane - op cit. Professor La-Anyane points out that there have been no fewer than ten Ministers or Commissioners for Agriculture in the decade from 1959. There have been five since the coup in 1966.

The new policy in 1962 was to establish 'production fronts' to bring about revolutionary changes in agriculture. The main function of trained agriculturalists was no longer to be to service farmers, but to engage directly in production, and the Ministry of Agriculture was virtually dismantled. The emphasis was to be on 'modern', mechanised farming, making a clean break with the shifting (or rotating) cultivation of the past. The failure of the majority of the units of these production fronts is discussed in chapter 2.

There can be no doubt that a lesson has been learned from the failure of this approach, but I am not certain that in all quarters it is the right lesson. It is true that public large-scale enterprise is no longer seen as a panacea - the National Liberation Council even went so far as to find private (overseas) buyers for some public enterprises. Nonetheless the chimera of a dramatic transformation still exists. Shortly before its retirement the NLC Government announced a policy to encourage trained agriculturalists to go 'back' to the land. "Government has decided that the time has come when more of those Ghanaians who have professional training in agriculture should be encouraged to establish themselves directly on the land as against doing government jobs which are connected with agriculture... It has been decided that Public Officers who wish to leave government service, even temporarily, to engage in farming will be encouraged to do so on very generous terms... Provision has also been made in the budget to supply loan funds to a total of N£0.6m for the use of these farmers who, we hope, will be able to bring modern methods of farming more rapidly to our countryside."¹ In addition new agricultural enterprises have been completely exempted from tax in their first five years of operation.

In spite of the opposing attitudes to the private and public sectors in these two (pre- and post-coup) approaches, there is a similarity in their view of the role of the trained agriculturalist and in their implication that 'modern' agriculture is a totally different occupation from peasant agriculture. There is, however, a very important difference which is that the second policy can only be implemented to the extent that Government is successful in encouraging its staff to throw up their jobs and take up farming.

On the other hand, another NLC policy which is possibly even more in the vein of the 'production front' approach does seem likely to be continued by the Progress Party Government. This is the encouragement of overseas private investment in large-scale agricultural enterprises. Some of the proposals put forward have been for investment on a really grand scale. To quote Professor

1. Budget Statement for 1969-70 by Mr. J.H. Mensah, Ministry of Finance, Accra, 15th July 1969.

La-Anyane once again: 'They too will inevitably fail. There should be a policy for enlarging existing peasant holdings through improvement of the land tenure systems. The surest way to increase production and productivity is by building upon the farming structure already in existence.'¹ Or James Gordon: 'But as long as we look for solutions outside peasant agriculture, and apply funds and man-power to 'long-shot' schemes based on mythical 'modern farmers' we shall not be able to afford the necessary massive investment in peasant agriculture for increased food crop and fibre crop production.'² Two large-scale private maize growing enterprises in the centre of the country are currently attracting much interest - and, predictably, running into technical problems.

The views just quoted, although not unique, are far from being universal amongst the agricultural establishment in Ghana. They would find some supporters in the ministries, the universities and the research institutes; but there are many who are contemptuous of the peasant, and believe that a significant increase in production can only be brought about by somehow inducing a new breed of modern, educated farmers to turn to the land, and eventually replace the existing class of illiterate peasants.³

Over the past five years there has been a considerable rationalisation of the state farms sector by getting rid of uneconomic farms, returning, to organisations such as the Ministry's Cocoa Division, stations whose primary function was not a directly productive one, and by reducing the labour force to more manageable levels. Present policy is now one of stabilisation with a view to increasing efficiency. Each farm is to be a viable unit. Efforts to be used more efficiently throughout the year. Arable cropping will, in general, be confined to those crops which particularly lend themselves to large-scale methods of production; viz. rice, maize and cotton.

The Settlement Division of the Ministry has taken over Young Farmers' League farms and is attempting to put them to good use by training young farmers who will eventually be settled on a small plot of land, or for the exceptional few, a plot of about 50 acres. The Mechanisation and Transport Division which provides a hire service to farmers is rationalising its tractor fleet and attempting to rehabilitate the large number of tractors which are unserviceable.

-
1. La-Anyane - p.10.
 2. James Gordon - "Problems of 'Settled Farming' in the Humid Tropics" in Background to Agricultural Policy - Ghana p.99.
 3. It is interesting that at the time of writing, projects which concentrate on the promotion of particular commodities in a few selected areas, based on forms of organisation which encourage relatively large scale producers (from among the more educated and better connected local people), are currently being planned, with a view to World Bank support.

The Government has now announced its intention to sell off, after thorough overhaul, many of its old tractors, to the private sector. (Unfortunately the speed of execution of this move has been such as to frustrate would-be purchasers, at the same time as denying services to farmers who had become accustomed to employing them.)

(2) Land Tenure is a topic on which the Development Plan, and indeed the Government, is entirely silent. It is one which in the opinion of some is of crucial importance to the development of Ghanaian agriculture, and has been neglected far too long. However it is an issue complicated by regional variation and by political questions.

(3) The Ministry of Agriculture has no research programme of its own; it has to rely on the universities and the various research stations of the Council for Scientific and Industrial Research. In order to co-ordinate agricultural research in Ghana there is a co-ordinating committee on which the Ministry is represented. The 1968/70 Development Plan proposed a 'stepped up' programme of adaptive research in crop production', but it is not clear what the mechanism is for ensuring that the CSIR actually undertakes the research which the Ministry of Agriculture's experience suggests is necessary.

The 1968/70 Plan also states that the "Government will ensure that there is a strong link between the Extension Division and the Institutes responsible for Agricultural research." There is no evidence yet of such a link being forged. The Government shows itself sensitive to the problems of the extension service in proposing to improve the conditions of service of staff and to provide better transport. Once again, little appears to have been done so far. The lowest level of extension staff is thinly spread on the ground without adequate transport and support. They appear to be undervalued and ineffectively used.

(4) The policy on agricultural credit seems to be to hasten slowly. Experience in the past has been somewhat chastening and it is not surprising that the Government should wish to establish the present arrangements on a firmer footing before instituting a rapid expansion of credit. It is keen to interest the commercial banks in agricultural credit, but where it is successful in this the schemes undertaken are inevitably large-scale. The Agricultural Development Bank has resources with which to concentrate on a limited range of activities, including fisheries, tree crop production for export, and food crops. It is perhaps the Maize loan scheme (with minimum loans of N\$90) which is likely to reach the small farmer. But the Bank does not find it easy to lend to small-scale farmers not to recover its money, and has not yet found the co-operative

structure very satisfactory for channelling funds to them. One of the most positive (and new) statements on agricultural policy which the Progress Party made in its Manifesto was that it would revive the Co-operative Bank and provide ample funds to allow it to give more agricultural credit through the co-operatives in rural areas to the small farmer, who cannot be accommodated by the Agricultural Development Bank. It will first be necessary, however, to strengthen the co-operatives.

(5) The availability of inputs is one of the most vexed questions of agricultural policy from the point of view of the individual farmer in Ghana. The normal channel for the provision of improved seeds, fertiliser, and agricultural chemicals - and in many cases the only one - is the Ministry of Agriculture. In order to encourage their use some of these are subsidised by the Government. The subsidy would be more to the point, however, if the goods could be reliably provided where and when they are required. In the recent past the import licensing procedures have made for difficulties and the easing of these restrictions should help to improve the situation. Also the Government has shown in its planning that it is aware of the problem, but it will take a really determined effort to put things right. Possibly the stimulation of private enterprise might in the end prove the most satisfactory solution. The Government has proposed establishing jointly with the banks a company to supply commercially seeds, seedlings, fertilizer and other agricultural requisites. Some of the existing seed multiplication stations plus equipment are to be transferred to the company and experienced management sought.¹

(6) Virtually all commentators on the Ghanaian economic scene stress the need for improvements in the transportation system, particularly for the rehabilitation of the existing main roads and the construction of further feeder roads. Some attention, belatedly, is being given to storage. As already observed, processing presents a challenge, not so much because of the inadequacy of processing facilities, but because there is a considerable under-utilisation of capacity in certain processing industries.

(7) The main issue in marketing policy is what the role of the state should be. For cocoa and some other export crops such as coffee, bananas, copra, etc., the State Cocoa Marketing Board has provided a fairly satisfactory solution. For other industrial crops special arrangements have been made. The Ghana Tobacco Company is a mixed state-private company which is responsible for promoting the tobacco industry and marketing the product. Special State Development Boards have been set up for kenaf and cotton to perform a similar function for these

1. Budget Statement for 1969-70 p.8.

crops. On the other hand the Government seems satisfied to leave the trade in perishables in the hands of the market mammals. The principal question mark lies over the Food Marketing Corporation. Is it to be purely a marketing organisation or is it to have developmental functions as well? At the moment it concentrates its attention on maize and rice for which crops it is also responsible for administering the minimum price guarantee. For maize - with the help of food aid - it is attempting to work out a price stabilisation scheme.

Pricing and marketing policies are, of course, closely related. For the export and industrial crops mentioned above, which are the responsibility of a statutory board or corporation, prices are fixed at the beginning of the season. Guaranteed minimum prices are now set for maize and rice, and the intention announced of extending them to other crops such as guinea-corn and groundnuts. There appears to have been no statement of the aims to which pricing policy is to be directed.

Production Priorities

There appear to be a wide range of opportunities open to Ghana for increasing agricultural production. The 1968/70 Plan concentrated on a more limited range of crops which "include oil palm, sugar-cane, tobacco, fibre, cotton, maize, rice and other grain crops." It adds significantly that in "the production of these crops, the Government will encourage large-scale production methods, with private farmers and co-operatives playing an important part".

(i) Cocoa

Cocoa is not mentioned in the above list but was dealt with separately. A vigorous policy for cocoa was proposed. "This will entail a comprehensive programme of research, replanting, extension, the control of capsid and swollen shoot disease, marketing, and producer pricing." The objective is to maximise the foreign exchange earnings from cocoa, and to achieve this, emphasis is to be given to maintaining the industry's competitiveness on world markets.

(ii) Oil Palm

The 1968/70 Plan emphasises the importance of vegetable oils in world trade and particularly in the Ghanaian economy. However, policy appears to be directed only to production for the processing mills by State Farms, co-operatives and limited liability companies. Attention is currently being given to the possibility of production by outgrowers. There is no statement of any policy to help the small scale farmer who will be growing mainly for the market in fruit and unrefined oil.

(iii) Sugar-cane

The two sugar factories at Komenda and Asustuare have a minimum economic throughput of 36,000 tons; they have not yet produced much more than 4,000 tons in a year due to difficulty in getting the cane in and a poor extraction rate. The principal concern of policy is to get the factories operating efficiently as soon as possible. It is proposed to induce more outgrowers to take up sugar-farming, though this has not been spelt out in detail.

(iv) Tobacco

Responsibility for the development of the tobacco industry rests with the Ghana Tobacco Company, a limited liability company established by the Government and the Pioneer Tobacco Company who also manage the company. The principal aim at the moment is the production of high grade tobacco for import-substitution, but in the long-run the objective is to establish an export trade. The company has its own field staff and the main push is in areas suitable for flue-cured tobacco, where farmers are being assisted in the acquisition of their own barns.

(v) Fibre

Export of Ghana's cocoa crop requires a large number of bags each year; these are being manufactured locally but the raw material (jute) has to be imported. It is hoped to develop a new industry growing fibres, mainly kenaf, to replace these imports. For this purpose a Kenaf Development Board has been set up with sole responsibility for the production, processing and marketing of kenaf and allied fibres. The Board has power to control both the price to the producer and also imports of unprocessed fibre.

(vi) Cotton

At present only a minute quantity of cotton is grown in Ghana. There is to be a vigorous programme to promote it, particularly in the north where it is seen as providing a much needed cash crop. A Cotton Development Board has been established which, it is intended, should provide a complete service to farmers from the provision of seed to the ginning and marketing of the product.

(vii) Grains

The extension service is putting a lot of its effort into increasing maize production, mainly through the distribution of small demonstration packages of improved seed, fertiliser, and pesticide, assisted by A.D.B. credit. This as yet has had little impact. Minimum prices for both maize and rice were recently increased.

(viii) Rubber

The Government estimates that there are 6,000 acres of rubber which were established when rubber was subsidised, but which have been neglected since the subsidy was withdrawn. It is proposed to provide loans through the A.D.B. to help farmers in the rehabilitation of their farms.

(ix) Livestock

Recently attention has been concentrated on poultry and pigs. The development of a modern poultry industry has been particularly rapid in the last few years; although feed prices are very high, so are the prices obtained for eggs and poultry-meat. The emphasis of policy is now to be on reducing the cost of production. The Animal Husbandry Division would like now to concentrate more on ruminants. The Government's immediate policy is to reduce stock mortality through the provision of veterinary services and better water supplies.

1.6. PLANNING MACHINERY

As a result of a policy to decentralise, the machinery of planning is in a state of flux. It is by no means clear yet how the new arrangements will work out in practice. There are at least four types of organisation involved in public sector planning - Central Government, the Rural Planning Department, the Ministries or State Corporations, and the Regions and Districts.

The Central Government organ responsible for planning is the Ministry of Finance and Economic Planning. Thus both budgeting and longer term planning are now the responsibility of a single organisation. It is this Ministry which has the responsibility for welding the regional and sectoral plans and budgets into a coherent whole.

(a) Planning agricultural development

If there is to be effective decentralisation of planning, there must be decentralisation within each sector in addition to the establishment of regional planning bodies. In the agricultural sector, committees have been set up at national, regional and district level. The National Agricultural Council, with the Minister as its chairman, was set up in May 1967, but does not appear to be very active. It is, however, charged with responsibility for Regional and District Agricultural Councils which are formed by "representatives of the groups which buy and sell and transport farm produce, as well as those in administration generally concerned with farm produce".¹ The Chairman of the Regional House of

1. Agricultural Newsletter May 1967

Chiefs is chairman of the Regional Agricultural Council and the Regional Crop Production Officer is his deputy. These councils were "charged with the responsibility of drawing up programmes that would ensure the achievement of targets, supervise their implementation and report regularly on progress made".¹

District Agricultural programmes for 1969 and 1970 for Ho, Denu and Sogakope Districts were prepared by the District Crop Production Officers (i.e. extension officers) on the advice of their respective District Agricultural Councils. They are, in effect, plans of work for the District extension staff for the year. It will also be seen, though, that the Council has the benefit of an Advisory Committee which consists not only of the officers-in-charge of the various divisions of the Ministry of Agriculture in the District but also representatives of Ministries such as Health and Education. The Regional Agricultural Council meets in theory once a quarter to discuss problems of agricultural development and to suggest solutions; like the District Councils it is an advisory body.

The Agricultural Councils are at the fringe then, rather than the centre of agricultural planning. There is, however, one very valuable function which they can serve: that is, to provide a channel of communication between farmers (although possibly not a very representative selection) and the higher echelons of the Ministry. One of the obstacles to greater efficiency in the Ministry is a lack of communication between the top officials and those in the field. A structure, such as that of the Agricultural Councils, which allows a certain amount of leap-frogging in the chain of command, should serve to make it easier for farmers to put their problems more directly to those in positions of responsibility.

The structure of the Ministry of Agriculture is not one that is conducive to efficient planning, due to its fragmentation. In addition to the bodies concerned with agricultural development, there are a large number of Divisions of the Ministry which are virtually autonomous. In order to mitigate some of the disadvantages of this situation an Agricultural Development Co-ordination Unit has been set up "to prepare agricultural development plans and to co-ordinate the technical activities of the several executive organs operating under the Ministry of Agriculture as well as other Ministries and Organisations whose activities are directly or indirectly related to agricultural development." The Co-ordinator in charge of the Unit is of suitably high status, but he is primus inter pares, rather than ranking above the other divisional chiefs.

1. Agriculture Newsletter May 1967

In the Two Year Plan the Government announced its intention that the preparation of sectoral plans be progressively taken over by planning units in the various ministries, the role of the Ministry of Finance and Economic Planning being "to co-ordinate the sector programmes and regional plans, interpret them and analyse them for consistency." In the agricultural sector, however, budgeting - and this at the moment is the effective part of planning, since there is no master-plan for expenditure to which budgets must conform - is still closely controlled by the Ministry of Finance and Economic Planning. Each Divisional chief presents his budget to MF and EP separately although he may be accompanied by the Co-ordinator at the budgetary hearing. Instead of being allowed to be a team-leader, the Co-ordinator has to be satisfied with being referee in the preliminary bout, and then second to each of his team as they fight their independent battles in the main contest. This is bound to weaken the bargaining position of agriculture compared with Departments with a more unified structure.

At a regional level the difficulties of fragmentation within Agriculture are compounded. The Regional Agricultural Officer is senior to the Divisional heads in the Region, but the real control of their activities lies with the Divisional chiefs in Accra. If once again we look at budgeting, we see that Estimates for most of the Divisions are printed separately for each Region thus giving the impression that expenditure is controlled in the Region. This is erroneous. The Regional Agricultural Officer has as yet little power to transfer funds or staff between one Division and another within the Region, although Divisional Chiefs can make transfers between Regions. It has been suggested that attempts to decentralise budget preparation have so far been a failure because of the lack of staff in the Regions with experience in this type of operation. It will, however, require more than a growth in experience to make decentralisation work in the Ministry of Agriculture, but a real devolution of power to the Regional capitals.

(b) Planning for overall development

Regional plans are the responsibility of Regional Planning Committees. These were initially set up by the Ministry of Economic Affairs, but under the new Constitution they are to be sub-committees of the Regional Councils for which the Prime Minister's Office is responsible.

Regional Councils were created on the recommendation of the Mills-Odoi Commission on the Structure and Remuneration of the Public Services in Ghana on whose advice the decentralisation policy was initiated. The Regional Authority

was seen by the Commission as being primarily a planning and co-ordinating body. "It would be professionally staffed (including a development economist and a physical planner as well as engineers, accountants, etc.) and would be responsible for assessing the development possibilities of the Region in relation to each governmental activity and would integrate these activities into co-ordinated programmes within the National Development Plan. The Regional Authority would be required to produce an annual integrated budget to give effect on capital and current account to the Regional Plan."

The Mills-Odoi Commission was followed shortly afterwards by the Commission of Enquiry into Electoral and Local Government Reform (the Siriboe Commission) which reported in February, 1968. Its recommendations were accepted by the Government subject to the deliberations of the Constituent Assembly and thus the functions of the Regional Councils as set out in the Constitution include:

- "(a) the co-ordination and supervision of the development plans, programmes or other functions of the District Councils in the Region;
- (b) planning at the regional level, and the integration of departmental programmes in the Region; and
- (c) such functions of the Government as are performable at the regional level."¹

The Regional Planning Committees are charged with ensuring the accelerated, comprehensive and integrated development of their Region.

The Regional Chief Executive and the Regional officers of the decentralised Ministries are all ex-officio members of the R.P.C. The Chief Regional Planning Officer of the Region (of the Rural Planning Department, Ministry of Social and Rural Development) acts as its secretary. It is the aim of the Rural Planning Department to provide each R.P.C. with a secretariat of trained staff, possibly five in number. There is at least one in each of the nine Regions at the moment.

The Rural Planning Department was once the Regional Planning Division of the Physical Planning Department of the Ministry of Economic Affairs. In the recent re-organisation it was upgraded to Departmental status and transferred to the Ministry of Social and Rural Development in accordance with the Government's increased emphasis on rural development.

Because of its genesis in a physical planning department, it remains to be seen how the Rural Planning Department will cope with its new responsibilities, and whether the type of training which its officers receive is appropriate to the wider responsibilities which they will have to bear. A peculiarity of the present

1. Constitution of the Republic of Ghana. Article 159.

situation which needs to be emphasised is that, although the Department is responsible for regional planners, it does not have responsibility for regional planning, which lies with the Regional Councils.

The greatest problem for the Rural Planning Department will be co-ordinating the activities of the various Ministries and State Corporations operating in each Region. The first step is the provision of a regional plan framework, indicating projected population changes, production targets and priority areas, and recommending the types of measures required to achieve the targets, based on the guidelines set by the Ministry of Finance and Economic Planning. Already statistical monographs setting-out the existing socio-economic situation have been prepared. Based on this framework proposals will then be made by the various Ministries and State Corporations, as well as the local authorities and self-help villages in the area. The regional planning staff will evaluate and co-ordinate these into a plan to be approved by the Regional Planning Committee. The regional plans will then be incorporated in the sectoral plans prepared by the Ministries or Corporations at national level, and into a national Rural Development Plan.

An interesting aspect of the decentralisation of planning is the way that regional planning is related to development at a local and village level. The lack of adequate funds and staff is likely to be a serious constraint on vigorous action at this level.

In the villages there have been Village Development Committees for many years. They have been fostered by Community Development, now known as the Rural Development Department, and are largely based on self-help. An important function of the Department is to assist those villages which are self-help orientated to prepare village development plans, and gives them material assistance to put them into practice.

To sum up; it is too early to say how decentralisation of planning will turn out. The original enthusiasm is now being tested by hard experience within the new structure and by debate in Parliament. Whatever the final structure it is to be hoped that, together with other administrative structures, a *modus vivendi* is soon established and a measure of stability is achieved. Instability in itself is undesirable if, as a result, inefficiencies increase and respect for the processes of government declines.

CHAPTER 2

THE INSTITUTIONAL FRAMEWORK

2.1. DECENTRALISATION

The decision to introduce a radical decentralisation of the functions of government was referred to, in relation to plan preparation, in Chapter 1. Its likely effects on plan implementation will be referred to here.

The Mills-Odoi Commission drew attention to the following weaknesses in the old pattern of administration:

- a) Excessive centralisation leading to attenuation of the line of management control, with even minor decisions being made at the centre;
- b) Neglect at the centre of other functions - determining overall strategies, assessing, marshalling and allocating resources;
- c) Neglect of rural areas, with concentration of development particularly in Accra;
- d) Fragmentation of ministries with new divisions covering ever smaller functional ranges.

In addition the Commission drew attention to the virtual collapse of local government and to the need for radical changes in the constitution, areas, functions, staffing and finances of local bodies.

The creation of District and Regional authorities was the outcome of this line of thought. It was recommended that the District Authorities would be responsible for all the functions hitherto carried out by Local and City Councils together with others hitherto the province of Central Government (including road building, health other than large hospitals, Social Services and Community Development, Parks and Gardens, Agricultural Extension Services, Primary and Middle School education, fire fighting); that the District Authorities would be the executive agencies while the Regional Authorities would be primarily planning and co-ordinating bodies.

The principal recommendations of the Mills-Odoi Commission were accepted by the NLC and the appropriate provisions have been made in the Constitution. The new civilian Government has also committed itself to ensuring that decentralisation works.

If decentralisation is to be a success there will need to be a completely

new relationship between the central ministries and the regions. It has been suggested that the former will essentially provide:-

- "(a) technical guidance, clear policy and sound up-to-date appraisal of results;
- (b) maintenance of national standards and goals within which the Regional, District and Functional Agencies would plan and programme their own responsibilities;
- (c) responsibility for formulating the national plan, i.e. policy for the allocation of resources in capital, funds, skilled manpower; and
- (d) general control, especially in terms of being kept informed, carrying out inspections through visits and undertaking performance audits to encourage efficiency and to ensure that standards are at reasonable levels throughout the country."¹

The Siriboe Commission on local government which reported shortly after Mills-Odoi discussed the functions of the decentralised authorities in greater detail than did the Mills-Odoi Commission. With regard to agriculture, its recommendation was that, in view of the importance of agriculture in the national economy and of the need for a close relationship between research and extension, the central government, regional and district councils should work in close co-operation in the provision of agricultural extension services with the ultimate administrative control resting with the central government. It was felt that this arrangement would ensure that research reflects the needs of the farmer, that the results of research get passed on to the farmer and that extension services are properly co-ordinated and supervised. The Government made no specific comment on this and has left the actual details of decentralisation to the Office of Government Machinery. Budgeting, at least as far as the Ministry of Agriculture is concerned, is still controlled from Accra; most officers in the regions do not have the experience to do it. It is only when financial control passes to the regions that we can say decentralisation is working.

2.2. LOCAL GOVERNMENT

The arrangements for local government are, of course, an important part of the decentralisation programme. They also have recently been the subject of a Commission of Enquiry whose recommendations have had a profound effect on government policy.

1. A.L. Adu - "Administrative Reforms in Ghana", Paper presented to the Ghana Development Association Conference, Cambridge, April 1970

The picture presented by the Commission of local government in Ghana was of too many authorities disposing of too little in the way of resources. Problems faced by councils in discharging some of their functions were diagnosed as follows:-

- "(1) The absence of a clear definition of the respective roles of Local Authorities and central government agencies in the performance of certain functions.
- (2) Lack of proper guidance of local authorities by the ministries which have overall responsibility for the functions which the former perform.
- (3) Scarcity of staff with requisite specialised skills to manage technical services.
- (4) Inadequate financial resources."¹

The Commission's principle proposal was that there should be a three-tier system of local government consisting of:-

Regional Councils
District Councils
Town, Local and Area Councils

The Government, in the White Paper which it published on the Commission's proposals, questioned the advisability of setting up the third tier, preferring instead a framework of District Authorities and local or village committees which it had already accepted following the recommendations of the Mills-Odoi Commission. There is, however, in the Constitution provision made for Local Councils.

Needless to say the greatest problem of all for local government is that of finance. One of the main principles put forward by Siriboe was that Districts must be sufficiently large to benefit by economies of scale. In general, a population of 100,000 should be considered a minimum size, although certain under-populated areas have to be excepted. Regional Councils should be financed by direct Government grant based on a fixed formula so that regions of the wrong political persuasion cannot be penalised.

There have been a variety of sources of revenue for local authorities. In addition to block grants and development grants from central government, it was at one time possible to receive a loan from central government for capital expenditure. The bulk of autonomous revenue has come from the rating system which in the rural areas appears to have been mainly in the form of a poll tax.

An important aspect in considering a new system of local government for Ghana is how it relates to the traditional system of administration. In trying to curtail the power of the chiefs Nkrumah abolished traditional membership in

1. Part III of the Report of the Commission of Enquiry into Electoral and Local Government Reform, Accra, 1968, page 36.

1959. It is argued that the effect of this was to create rival and powerful centres of political influence, depending on the traditional loyalties of the people, which were hostile to the local authorities and contributed to their ineffectiveness. The new Constitution makes provision for traditional membership as follows:-

- Local Councils - not to exceed one-half of the number of elected members
- District Councils - one third to be chosen by Traditional Authorities in the District in accordance with custom and usage
- Regional Councils - not more than two chiefs from the House of Chiefs of the Region

In addition each Region has a Regional House of Chiefs which sends five members to a National House of Chiefs. Their functions appear to be principally concerned with the stool matters.

2.3. THE MINISTRY OF AGRICULTURE

The Ministry of Agriculture has suffered as much as any from the constant changes to which so many Ghanaian institutions have been subjected over the last decade or more.

When towards the end of the colonial era representative government was established in Ghana a ministerial structure was simply tacked onto the existing administrative framework, as in other British colonies, the colonial departments thus becoming responsible to a minister. The Department of Agriculture's activities in Volta Region, Trans Volta - Togoland as it then was, were administered from an Assistant Director's office in Kpeve. The region was divided into three agricultural districts supervised by Agricultural Officers (A.O's), Kpeve, Keta and Krachi-Buem. The A.O. at Keta was responsible for the development of the new Southern Savannah station at Ohawu as well as for junior and technical staff at Ohawu, Abor, Dzodze and Sogakope, whilst the one at Kpeve covered Kpeve, Ho, Kpandu, Hohoe, Kpedze and Peki. There were specialist officers for research, although overall supervision of trials was given by the A.O.

In 1959, shortly after Independence, the Ministry was re-organised into four divisions:-

- Scientific Services
- General Agricultural Services
- Agricultural Economics
- Cocoa Industry.

The Scientific Services Division was responsible for research with centres in

each of the five main ecological zones, the one for the Coastal Savannah being at Ohawu. The General Agricultural Services Division was the one in direct contact with farmers - other than cocoa farmers - and operated the extension service. The Region was still run from Kpeve with A.O.'s at Kpeve, Ohawu, Hohoe and Kete Krachi. In the southern part of the Region there were Agricultural Assistants (A.A.'s) at Ho, Frankadua, Kpedze, Dzedze, Keta, Sogakope and Abor. In addition to extension the A.A.'s were responsible for sub-district nurseries and demonstration and experimental plots. The names of the Agricultural Economics and Cocoa Industry Divisions indicate well enough what their functions were.

This structure lasted for three years. In 1962 there was a complete re-organisation of the institutional framework for agriculture. Agriculture had been a lagging sector of the economy for too long; it was to be given a dynamic new thrust. The means chosen for the agricultural revolution - in keeping with the move towards a more socialist political philosophy - were direct production by the state and the development of co-operatives farming. The four divisions of the ministry were superceded. Agricultural research was taken over by the Ghana Academy of Sciences and has never returned to the Ministry of Agriculture. The Agricultural Economics Division was simply liquidated, although some of its functions were continued in fragmentary form, e.g. price-reporting, by the credit and marketing institutions. The main engine for increasing production in the public sector was to be the State Farms Corporation, although the agricultural wing of the Workers' Brigade and settlements of the Young Farmers' League were also to play their part. The agricultural breakthrough was to be achieved through introduction of modern, large-scale, mechanised farming. The stations and extension services of the General Agricultural Services Division were absorbed into the State Farms Corporation. Graduate staff were withdrawn to Accra and it was made clear that only those with the right ideology were wanted. The State Farms Corporation was only interested in production and so trials and demonstrations were discontinued and many records were lost. At Asuansi the country's entire stock of citrus varieties was destroyed.

Responsibility for the development of co-operative farming was made the responsibility of the United Ghana Farmers' Council, which in the cocoa areas replaced the Cocoa Industry Division. It was the U.G.F.C., headed by the flamboyant Appriah Danquah, which on behalf of the cocoa farmers made "voluntary contributions" to the development budget. The emphasis on co-operative farming was here again to be on large-scale mechanised production. The only way in which an individual could now qualify for services provided by the state was as a member of a co-operative. However, since co-operatives need no longer be

registered, the more enterprising could establish their own. Many co-operatives were not genuine. As a result of the re-organisation some 14,000 employees of the Cocoa Industry Division were displaced. Many of these left agriculture altogether, whilst the rest were absorbed into the State Farms Corporation.

It was not long before it was realised that a serious mistake had been made in destroying the institutions providing services to the ordinary farmer. The draft of the agricultural sections of the Seven-Year Plan (1963-69) included the following:- "An Agricultural Extension Service will therefore be established to help organise, teach and lead these farmers in such a way as to be able to produce the quota expected from each area in Ghana."¹ In fact, much more than an extension service was created.

From 1964 a large number of divisions was established within the Ministry of Agriculture additional to the institutions mentioned above. The structure remains largely the same today, although there have been frequent minor changes in the meantime. The United Ghana Farmers' Council and the Young Farmers' League have disappeared. The tractor services of the former and settlement farms of the latter were at one time taken over by the Extension Services Division, but were subsequently transferred elsewhere.

In June 1968 there was a general re-organisation of the divisions and Regional Agricultural Officers were appointed in each region. The most important change, probably, has been the grouping of extension with other divisions - farm supplies, seed multiplication and plant quarantine - into the Crop Production Division. The functions of each of the divisions of the Ministry are described below. In addition to these the Minister of Agriculture has responsibility for a number of public bodies such as the State Farms Corporation.

Agricultural Development Co-ordination Unit

When the divisional structure was introduced in 1964 it was quickly realised that some sort of co-ordination was necessary, and an Agricultural Development Co-ordination Unit was established.

The Co-ordinator is the most senior technical officer in the Ministry in terms of rank, but this does not mean that the other divisional heads are responsible to him. The functions of the Unit were set out under twelve heads,² but the most important functions are the preparation of development programmes,

1. The Final Draft of the Seven Year Agricultural Plan (1963-69) of Ghana, Ministry of Agriculture, Accra (mimeo).

2. Ghana Official Handbook 1969. Ministry of Information, Accra, 1969.

co-ordination of the budget and feasibility studies. It has a difficult part to play, in particular, because the heads of each of the divisions have a vested interest in maintaining the status quo since a move to a more unified structure could only result in a diminution in their power and influence.¹

Farm Improvement

The Crop Production Division is probably the most important division of the Ministry. It is the one directly in touch with the farmer. Its main job is to run the agricultural extension service, but at present it also incorporates farm supplies, seed multiplication and plant quarantine.

In Volta Region the Regional Crop Production Officer has his office in Ho (as does the R.A.O.) The region is divided into agricultural districts, each with a District Crop Production Officer (who is an Agricultural Officer or a Senior Technical Officer). The three southern districts are administered from Ho, Sogakope and Denu, each with seven subdistricts.

In general, each sub-district is staffed by an Agricultural Assistant, occasionally Senior Agricultural Assistant or Field Assistant - who is the field-level worker. On the basis of the 1960 census, assuming two-thirds of the population in agriculture (the proportion for the region) there is a sub-district officer for every 15,000 of the agricultural population. There is in addition a small number of A.A.'s working on special projects, e.g. school gardens.

Towards the end of 1966 the U.S.A.I.D. mission reported on the organisation of the agricultural extension services in Ghana². The report found that "Organisationally the Agricultural Extension Service appears to have been unusually successful between 1958 and 1962 as it grew and gained experience. It was well staffed technically as indicated by the demand for Extension Service personnel by the universities, research organisations and administrative agencies outside of Extension since 1962". It had, however, suffered a disastrous setback during the period 1962-65 and has lost a large part, but not all of its best men. "Farmers' confidence has been dealt a near death blow according to some senior extension personnel."

The author's views were that Ghana's top extension workers were conversant with the principles of agricultural extension, (i.e. reflecting farmers' needs and persuading farmers to innovate), but that there was evidence that top government did not fully realise these basic principles; that there was need for the economic planners and extension administrators to put their heads

1. At the Regional level a similar problem of co-ordination now arises where the newly created post of Regional Agricultural Officer (R.A.O.) has chiefly the role of co-ordination between divisions, but with strictly limited power.

2. Ray.G. Johnson Report. Ghana Agricultural Extension Service Organisation
U.S.A.I.D. Mission to Ghana, November 1966 (mimeo).

together more on production goals and the place of extension in meeting them; and that both parties must know and take into consideration the quantity and quality of the resources available.

The thinness of the Extension Service on the ground was pointed out as being its main weakness. It had accepted responsibilities which got in the way of its relationship with the farmer. "More emphasis now seems to be placed upon organisation and staffing than upon goal achievement. Reports, attending meetings and office work are taking an undue amount of time when field work with farmers is required." A further weakness was lack of an effective technical backstopping; technical information was limited in availability to the field man.

"A subject matter specialist is not at hand when required, services must be obtained from research and educational staff outside the administrative jurisdiction of the Ministry of Agriculture. Any meaningful effective large programme for agricultural development would require complete backstopping in agronomy, in fertilizer use and application, and in pest control at the very least." None the less it was felt that there is ample technical information ready in research findings and reports for use on a limited number of crops, using fertilizer as a basic production input to initiate a limited well concentrated effort.

It was stressed that stability of objective and staffing is mandatory.

The principal recommendation of the report was that there should be a focus of attention upon limited areas and upon a minimum of food crops plus a concentration of resources on them. "Until the needs of the pilot area are completely met, the normal country-wide applied operations to all agricultural production should receive second priority for personnel, subject matter backstopping and other essential inputs". On the basis of this recommendation A.I.D.'s Focus and Concentrate programme, described below, was established.

A further important recommendation was that the "Extension Service be divested within two years of its commercial activities such as Direct Services, Mechanical Services and Seed Multiplication Farms. They are contra-indicative of rapid build-up of farmer confidence. They would be better in private industry (including co-operatives) or under separate government administration." Mechanisation has, in fact, already been transferred to another division and plans are afoot to implement the rest of the recommendation.

Other recommendations were that the Extension Service be made more mobile by providing District Officers with motor-cycles and A.A.'s with bicycles and that immediate attention be given to the marketing and distribution of both physical inputs and of the products grown. (D.O's now appear to be well provided for; some A.A.'s have motorcycles, but even so local travel is still difficult in many places).

The A.I.D. report on extension was written following a period in which a large proportion of the posts in extension - both administrative and in the field - were vacant. It also coincided with the establishment of the Crop Production Division and the amalgamation into extension of the various other services, such as mechanisation and farm supplies. There had not, therefore, been an opportunity to see how this would work out in practice. None the less, more than four years later the conclusions remain generally valid. Extension staff is still thin on the ground although there has been a move to concentrate some of their efforts; they still spend much of their time in paper work; they still lack mobility; there is still a lack of specialist staff; and the provision of inputs and the marketing of output are still serious sources of farmer dissatisfaction. Progress has been made, though, as will be clear from other parts of this chapter.

National extension policy is mainly directed towards cereal crops. There are well-established special organisations for cocoa and tobacco and new ones have been set up for cotton and kenaf which are virtually new crops.

The Crop Production Division draws up an annual programme which serves as a guide to the direction of change (see Appendix I)

In 1967 a crash programme was begun to step up maize and guinea corn production, but it has as yet had little impact. Guaranteed minimum prices were introduced with subsidies on fertilizer and pesticide. A demonstration pack has been prepared with new maize seed (Diacol 153) fertilizer, pesticide etc.; the idea is for farmers to plant one-tenth of an acre from the package and one-tenth as a control. This is as yet on a small scale. The Ministry argues that it cannot as yet provide a package for cultivation - as opposed to demonstration - because of the credit and distribution problem created. It was hoped in the 1970 major season to provide a similar demonstration for rice-growers.

In 1968 as part of the programme, credit was made available by the Agricultural Development Bank for maize-growers at the rate of N/ 10 per acre up to 10 acres provided that not less than four were planted. Credit was provided in three instalments. This scheme has now been modified and expanded to apply to three crops:-

| | First Instalment <u>after clearing</u> | Second Instalment <u>after weeding</u> | Third Instalment <u>after harvesting</u> | Total <u>per acre</u> |
|-------|--|--|--|--------------------------|
| | NØ | NØ | NØ | NØ |
| Maize | 7 | 5 | 3 | 15 |
| Rice | 10 | 7 | 3 | 20 |
| Yams | 50 | 5 | 5 | 60 |

Through this scheme farmers are encouraged to form themselves into groups for marketing (not formal co-operatives) and to provide themselves with a store. But again the programme has been slow to start, and there have been complaints about payments, both by farmers and by the A.D.B. In addition to its campaign to increase cereals production - reliance for increasing rice production is placed on new varieties developed at Kpong - the extension service is also giving emphasis to improved storage methods, particularly control of weevils in maize.

In future, responsibility for the development of cereals production will lie with the newly-established Grains Development Board. What the effect on the extension service will be is not yet clear.

Working very closely with the extension service in Volta Region are two outside agencies operating special programmes: the A.I.D. Focus and Concentrate Programme and the U.N.D.P. Project for "Increased Farm Production through Fertilizer Use", usually known as the F.A.O. Fertilizer Project. In Volta Region the Focus and Concentrate Programme is operating in two districts - Ho and Kpandu - under the direction of the regional A.I.D. adviser in Ho. The object of the programme is to focus extension effort on a few farmers and to concentrate resources on them, so that extension is not frustrated by the farmers' inability to acquire inputs. The programme was designed to run for three years, until 1972. During that period 50 farmers in each of the two districts will have joined the scheme, together with 10 from each of the other districts. Farmers are chosen by the sub-district officer on a basis of their willingness to co-operate and their access to land. For each of these he surveys the farm and prepares a farm plan showing farm layout; crop rotation; estimated labour needs; requirements of seed, pesticide, fertilizer, and equipment; a calendar of farm operations; a farm budget; and an achievement report.¹ It is hoped to establish a model farm in each of the two districts. Special arrangements are made for focus and concentrate farmers to receive inputs (the "Concentrate" part of the operation),

1. In 1971/2 literate farmers will be encouraged to survey or plan independently.

but the service provided has not always been satisfactory. Whilst provision of seeds and fertilizer is improving it is doubtful if the tractor hire service can cope with a much greater demand. Attention tends to be concentrated on medium-scale (large-scale by local standards) farmers or those capable of operating on this scale. Almost all of the farms in the scheme are accessible by truck. It is hoped that the main impact of the programme will come through the demonstration effect, but the gap between the resources available to scheme farmers and the others may be too great.

The F.A.O. Fertilizer Project is a follow-up to the Freedom From Hunger Campaign Fertilizer Programme which operates in nine countries of West Africa and has as its aim the promotion of fertilizer use through the laying out of demonstrations and trials in all parts of the country. The F.A.O. project includes not only all aspects of fertilizer use, such as strengthening the distribution network and assisting the Government in formulating long-term fertilizer policy, but also takes in processing and marketing, particularly through co-operatives, introduction of improved varieties and better farming practices, and storage. The project will be carried out in three areas representing ecological types; fringe forest, transitional zone, and savannah. Most of the work so far has been concentrated in Ho - Kpandu Districts ('transitional') of the Volta Region. The project manager is a specialist in soil fertility and provision is made to continue his post for the full five years of the project. Other expert staff, including two agronomists, a soil chemist, and two co-operative officers will stay in Ghana for shorter periods. As yet efforts have been concentrated on trial and demonstration plots for maize and cassava. Junior staff were taken over from the F.F.H.C. programme, some of whom had 5 - 6 years experience in laying out trials. Twenty demonstration plots laid out in each of the major and minor seasons in 1969, all on farmers' fields, were expanded in 1970/1 to 50 and will reach 100 during 1971/2. The next step will be extension advice to the farmer on plant population, variety, fertilizer, pesticide, land-preparation and timing and frequency of weeding. This will be provided by 10 A.A.'s (part-time with F.A.O.). Once again provision of inputs has not been altogether satisfactory. F.A.O. provide their own fertilizer, but the supply of seed is not yet assured.

The Crop Production Division is also responsible for farm supplies and seed multiplication. These were at one time established independently, and it is intended in the future that these services should be supplied by private

enterprise. The Farm Supplies Division was created early in 1967 to provide at cost, seeds, seedlings, livestock, insecticide, chemicals, fertilizers, tools and equipment. It has, however, been seriously handicapped in its operations by shortage of funds. In addition, delays in importing goods, probably resulting more from administrative hold-ups than from import restrictions, have caused a reduction in effectiveness.

Seed multiplication is undertaken by foundation seed farms and a few registered growers. The farms are at Asikuma (Volta), Okyereko (Central), Ejura (Ashanti), Nyankpala (Northern) and Kwadase, which is also the seed introduction station. Breeder seed is received from the plant breeders in the universities and the Crops Research Institute. Then bulked up seed - of varietal purity - is distributed through Crop Production Officers. The few registered growers are concentrating on maize, although it is planned to have rice grown by registered growers. Seedlings of oil palm, coconut, rubber etc. are produced by the Crop Production Division in nurseries spread throughout the country. In Sogakope District, for instance, there are an oil palm nursery at Agbakofe and a coconut nursery at Kpedzeglo.

A National Seed Committee, chaired by the Agricultural Development Co-ordinator, has been set up. Its members are plant breeders from the universities and C.R.I., and officers of the Crop Production Division, including the Seed Multiplication Unit. The Committee decides which varieties of seeds to multiply. Plans for the amounts to be produced are based on acreage figures provided by the Economics and Marketing Division. Multiplication of the following varieties is now in progress.

| | |
|------------|--|
| Maize | Diacol 153 (being issued) Composites 2,3 Mexican 70 |
| Rice | 1R5, 1R8 (being issued) C463 |
| Groundnuts | Manipinta |
| Yams | Kpuna Larbakor |
| Vegetables | Lettuce Carrots Tomatoes Egg Plant Bawku onion |

Cotton and Tobacco are handled separately (see Section 2.4.).

No multiplication is being done in sorghum, millet or cassava.

Apart from imported vegetable seeds, there is no commercial seed distribution in the country. The Government would like to stimulate commercial activity in this field. For other farm inputs there is a very strong case for trying to encourage commercial firms to take over distribution, but they will only come in, of course, if demand has been stimulated sufficiently. The reason for preferring commercial firms is that Government accounting arrangements simply do not allow Government Departments to operate a business enterprise efficiently. But commercial enterprise need not be a private enterprise. Whatever the arrangement, distributors will need to maintain a close liaison with the extension service and the Government planning departments.

Economics and Marketing

Apart from special studies, the Economics and Marketing Division has three routine tasks to perform: crop production statistics, market reporting, and cocoa forecasting. (The last is applicable only to cocoa growing areas).

The inadequacy of crop production statistics in Ghana is freely admitted, not least by those responsible for collecting them. Until the 1960's there was no country-wide survey of acreages and production of crops in Ghana, what there was being based on regional estimates. For small-scale farming an extended pilot survey in 1963 replaced the planned census. On the other hand, large-scale farming was much easier to survey and in 1964 a complete enumeration was carried out.

Revised estimates have been made more recently, and now a Census of Agriculture is underway, being carried out in two Phases, in 1970 and 1971. Phase I consists of the complete enumeration of all households in sample areas, followed by sets of questions first about the holder, holding and farm population to a high proportion of those enumerated, and second about number of livestock kept, labour employed, size of fields etc. to a smaller number of householders. Phase II, using samples of those already enumerated in Phase I, is concerned with the investigation of crop yields, farm inventories and labour inputs. Household composition and livestock numbers will be re-enumerated during Phase II.

In a relatively short time a large body of knowledge about the rural sector will be available, of a standard of accuracy far higher than obtaining hitherto. Problems of investigation have not, of course been wholly resolved. The definition of 'household', the counting of all the plots of land in current use, and all animals, estimating yields in mixed crops, to name only three, will continue to present problems in scattered and shifting agriculture which is typical of much of Ghana.

Results will be available at District level for many variables.

There are three aspects to market reporting: prices of selected food crops; the supply situation; and commodity flows.

The first two activities are carried out by the same enumerators. It is found that girls are best for this type of work. Each enumerator will spend each day in a different market (market days normally rotate between markets) going round all the wholesalers for those of the 30 commodities which are being traded that day. She will determine the average price in the market by interview and observation of transactions. The enumerator will also make a subjective assessment of whether the qualities traded are adequate, satisfactory, or poor. Because of the subjective nature of the work, it is necessary to keep a close check on the judgement of the enumerator. This is done by a supervisor (F.A. rank) who goes to the market at intervals. Reports are published weekly, monthly, and quarterly. There was a time when prices were reported on the radio, but this has ceased owing to communication difficulties combined with the increasing number of markets.

An attempt is also made to assess commodity flows, both inter- and intra-regionally. The technique is for enumerators (a different set) to interview drivers of trucks or rather sellers at the gate of the market to determine where they have come from, what quantity they are carrying, how much they paid for it, and how much they will ask for it. The effectiveness of the method depends very much on the degree of confidence established between enumerator and trader.

As well as the routine work described above the Economics and Marketing Division also undertakes specific work in connection with other economic problems. Recent examples are the participation of the Chief Agricultural Economist in the Committee of Enquiry to investigate Allegations of Irregularities and Maladministration in the Food Marketing Corporation, and the part played by the Division in preparing the Ghana Feeder Road Study.

Animal Husbandry

The Animal Husbandry Division's task is to plan and give leadership in the work of improving the breeds and to help in increasing the production of livestock, poultry and their products in the country. This includes:

- (a) Planning and importation of pedigree animals;
- (b) Giving guidance to the breeding programmes of co-operative and individual farmers;
- (c) Organising the use of artificial insemination to spread the benefits of outstanding bulls throughout the country.
- (e) Organising the production of balanced rations for livestock and poultry.
- (f) Introducing correct methods of ranching and paddocking livestock to provide adequate feed especially during the dry season.
- (g) Taking active steps for the early establishment of co-operative livestock groups to serve as a basis for mass improvement of cattle, sheep and goats;
- (h) Organising and establishing dairy farms and milk processing plant for the processing and bottling of fresh whole milk for sale in Ghana.
- (i) Arranging for the importation of dairy breeds of cattle into the country for the purposes of milk production and establishment of dairy industry for Ghana.
- (j) Establishing improved pastures for dairy cattle and improving their feeding and housing conditions geared towards higher milk production;
- (k) Organising local milk producers and educating them in the production of clean milk suitable for human consumption; and
- (l) Establishing milk collection centres on the plains and throughout the milk producing areas in Ghana.¹

The last five objectives in the above list have been added only recently and suggest a more important role for the dairy industry than it, in fact, has. Certainly, as far as southern Volta Region is concerned, it seems unlikely that it will be of any significance for some time to come.

The Division is well satisfied with progress in pig and poultry production. Commercial poultry production in particular, has experienced a boom over the last few years based on high-cost feed and high prices for products. Attention is now being devoted more to ruminants. Policy in Volta Region tends to be concentrated on the breeding of livestock for distribution to farmers to help them to improve the quality of their stock. Another aim is to act as a leader to all livestock farmers in the Region by demonstrating livestock management practices, although it has no extension staff of its own. The Division has a number of farms throughout the country - mainly in the north where the bulk of the country's livestock is - for rearing beef and dairy cattle, sheep, goats, pigs and poultry. In Volta Region it has a farm at Amelorkope near Adidome for beef cattle. Also at Adidome is the national pig multiplication centre which provides Large White pigs for the rest of Ghana. There are a few sizable pig farms in the area, notably at Ohawa, Sogakopé and Peki.

1. Ghana Official Handbook 1969 p.98.

It is strange that goats, of which 27.3% of Ghanaian householders have at least one, and the meat of which is favoured, have received very little attention from either Government or large scale producers.

Animal Health

The health of Ghana's livestock population is the responsibility of the Animal Health Division of the Ministry. The objectives of the Division are to improve diets by expanding meat production; to contribute to national development by encouraging secondary industries based on livestock products; to safeguard public health when diseases are communicable to man; and to alleviate suffering among animals.

It is staffed in Volta Region by a veterinary officer, a stock superintendent, a dozen or so veterinary assistants, and 25-30 veterinary guards.

Agricultural Settlement

The basic aim of the Agricultural Settlements Division is to promote the development of settled permanent farming in the place of shifting cultivation. It runs two programmes, one for adult farmers and one for young farmers.

The purpose of the adult farmer scheme is to help trained agriculturists or educated experienced farmers to establish modern commercial farms. The role of the Agricultural Settlements Division is to offer assistance in farm planning and to supervise the extension of the farm plan for a while. In theory special finance has been made available, but there is no fund set aside for this purpose. Potential borrowers sponsored by the Division have to take their chance, therefore, with other claimants to the A.D.B.'s resources, and it is not unknown for borrowers with a recommendation from the Division to be turned down by the Bank. When the scheme was set up in May 1967 it was envisaged that there would be in total 5,000 projects ranging in value N£ 1,000-10,000 according to the ability of the farmer. The cost was estimated at N£ 10m. over a 3-5 year period. Progress has, however, been very much slower than this timetable would suggest. The scheme was given a new filip in 1969 when it was announced that special arrangements would be made to release government servants to take advantage of it.

The other aspect of the Settlements Division's work is the programme for young farmers which it inherited from the Young Farmers' League. The original programme was far from satisfactory and has been considerably amended. Settlement farms were badly sited and of the 40 taken, over half were subsequently abandoned.

The land for the farm was not always legally acquired. The Young Farmers' League did not have technically qualified officers and some of the settlers were illiterate. Under the new programme Middle School (form IV) leavers 17-25 years of age are recruited. They are allocated a five-acre plot of land which they farm under supervision for a three-year training period. Plots are blocked in order to facilitate mechanisation. At the end of this period those who show themselves capable, possibly only one or two per settlement, will be assisted in the establishment of a 50 acre farm. (In practice, settlers commonly work together as a group at the present time).

There are opportunities for training selected settlers at Farm Institutes. Until recently settlers have received a daily subsistence allowance¹ of 40np and have turned over the crop to the management. In future, they will keep the proceeds from the crop, but will receive a smaller allowance. The allowance plus the cost of inputs and services will be treated as a loan repayable over a five-year period. An important part of the scheme is the formation of a committee of settlers - an embryo co-operative committee - to give them experience in management and marketing. In southern Volta Region there are settlement farms at Apeguso (near Frankadua), Afegame (near Kpetoe) and Aveyime. At Afife there is a special project with technical assistance from Nationalist China.¹

Training and Manpower

The general career structure of the Ministry of Agriculture (permanent and pensionable posts) is shown in the following table.

| | |
|------------------------|--|
| <u>Graduate staff</u> | Principal Agricultural Officer (P.A.O.) Senior Agricultural Officer (S.A.O.) Agricultural Officer (A.O.) |
| <u>Technical staff</u> | Senior Technical Officer I (S.T.O.I.) Senior Technical Officer II (S.T.O.II.) Senior Agricultural Assistant (S.A.A.) Field Assistant I (F.A.I.) Field Assistant II (F.A.II.) |

The training requirements for these posts are set out in Appendix II.

1. Afife was one of the State Farms begun with Russian technical assistance. The Russians left at the time of the coup leaving a 140 acre irrigation scheme with channels built but no drains. With the help of the Chinese a few acres have been completed and rice and vegetables are being grown. It is impressive to see the Chinese technical assistance personnel working alongside the settlers in the field and the level of work and discipline is very high. They are handicapped, however, by the fact that very few of them speak English. The techniques being introduced are intensive, which is probably appropriate on a scheme where capital investment has been high, but will be less so elsewhere.

Obviously if agriculture is to have a sensible training policy there must be some idea of what manpower requirements are likely to be over as long a period as possible. Unfortunately, there has been so much change in the industry over the last few years and the uncertainties are still so great that it has not proved feasible to prepare a manpower plan. Divisions prepare short-run projections of their manpower requirements, but these are only of two years duration, shorter than some of the training courses.

One of the tasks of the Training and Manpower Division is to advise the Ministry of Education on agricultural education in the country. Until recently there has been no formal agricultural training in schools. The Ministry of Education is now contemplating introducing agriculture as part of middle school education. Elementary education was formerly divided into six years primary and four years middle. The new system retains ten years as the basic period but what was originally taught in ten years will now be completed in eight. Secondary school students will start in secondary school in their ninth year whilst others will continue in elementary school in their ninth and tenth years being "oriented" to occupations. One of these will be agriculture. It is not yet clear how the system will work. The Chief Agricultural Training Officer would prefer that students be "exposed" to agriculture rather than receiving more definite instruction. The success of the scheme will depend upon the competence of the teachers. There is a training school for rural science in the north and the Ministry of Agriculture has offered special courses in subject matter at Kwadaso. There is influential opinion against teaching agriculture in secondary schools. Some secondary schools teach agriculture, but it is usually the weaker students who are encouraged to do it.¹

Mechanisation and Transport

As in other African countries attempts to mechanise agriculture in Ghana have not met with much success. Large-scale state farms were established for this purpose in the 'Socialist' period, but also small-scale farmers were to benefit through United Ghana Farmers' Council Co-operatives. After the U.G.F.C. was disbanded the administration of mechanisation was taken over by the Extension Service Division. At the take-over there were 526 crawler tractors, of which 407 were serviceable, and 1,201 wheel tractors of which 591 were serviceable. Later the Mechanisation and Transport Division was formed. The policy announced was to provide mechanised services principally to large-scale farmers, co-operative and group farmers.

1. Five secondary schools have been selected for a pilot programme in agricultural education, financed by the United Nations.

The charges for operations are as follows:-

| <u>Crawler tractors</u> | <u>per acre</u> | <u>Wheel tractors</u> | <u>per acre</u> |
|--|-----------------|--|-----------------|
| Clearing virgin forest | NØ 174.00 | Ploughing and harrowing | NØ 6.00 |
| Clearing secondary forest | 112.00 | Ridging | 4.00 |
| Clearing coastal thicket | 80.00 | Inter-cultivation | 2.00 |
| Clearing woodland savannah | 40.00 | Planting or drilling (with or without fert.) | 5.00 |
| Clearing bush | 26.00 | Slashing | 4.00 |
| <hr/> | | | |
| Earth work per 8 hr. day | 60.00 | Rice Harvesting per 8 hr. day | 30.00 |
| | | Carting per mile | 20 np |
| | | Maize shelling per bag | 50 np |
| | | Rice hulling per bag | NØ 3.50 |
| <u>plus</u> NØ 1.20 per mile travelling cost | | <u>plus</u> 20 np per mile travelling cost | |

These charges were set by the U.G.F.C.C. some six or seven years ago, since when there has been a devaluation and considerable inflation. Based on some rather crude calculations, the Mechanisation and Transport Division estimates that there is a more than 50% subsidy on crawler tractor operations and of almost 50% on ploughing and harrowing; but it may be much higher. Farmers frequently complain that the charges are too high but at these rates there is unsatisfied demand with the present availability of tractors. Maintenance has been a serious problem with the supply of spares limited by both the licensing system and budgetary constraints.

There are four units or sub-units in Southern Volta at Ho, Tsito, Abor and Sogakope. Contracts will not normally be accepted further than 15 miles from the station and for blocks of less than 5 acres. Payment in full has to be made in advance. The operations normally requested are ploughing and harrowing, which accentuates the seasonality of demand. Figures for the southern Volta Region stations show a heavy concentration in the first half of the year.

There seems to be no clear policy on mechanisation other than a vague belief that in the long-run it will lower the costs of production. There is a keen desire to improve the efficiency of mechanisation services and the present philosophy is that private enterprise is more likely to achieve this. Already a number of individuals have set themselves up as contractors. For example, where

the Government service has proved inadequate in Sogakope District, machinery contractors have come in from Greater Accra Region.

The Government recently announced its intention to sell surplus tractors after reconditioning. Demand for them is surprisingly high considering the operating difficulties likely to be encountered, but untimeliness in the announcement has led to many frustrated hopes for this season.

Irrigation and Reclamation

The body concerned with the appraisal of Ghana's irrigation potential is the Irrigation and Reclamation Division. It deals not only with the feasibility of irrigation projects but also with their implementation. What is striking is how few of the projects appraised have been brought to a stage at which a satisfactory decision could be taken about implementation.

Of relevance to Volta Region are the U.N.S.F. Survey of the Lower Volta Flood Plains (1963) which studies the feasibility of irrigation development on both sides of the river below Kpong up to the 50 foot contour (the Asutsuare sugar project developed from this); the Reconnaissance of the irrigation potential of the Black Clay Soils of the Accra Plains (1963); and the Sugar and Rice Production Project in Accra Plains (1967), which drew up plans for irrigating 11,000 acres for rice and 9,000 acres for sugar cane around Aveyime. Only the last of these seems of much current interest. Two projects, however, are currently of very great interest; both are controversial. The first of them, the Feasibility study for the Keta-Av Project (1968) is concerned with a multi-purpose development of the Keta-Av Lagoons area for flood control, agriculture, transportation, power, water supplies and recreation. A preliminary study by the Irrigation and Reclamation Division has indicated that about 40,000 acres of swampland could be reclaimed and made into fertile land. The proposals submitted are for a project valued at almost N¢ 34m.¹ The second project is the Agricultural Development Project for Dahwenya and Afife Farms (1969) undertaken by a consortium of Italian firms calling themselves Joint Venture.

1. An odd feature of the scheme is that the German consultants stipulated that the N¢ 240,000 cost of the study would not be payable if it showed development to be unjustifiable, or alternatively, if the Government commissioned the company to go ahead with designs, construction supervision, etc. within two years. It would have been very surprising if they had discovered development to be infeasible.

Joint Venture were invited to prepare plans for rehabilitation of the existing systems both at Afife and Dahwenya. The proposal for Afife is for a 5,000 acre scheme, but there have been criticisms on technical grounds as well as objections that the costs are too high and the terms for financing unfavourable.

The Irrigation and Reclamation Division is concerned with agronomic aspects of crops and soils as well as the engineering ones. It has sections for engineering, agronomy and soils. In Volta Region the staff consists of an engineer, and agronomist and a survey team. In the past some 80-90 dams have been built in Tongu, the cattle rearing area of southern Volta, in connection with the Southern Savannah Project. Plans for 25 others and also for 25 smaller dugouts are in hand. (Some of these will figure prominently in subsequent surveys and plans).

Other Functions of the Ministry of Agriculture

These are covered by, for instance, the Cocoa, Produce Inspection and Fisheries Division but these are of little relevance to S.E. Ghana's agriculture.

2.4. SPECIAL CROP DEVELOPMENT BOARDS

An important part of Ghana's agricultural development strategy is the establishment of special boards for the development of particular crops. The peculiar feature of these boards is that they are responsible for all aspects of development of the crop, starting with the sponsorship of research and finishing with processing and marketing. At present four have been set up, for tobacco, cotton, kenaf and grains.¹

The Ghana Tobacco Company

The Pioneer Tobacco Company (a subsidiary of British-American Tobacco Co.) has a monopoly of cigarette making in Ghana. The Ghana Tobacco Company has been created to provide the tobacco. It is a limited liability company with shareholding and board members as follows:-

| | <u>Shareholding</u> | <u>Board Members</u> |
|-------------------------------|---------------------|----------------------|
| Government | 35% | 2 |
| Pioneer Tobacco Company | 30% | 2 |
| Agricultural Development Bank | 20% | 1 |
| National Investment Bank | 15% | 1 |
| | | + Managing Director |
| | | <u>7</u> |

The authorised capital of the company is N¢ 1m. It is managed by the Pioneer Tobacco Company.

1. The State Sugar Products Corporation has been omitted on the ground that sugar production is centred on estates.

The main tobacco growing area in Volta Region is the Akatsi-Abor area. In 1968 there were a little over 3,000 farmers growing on average one-third of an acre each. Almost the whole acreage was devoted to air-cured tobacco, the area producing a little over $\frac{1}{2}$ m. lbs in 1968, nearly half of Ghana's total of air-cured tobacco and approximately one-fifth of the total tobacco production. Air-cured tobacco, of course, receives a much lower price than flue- or fire-cured. State Farms in Southern Volta were growing tobacco, but have now dropped it, largely because standards of husbandry were not good enough. There are fire-curing barns available which are not now in use. Kpandu produces about one-fifth as much as Akatsi, which is mostly flue-cured and produced on fewer holdings.

At present Ghana supplies only about one-half of her domestic tobacco requirements. Policy is to expand production rapidly and to try to develop an export market from 1974 or 1975. In order to achieve this G.T.C. has its own extension staff. It has technically qualified area managers in each of the main producing regions - in Volta Region at Kpandu - who are responsible for one or more stations - there is one at Akatsi - which are also staffed by technically trained staff. Throughout Ghana the Company has some 160 Field Assistants. In addition to giving advice on cultivation the Company helps farmers to establish barns. Loans are arranged from the Agricultural Development Bank, up to N \textasciitilde 300 per barn. In some parts of the country farmers want to expand their acreage, but find labour a constraining factor. G.T.C. is assisting ten of them to buy tractors by acting as intermediary for the repayment of loans to the A.D.B. An officer of G.T.C. does fertiliser trials, but other research is done by the Crops Research Institute. All inputs are supplied to the farmer on credit, against his crop at harvest time. Buying centres have been established throughout the tobacco areas and farmers are being taught to grade. The Company hopes in time to encourage farmers to form co-operatives, but at present it deals with individuals.

The Cotton Development Board

Within the last few years a cotton textile industry has been established in Ghana and the Government has decided to promote cotton production in order to substitute for imports. Technical assistance in the establishment of a cotton industry is being received from both F.A.O. and the French C.F.D.T. under contract to the U.N. Development Programme.

The Cotton Development Board was established in May 1968. It has been

given the power to:-

- (a) establish a number of ginneries and other processing equipment in selected cotton growing centres, or take over the operations of existing ones.
- (b) organise the efficient transportation of the seed cotton from the farms to the ginneries.
- (c) organise cotton growers into co-operatives with the help of the Department of Co-operatives, to fix prices and pay producers at buying points.

It will be seen from the above that the functions of the Board cover a wide range of activities. It is proposed that cotton production will be very highly organised. Producing areas are divided into sectors with a production officer (graduate) in charge of each. There are currently six production officers mainly in the north. The next tier of the hierarchy are supervisors (A.A. level - Kwadaso plus in-service training). When the programme is fully operating each will be responsible for 2-3,000 acres. Next come cotton production assistants (F.A. level, or a village man trained for the job) who will be responsible for a block of, say, 200-300 acres. All production will be organised in blocks - individual farmers will not qualify. At the moment the minimum block size is 12 acres, but it is hoped as time goes by to have much larger blocks. There are at present 56 field staff (production officers, field supervisors and cotton production assistants). Over-staffing is deliberate to allow for expansion. Although individual farmers may not join the scheme, they will be able to sell their cotton to the Board. They will, however, be at a disadvantage compared with members, since they will receive only the same price, although members will have received free inputs. Members of the scheme are provided with seed, fertiliser and insecticide and the cost is taken into account in fixing the price of seed cotton. It is hoped that farmers will form co-operatives to buy their own tractors.

As yet the Cotton Development Board has not begun operations in the Volta Region. There have, however, been pilot projects sponsored by the Crop Production Division at Adaklu and in Kpandu District. The C.D.B. has helped by providing seeds and insecticide, and has also given N~~o~~ 120 for experimental work at Adaklu to test the suitability of varieties to local conditions. This project is as yet on a small-scale only; it was planned to plant 110 acres in 1968 but only 14 acres were planted and the scale has remained small. Cotton does not appear in the 1971/2 Regional Crop Production Targets (see Appendix III).

The Kenaf Development Board

Kenaf is an even newer crop in Ghana than cotton. The Kenaf Development Board has, therefore, to start right from scratch. It is solely responsible for production, processing and marketing, not only of kenaf, but of allied fibres too. A bag-making industry for producing bags to export the cocoa crop already exists in Ghana; the idea of developing a local fibre-growing industry is to replace its imports of raw material. To this end it is proposed, if necessary, to control imports of unprocessed fibre to protect local growers. The Board will set the price to the producer. As yet the kenaf-growing industry is barely into its infancy, and the Kenaf Development Board will have to feel its way.

The Grains Development Board

Grains are in a different category from the three crops discussed above. They are widely grown and consumed and freely traded. The role of the Grains Development Board is not to promote a new cash crop, but to improve the production of existing food crops. It is the newest of the Boards discussed here.

The purpose of the Grains Development Board - for the time being - is to promote the production of grains and legumes. The crops covered are maize, rice, guinea corn, millet, groundnuts and cowpeas.

The Board will have the following functions:-

1. The multiplication and distribution of improved seeds.
2. The organisation of farmers into "farm associations" (production groups rather than co-operatives).
3. To know the farmers and their requirements for inputs and credit.
4. To give support to markets for the crops in its schedule.
5. To collect data on production, demand, and imports.
6. To organise research and extension.

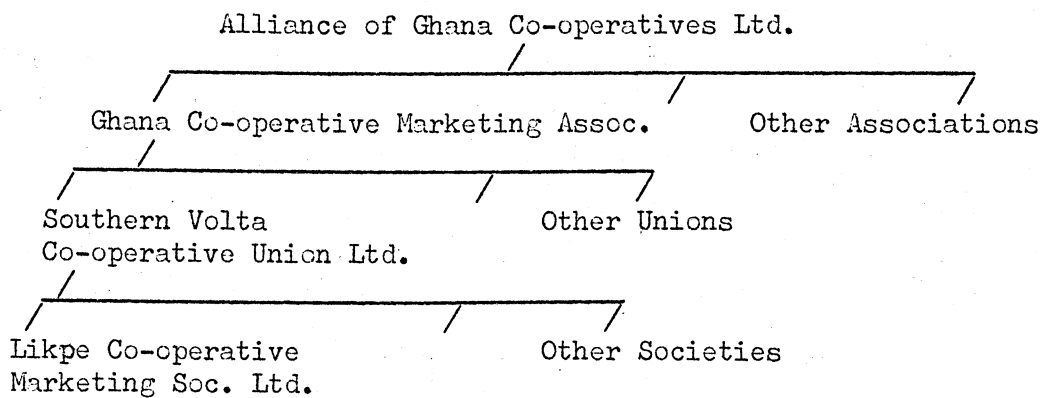
There is a tentative aim of achieving self-sufficiency in maize, guinea corn and millet production by 1972 and in rice by 1974. In important growing areas the Board will have its own officers. Its role with respect to research will be one of encouraging work on certain topics rather than setting up its own programme. Similarly with direct services; rather than providing direct services itself, the Board will help to make them available. The basic approach of the Grains Development Board will be to introduce a package of improvements rather than pushing particular innovations.

2.5. CO-OPERATIVES

In colonial times co-operatives were the responsibility of the Department of Agriculture, the Department's Agricultural Assistants being an integral part of the co-operative set up.

The present role of the Department of Co-operatives, which is now within the Ministry of Labour and Social Welfare, is basically an educative one, although the head of the Department also acts as registrar. It is the responsibility of the Department to foster all forms of co-operative activity and to advise and guide members in the best way to run their organisations. It runs regular courses for secretaries of societies as well as for re-training its own staff.

The structure of the co-operative movement itself is a four-tier one:-



The Alliance of Ghana Co-operatives Ltd. is made up of the five national co-operative associations. In addition to the Ghana Co-operative Marketing Association there are associations for distillers, fish marketing, transport and a wholesale agency.

The functions of the Alliance are the promotion of co-operation, information collection and research. It has extension staff whose function is to help the associations, unions and societies to operate efficiently.

The Ghana Co-operative Marketing Association is responsible for organising the sale of members' produce on an agency basis and also helps to arrange credit.

National policy is to promote co-operatives where these have a useful function to perform. Thus other agencies such as the Agricultural Development Bank or the Cotton Development Board will frequently promote co-operative

groupings in pursuit of some other objective. There is a tendency, however, to concentrate at present on ad hoc groupings rather than formally registered co-operatives. It seems to be recognised that the latter are difficult to create and prone to failure.

One reason for the policy of promoting co-operatives has been that they are seen as a convenient channel for credit. The availability of credit has then been offered (in a vague way) as a bribe to farmers to form themselves into a co-operative society. The result is that many societies have no genuine co-operative function. Also farmers become angry and their confidence in Government agencies is shattered when they do not get credit in spite of having created a co-operative.

2.6. CREDIT

During the Nkrumah regime, the U.G.F.C. became the main channel for loans and advances to farmers through the United Ghana Farmers' Council Co-operatives. In 1963 a National Investment Bank was established to promote agricultural as well as other enterprises in the public co-operative and private sectors. In 1964 the Bank of Ghana established a Rural Credit Department to prepare the way for an agricultural bank; in 1965 the Agricultural Credit and Co-operative Bank was established, which in 1967 became the Agricultural Development Bank. The A.D.B. provides loans to co-operatives, but they compete on the same terms as any other individual or organisation.

This then is the structure of institutional credit in Ghana today. The N.I.B. provides credit for the really large schemes - some 30-40% of its funds go into agriculture - whilst the A.D.B. provides loans on a smaller scale; even this, however, is far from small-scale, except for the special scheme for maize growers. In 1968 the A.D.B. approved 109 loan applications in the sum of N $\text{\textasciixchar}236$ 1,215,091, an average of over N $\text{\textasciixchar}236$ 11,000. At the end of the year outstanding loans, including interest, amounted to N $\text{\textasciixchar}236$ 2,322,000 distributed as follows:-

| | |
|------------------|--|
| Fishing | N $\text{\textasciixchar}236$ 510,000 |
| Food crops | 491,000 |
| Livestock | 532,000 |
| Industrial crops | <u>788,000</u> |
| | N $\text{\textasciixchar}236$ <u>2,322,000</u> |

Approximately 30% of this sum had been loaned in the public sector.

The commercial banks are beginning to venture into agriculture, but only warily and then on large-scale commercial farms rather than to peasant farmers.

It must be assumed that private money lending is of widespread importance, though no data of a general kind exist.

The Agricultural Development Bank's first branches were in Kumasi, Koforidua, Tamale and Hohoe, but others are being opened. The manager of a branch has authority to grant loans up to N¢ 2,000. Applications for loans of greater value have to be submitted to Accra for consideration by the loans committee. The loans officers are trained agriculturalists - university or Kwadaso - who place loans, supervise disbursements, and collect repayments. It will normally be the Crop Production Officer who introduces a farmer to the Bank. It is the Ministry of Agriculture's task to do the preliminary survey and plan before the Bank's Officers can do a feasibility study.

The policy of the Agricultural Development Bank was set out clearly in its programme for 1969:

"Our experience and achievements in the past indicate clearly that agricultural credit can be expanded only within the framework of an overall agricultural development programme including marketing, extension and availability of inputs. In addition to the above, there is the need for a good programme of infrastructural development which falls more appropriately under Central Government operations. Our programme of operation in the years immediately ahead would, therefore, have to be closely co-ordinated with the activities of other institutions working towards the attainment of similar objectives. Our forward programme has consequently been designed to put more emphasis on development of marketing facilities including storage and transportation. A larger proportion of our investment efforts would be directed to projects which can be tied to marketing or processing factories such as sugar cane, tobacco, rice, cotton, palm oil, rubber, groundnuts and tomatoes. In other cases where the marketing facilities do not already exist, part of the investment would be channelled into developing the market or storage as an integral part of the credit scheme. In general more emphasis would be placed on schemes that would result in increased production of foodstuffs and raw materials for local factories."¹

The advantage from the Bank's point of view of tying credit to marketing or processing is that loan recovery is made easier. None the less, because of

1. Agricultural Development Bank - Annual Report for the Year Ended 31st December 1968, Accra, 1969 p.13

the commitment to increasing food production, loans for food crops are made. These take longer to assess, because they depend more heavily on the character of the borrower. The Bank complains that extension staff do not supervise farmers with loans as much as they would like. In order to try to ensure that credit is spent for the purpose intended the Bank tries wherever possible to make payment against invoices. Of course, for expenses such as labour costs there is no alternative to a cash payment. The A.D.B. agrees that this is expensive, but feels that it is essential to effective loan-utilisation. The Bank accepts deposits from the general public, but as yet this facility has only really been used by borrowers.

2.7. COMMUNITY DEVELOPMENT

There are four aspects of community development work in the Ministry of Rural Development: namely, literacy, women's work, self-help projects and extension services. Literacy is seen as a means to an end and not an end in itself. There are three types of course (a) basic vernacular classes (b) advanced vernacular classes and (c) basic English classes. The latest trend is towards functional literacy, for example teaching farming at the same time as literacy. Women's work is concerned with such subjects as home management, child care, nutrition, sanitation etc. There are over thirty thousand women's groups spread over the country. Some ten Rural Training Centres throughout Ghana, one of which is at Ho, provide short refresher courses for women's groups who send their voluntary leaders on longer courses from which rural women can learn the skills which make for better rural living.

Self-help projects are probably the most important part of the Rural Development Department's work. The principal instrument is the Village Development Committee which will normally have the local Chief as its chairman. Village Development Committees have existed since about 1952, being set up originally to help Community Development with its work. In a few places Agricultural Assistants have found it helpful to work through them. The Committees are responsible for organising communal labour, raising and caring for funds, and the control of materials. A special rate may be charged by the local Council earmarked for a particular purpose. For instance, in the Local Government Bulletin for 14th November 1969 the Adaklu-Anyigbe Local Management Committee announced a special rate of NØ 2.50 on men and NØ 1.50 on women in Ave-Dakpa for a school building and of NØ 4.00 and NØ 2.00 in Agotime-Afegame

for the construction of a bridge over the river Todze. For its part, the Rural Development Department, apart from providing stimulation, can make available plans, construction materials, tools, machinery and transport services and the help of skilled workmen. The most popular self-help project is probably school building, but other projects undertaken have included street drains, latrines, feeder roads, water supplies, clinics, community centres, post offices, bridges and culverts. It is normally the duty of the local Council to provide most of these amenities, but people realise they can get them much sooner if they help themselves.

The final aspect of the Department's work is its extension services. This is basically a service organisation for other Ministries. The Department feels that it has special expertise in communication at a village level and can put features of Government policies or new ideas across to villagers much more effectively than technical officers can. For instance, towards the end of 1969 the extension services put a lot of effort into preparing people for the forthcoming population census, telling them what it was about and trying to enlist their co-operation.

The impact of Community Development, taking the country as a whole, has so far been patchy. In the Volta Region, whilst many V.D.C.'s exist, stories of success in self-help and other activities are scanty.

2.8. RESEARCH

The institutions for agricultural research have existed in roughly their present form since 1962. Prior to that the West African Research Organisation (W.A.R.O.) had been responsible for special crops, such as cocoa at the West African Cocoa Research Institute (W.A.C.R.I.) at Tafo, and oil palm at the West African Institute for Oil Palm Research (W.A.I.F.O.R.) in Nigeria, whilst other research was undertaken by the Scientific Services Division of the Ministry of Agriculture. In 1962 W.A.R.O. was dissolved and W.A.C.R.I. (now known as the Cocoa Research Institute of Ghana) taken over by Ghana. In the same year the Scientific Services Division was transferred to the National Research Council and called the Agricultural Research Institute. Very shortly afterwards it was taken over by the Ghana Academy of Sciences. In October 1968 the academic and research functions of the Ghana Academy of Sciences were separated and research became the responsibility of the Council for Scientific and Industrial Research. The constituent parts of the C.S.I.R. are

Animal Research Institute
 Building and Road Research Institute
 Cocoa Research Institute
 Crops Research Institute
 Food Research Institute
 Forest Products Research Institute
 Institute of Aquatic Biology
 Institute of Standards and Industrial Research
 Soil Research Institute
 National Atlas Project
 Herbs of Ghana Project

of which four are of particular relevance here.

Crops Research Institute

The Crops Research Institute was created in October 1964 from the Crops Research Unit of the Agricultural Research Institute. Its headquarters are at Kwadaso, near Kumasi. Its task is to undertake research into all crops, except cocoa, as the basis for the introduction of modern, scientific farming. The Institute has smaller stations in the various vegetational zones for agronomic and other investigations. The work of the Institute is spread amongst a number of sections. Plant Breeding is well established in the country having begun at Aburi in 1928. Successes include synthetic hybrid maize, higher-yielding varieties of groundnuts and rice, and improved types of cassava, sorghum and vegetables. Agronomy has been a comparatively neglected field in Ghana. Until 1957 there was no specialist agronomist in the country.

TABLE 8. YIELDS ACHIEVED BY C.R.I. STATIONS 1968

| <u>Crop</u> | <u>Station</u> | <u>CRI Yield (lb/acre)</u> | <u>Ghana average Yield (lb/acre)</u> |
|--------------------------------------|------------------|--------------------------------|--|
| Maize (grain) | Kwadaso | 5,800 | 990 |
| Upland rice (paddy) | Nyankpala | 3,630 | 1,275(all rice) |
| Dwarf sorghum (guinea corn grain) | Kwadaso | 7,200 | 493 |
| Groundnuts (unshelled) | Kwadaso | 4,008 | 841 |
| Kenaf (dried fibre) | Kwadaso Ohawu | 880-1,750 482-3,214 | |
| Tobacco (green leaf) | Awisa | 16,000 | |
| Sesame (grain) | Kwadaso | 1,500 | |
| Soya bean (seeds) | Kwadaso | 1,400 | |
| Vigna cowpea (grain) | Kwadaso | 2,370 | |
| Wheat (hulled grain) | Kwadaso | 1,440 | |

Source: C.S.I.R. Recorder Vol.7. No.1, January 1969.

Entomology and Plant Pathology sections were established as long ago as 1913. The entomologists have had success in control of yam-beetles and maize stem-borers and are currently working on the biology and control of cotton and sugar-cane pests. The plant pathologists' work has covered fungal infections, nematodes and concern, particularly, with Cape St. Paul wilt in coconuts. The Food Storage Section has done work not only on the storage of maize and beans but also on the enrichment of kokonte with groundnuts, soya and fish-meal. Investigations have shown post-harvest losses of grain of about 20%. The Plant Introduction and Exploration Section introduces new crops from foreign countries and tests them under conditions in Ghana. It also collects wild varieties from within Ghana. It has prepared a Master register of crop plants as a reference to exotic and indigenous species on the major research stations. There are special Crops Investigations for crops of particular importance or with special problems. Crops covered by recent investigations have included, amongst others, oil palm, cotton, tobacco, kenaf, coconut and rubber.

Soil Research Institute

The predecessor institutions to the Soil Research Institute grew out of the soil survey work initiated for cocoa areas at W.A.C.R.I. in 1945. A separate Soil Research Institute was established at Kwadaso in October 1964. The Institute has two main sections - Soil Survey and Soil Fertility. The Soil Survey Section carries out detailed surveys of particular farms as well as more general reconnaissances of larger areas. It has in the past given considerable assistance in the siting of state farms, Volta Resettlement farms, etc. It has also undertaken many regional surveys - mainly, it would appear, in connection with potential irrigation schemes. The Soil Fertility section is concerned with both natural and artificial means of maintaining the fertility of the soil. Prior to 1948 little work was done on artificial fertilisers for food crops. The work has subsequently expanded, mainly in connection with maize, guinea corn, groundnuts, yams and cassava.

Animal Research Institute

The Animal Research Institute, which is at Achimota, has its origins in the Biological Research Institute of the University of Ghana which was founded in 1957 and was concerned primarily with animal trypanosomiasis and helminthiasis. Established in 1964, the Animal Research Institute has a much broader field of interest than its predecessors. Its functions cover both husbandry and veterinary aspects of improving the livestock industry. It is concerned with pasture improvement and management, animal production and nutrition and research into animal diseases and disease vectors.

Food Research Institute

The Food Research Institute in Accra was set up in October 1963 to assist in the development of Ghana's food processing industry. It has been developed with the help over a five-year period of the U.N. Special Fund. In addition to sections concerned with food laws and standards, analysis, microbiology, preservation, processing and storage, there is a Food Economic Section. This section undertakes surveys of the food industry to determine the most appropriate location, size and organisation of processing factories. It also makes surveys of consumer demand in regard to acceptability, degree of processing, etc. The Institute has worked on methods for reduction of post-harvest losses in grains and legumes at both farm and industrial levels.

The Universities

In addition to research carried out by the C.S.I.R. institutes, the universities, of course, also carry out research. The University of Ghana, Legon, has research stations at Kade, Nungua and Kpong which were taken over from the Ministry of Agriculture, and a university farm on the campus. At Nungua a commercial farm has been established to act as a demonstration and to examine the management problems involved in running a large-scale commercial farm. Kade is the research station for the forest zone, whilst Nungua serves the Savannah. Livestock experiments tend to be concentrated at Nungua, although there are some animals at Kpong. The latter is the centre for irrigation research and also for mechanisation for both irrigated and dry land farming. Principal crops on which research is being conducted at Kpong are rice, sugar and cotton under both irrigated and rain-fed conditions. F.A.O. is conducting farm management studies at Kpong and has peasant farmers growing 3 acres each. Input and output data are being collected, but there is some doubt about the typicality of these farmers, who seem to be growing a very wide variety of different crops.

At Kumasi there is only one station, the university farm on the campus, although one or two projects are being conducted elsewhere. A feature of the work at Kumasi is an attempt to establish contact with farmers through field days and agricultural workshops.

At Cape Coast there is a Social Studies Project run by the Dutch which is concerned with aspects of rural development.

The Co-ordination of Research

Apart from odd field trials and some experimental work on its livestock farms the Ministry of Agriculture now has no research facilities of its own.

This means not only that it has no direct control over research, but that the link between research and extension, which in most countries is rather weak, is in Ghana even more attenuated. In order that agricultural research should serve the best interests of the country, it is essential, therefore that there should be some form of co-ordination. The Council for Scientific and Industrial Research is, in fact, charged with co-ordinating research. It has a co-ordinating committee for agricultural research of which the Ministry's research co-ordinator - from the staff of the Development Co-ordination Unit - is a member. In broad terms the type of work done by the research institutes seems to have accorded with the priorities set by the Ministry. Frustration from the Ministry's point of view will presumably come in the delay involved in starting urgent projects rather than through a neglect of high-priority research.

The chain of communication between the research scientist on the research station and the farmer in the field thus works out approximately as follows:-

Farmer
/ Agricultural Assistant
/ District Crop Production Officer
/ Regional Crop Production Officer
/ Chief Crop Production Officer
/ Research Co-ordinator
/ Agricultural Research Co-ordinating Committee
/ Chief Research Scientist
/ Research Scientist

The length of this chain is a serious weakness in the present structure of agricultural research and extension in Ghana. The virtually total separation of research and extension creates a further weakness. At one time agronomic research was done by field staff in the regions. No doubt the work was often not done as well as it might have been or there was duplication of effort, but the result was that local knowledge was gained of the behaviour of various crops in particular localities. With the present arrangements there seems less chance that local trials will be performed and more of a possibility that recommendations will not be fully adapted to local conditions. In the

Volta Region trials are, of course, conducted at Ohawu,¹ but it would be unreasonable to expect conditions there to be entirely typical of the whole area.

1. The programme of research in progress at Ohawu is:-

1. Coconut resistance trial
2. Tobacco variety and fertiliser trials
3. Oil palm spacing and variety trials
4. Rotational trial with grass ley, maize and groundnut, tobacco and cowpeas, sweet potato and cassava.
5. Maize variety trials involving 20 different varieties, including GS1, GS2, GS3, Mexican 17, and Diacol 153.
6. Maize seed dressing using Argosan, Mergamma A, Captan, Dieldrex and Fernasan D fungicides.

CHAPTER 3.

MARKETING AND MARKETS

3.1. THE MARKETING SYSTEM

(a) Food Marketing

Something like one-eighth of Ghana's labour-force are traders; most of these are women and the majority are self-employed. In addition, there are numerous people with other occupations, e.g. farmers' wives, who will engage in trade from time to time. The marketing system is very labour-intensive and, on the face of it, is extremely wasteful of resources. However, traders are, in general, uniquely skilled in this particular occupation, and do not have the education or opportunity to be more gainfully employed elsewhere. Trade is well-adapted to the Ghanaian economy, since it economises on capital and educated managerial ability, both of which are particularly scarce. A trader may operate at any or a number of positions in the long chain from producer to consumer. There are often as many as 6-7 intermediaries. In general, conditions are more competitive and margins lower the further one progresses along the chain towards the consumer. The farmer will take his surpluses to the nearest large market on market day, or he will sell to a farmer-trader who collects from his neighbours. Sometimes, particularly when there is a shortage, traders will come to the farm seeking out produce, even buying it whilst it is still standing in the field. Some traders will specialise in a single foodstuff, acting either independently or as agent of a wholesaler in a big town market. Others are itinerant and will travel from one market to another with loads of different produce. Mrs. Lawson¹ remarks that these traders watch the market carefully, and provide a valuable function in stabilising prices and evening out local shortages. Some believe however, that the small-scale middlemen are inefficient, because of their imperfect knowledge of distant markets and because, not owning their own transport, they are not always able to respond speedily to the opportunities which present themselves. Also the large number of intermediaries adds to the cost. Studies² of price differentials between various markets lends support to this, but whether the inefficiency is inherent in the system is a question

-
1. Lawson, R.M. "The Distributive System in Ghana: A Review Article". Journal of Development Studies Vol.3. No.2. Jan. 1967 p.198.
 2. Birmingham, Neustadt, Omaboe - op cit Vol.I; Also Ferdinand Stoces - "Agricultural Production in Ghana 1955-65" The Economic Bulletin of Ghana Vol X, No.3 1966, and Blair Rourke - "Wholesale Prices of Starchy Foods in Major Urban Centres of Ghana", Department of Agricultural Economics, Legon, 1969 (mimeo).

which requires examining further.

Very few markets - usually only the largest - are open every day. In Sogakope District each market is held on a fixed day or pair of days in the week. Thus, Adidome, Aveyime and Battor are held on Tuesdays and Fridays, Sogakope on Wednesdays and Saturdays and Mafi-Kumasi on Mondays. In Ho and Denu Districts markets rotate more frequently than once a week. In Denu, for instance, Keta, Anloga and Atiavi markets are held on the same day. Denu, Akatsi and Abor follow the next day. Aflao, Dzodze and Anyako come next, and Tadzewu, Wute and Agbozume complete the cycle. Some markets, e.g. Wudoba and Ehie in Denu District, are held only at night. The principal commodities sold in the markets are maize, roots, groundnuts, cowpeas, vegetables and fish, although there are special markets, e.g. Tadzewu, for livestock. Cattle will normally be bought by itinerant traders who rely on being able to persuade a farmer to part with an animal. (The only outlet for meat at the moment in southern Ghana is through the butchers. In the north there is the meat factory at Bolgatanga, but it is operating at very much less than capacity.)

From time to time the Government has expressed its dissatisfaction with the existing food marketing system, particularly during periods of rising prices, and has tried to improve the situation by action in the public sector. The statutory body charged with food marketing is the Ghana Food Marketing Corporation (G.F.M.C.). It has existed for a decade under various names and forms of organisation, and in the words of its Managing Director has been a "problem child". Prior to May, 1963, it was one of four Divisions of the Ghana Agricultural Produce Marketing Board, the others being concerned with cocoa, timber, and other exportable produce. After this it became the Food Marketing Board and then in December, 1965, the Ghana Food Marketing Corporation was set up. The intention in creating the Division was to provide an assured market and guaranteed prices for foodstuffs, starting with maize, rice and groundnuts and going on to meat, eggs, vegetables and fruit, and lastly to yams, cocoyams and plantains. The policy at present is to limit activities to a few products which are easily storable.

The most recent development in an attempt to improve the flow of foodstuffs, particularly to the towns, was the announcement in April 1970 of the setting up of a National Task Force. Its central role would be to provide transport, revolving capital and storage, to register buyers and retailers and to stabilise prices. Transport was mobilised from various Government agencies, Mammy traders have been registered, being limited to dealing, at fixed prices and in only two items of foodstuffs each, so as to encourage specialisation and efficiency.

First reports of the effectiveness of this policy were not encouraging.

(b) Marketing of Industrial and Export Crops

The marketing of industrial and export crops is much more heavily institutionalised than the marketing of food crops. The State Cocoa Marketing Board is responsible not only for making the most favourable arrangements for purchasing, grading, exporting and selling Ghana cocoa, but also coffee, palm kernels, palm kernel oil, palm oil, copra, coconut oil, sheanuts, shea butter, kola nuts and bananas. The Board is also given the responsibility, in consultation with the Government, for controlling and fixing the prices of these products. It buys through its own purchasing departments or licensed buying agents, such as the Ghana Co-operative Marketing Association which deals mainly in cocoa, coffee and sheanuts, and fixes the minimum price to the producer at each buying point. Cocoa is sold in the world market by a subsidiary of the Board, the Cocoa Marketing Company (Ghana) Limited.

A small export trade has also grown up in certain food crops, including yams, cocoyams and plantains, to the United Kingdom. The trade is in the hands of private export firms, and tends to be better organised than the domestic market. A peculiarity of the system, however, is that there are fixed f.o.b. prices, determined by the Food Marketing Corporation which is also responsible for allocating export quotas to the shippers.

3.2. STORAGE, TRANSPORTATION AND PROCESSING

A weakness of the traditional marketing system, it is argued, is lack of capital; mammy traders can neither afford to invest in storage facilities nor afford to tie up their capital in produce stores for any length of time. They must rely on selling a commodity almost as soon as they have bought it. On the other hand, allegations that traders are hoarding are never slow to come when prices are high. However, indices¹ of seasonal variations in prices of certain storable foodstuffs suggest that storage is inadequate. The June price of maize in the Accra market is usually almost double the September price. On-farm storage would, of course, provide a satisfactory complement to the mammy distributive system, provided that transport were adequate. Farmers are used to storing for their own use and are frequently prepared to hold produce back in the expectation of higher prices. But traditional storage methods leave much to be desired, and the extension service is giving quite a lot of attention, to spreading improved methods of on-farm storage. According to the Crops Research

1. Blair Rourke - "Wholesale Prices of Starchy Foods in Major Urban Centres of Ghana", p.13.

Institute, post-harvest losses of grain crops account for some 20% of the crop each year. The period of highest prices does of course coincide with the most difficult period for transportation when many feeder roads are impassable due to the rains.

A further inadequacy of the traditional marketing system is also related to its low rate of capitalisation. Mammy-traders often do not own their own vehicles and have to rely on hiring transport. Even if market intelligence were good enough to cause them to wish to transfer produce from market 'A' to market 'B' when there is sufficient price differential between them, it would be merely accidental if there were trucks available in sufficient numbers at the right place and time. The inadequacies of Ghana's transport system have been the subject of considerable comment in recent years. Stoces¹ has shown that between 1956 and 1965, not only was there a decline in the number of goods vehicles per head of the population on the road, but the age of the vehicle fleet was constantly increasing. The Government has now recognised this and is trying to increase the rate of importation of new vehicles.

In addition to this, since the heavy rains of a couple of years ago, the state of the roads has deteriorated. All this, of course, affects the cost and reliability of transportation. The Feeder Road Study (1968) made an analysis of transportation charges for food commodities and came up with a rough scale of charges as follows:-

TABLE 9

COSTS OF TRANSPORTATION OF FOOD COMMODITIES

| <u>Road Type</u> | <u>Freight Charge per ton mile</u> |
|---|------------------------------------|
| Paved road | N¢ 0.10 |
| Unimproved road/good condition | 0.20 |
| Unimproved road/considerably pot-holed | 0.30 |
| Earth roads on good alignment, but with pot-holes and considerable erosion, very rough | 0.50 |
| Track with smooth surfaces but water-filled in low areas. Passage considerably affected by weather, slow rate of travel at any time | 0.60 |
| Earth road with large amount of erosion, but still passable to trucks and high clearance vehicles | 0.70 |
| Track - basically impassable due to heavy erosion | 1.70 |

Source : Feeder Road Study, Buildings and Road Research Institute, Kumasi, 1968.

1. Ferdinand Stoces - "Agricultural Production in Ghana 1955-65" The Economic Bulletin of Ghana, Vol.X, No.3, 1966.

The table is no more than a rough guide to charges. Bargains are individually struck and will depend on the supply and demand situation as well as other factors. There are also different rates for different commodities, as shown in Table 10.

TABLE 10

TRANSPORT CHARGES ON FOODSTUFFS - JULY 1965

| <u>Commodity</u> | <u>Transport Charge per mile</u> |
|--|--------------------------------------|
| Beans, cowpeas, garden eggs, okro, tomatoes | 2/-d |
| Garri, kokonte | 2/3d |
| Maize, rice, millet, guinea corn, plam nuts (fruits), bananas, oranges, pineapples | 2/6d |
| Pepper, groundnuts, onions, shallots, | 3/-d |
| Plantains, fresh fish, smoked fish, etc. | 3/6d |
| Yams | 4/-d |
| Cassava, salt, coconut oil, palm kernel oil | 5/-d |

NB - 1. On average a truck loaded with food commodities can do 30 miles an hour.

2. Above charges relate to lorries of 3-5 tons.

Source - Rowena M. Lawson - "Transport Charges on Local Foodstuffs" - The Economic Bulletin of Ghana, Vol.X, No.2, 1966.

The cost of transportation in any particular area will also depend on the local availability of vehicles. The general opinion of the agricultural staff in southern Volta appears to be that, inter-urban services are good, but that there is a scarcity of lorries in the villages, their movement being related to the rotation of market days. As an indication of the scarcity of transport in the villages, the District Officer has given the following fares for journeys around Abor. They refer to the dry season only and would be approximately double in the wet season.

TABLE 11

FARES BETWEEN ABOR AND SURROUNDING VILLAGES

| <u>Journey</u> | <u>Distance (miles)</u> | <u>Fare (np per person)</u> |
|-----------------|-----------------------------|---------------------------------|
| Abor to Tadzewu | 9 | 15 |
| " " Afife | 4 | 10 |
| " " Atiavi | 11 | 30 |
| " " Akatsi | 7 | 10 |
| " " Anyako | 5 | 10 |

Source: V.K. Atsu-Ahedor - "Agricultural Development in Denu District, Ghana, 1956-1968".

For farmers looking for an assured market for their produce, processing plants would appear to offer a reliable outlet; there are quite a range of factories in Ghana, processing a variety of different crops. The majority of them, although not all, are run by parastatal bodies, now mostly part of the Ghana Industrial Holding Corporation (GIHOC). Unfortunately, in the past these factories have been far from reliable as outlets for farmers' produce. Farmers have been persuaded by the processors, on the assurance of a particular price, to grow crops in order to feed the factories, and then have been let down, because there was no money to buy their produce, or else the plant was closed down. In southern Volta, for instance, farmers were persuaded to grow groundnuts and then found they had to sell them to market mummies for what they could get.

The oil mill at Denu is owned by the Vegetable Oil Mill Division of GIHOC. It was built originally for processing copra, but was closed down after supplies of the raw material dwindled owing to the decline of the coconut industry as a result of Cape St. Paul wilt. The mill is a multi-purpose one, being capable of processing groundnuts and palm kernels, as well as copra. It was planned to re-open the mill in January 1970, and to begin by processing palm kernels. The Vegetable Oil Mill Division is on a much sounder financial footing now; in the north, at least, it has demonstrated its ability to pay for produce and has been getting in groundnuts as never before. In southern Volta, however, farmers may be a little more cautious, having once burnt their fingers. The crop is bought by middlemen who resell to the mill.

Sugar cane is another crop for which processing facilities are close by - at Asutsuare. The original plan was based purely on estate production, but the policy is now to stimulate sugar cultivation by outgrowers. Once again, however, there have been difficulties in buying the crop and farmers have been dissatisfied. There is also the traditional processing of sugar cane into akpateshie. This is one of the most successful of rural industries.

Cotton is sold to the Cotton Development Board, which is not simply a processor, but interested in all aspects of the development of the crop. Cotton is a new crop in southern Volta and one for which the traditional marketing system will have no experience. Farmers who grow cotton will thus be dependent on making direct contact with the Board. Until such time as the Board has its own officers in the area, farmers will presumably have to rely on the Crop Production Officers for arranging to get the cotton to the ginnery.

Tobacco is dealt with similarly, but in this case processing takes place,

in general, before the farmer sells his tobacco to the Ghana Tobacco Company. In southern Volta processing tends to be minimal, because most of the crop is air-cured. There appears to be no reason why farmers could not with encouragement fire-cure their tobacco and receive a much higher price for it. At both Akatsi and Ohawu large curing barns have been partially constructed and are now standing idle.

Fruit and vegetables have to travel quite a distance for processing - to Accra or the cannery at Nsawam. No doubt it is easier to market at the fresh produce market in Accra. For certain fruit and vegetables the processors find considerable difficulty in competing with the fresh food market; tomatoes have been a notable example.

3.3. STATE INTERVENTION IN FOOD MARKETING

In low-income countries it is common for Governments to play a considerable part in the marketing of export crops and to impose extensive controls on the marketing system. The merits and demerits have been argued at great length and will not be repeated here. The majority of crops covered by such arrangements in Ghana are of little relevance to southern Volta. Issues which are relevant are those concerned with the marketing of food crops. There are two of these of particular current interest - guaranteed minimum prices and price stabilisation.

As will be discussed in the next section, the prices of certain food commodities, maize in particular, are subject to violent fluctuations. As a result the notion of fixed or guaranteed prices is attractive to farmers and administrators alike. Economists are a little more cautious. A report on guaranteed prices for maize was made in 1966 by La-Anyane and Afful.¹ Their conclusion was that the violent fluctuations in maize prices required that the marketing system be improved to facilitate the stabilisation of prices. They recommended against guaranteed prices, i.e. fixed prices announced in advance of the season, and proposed instead that measures be taken to increase production through the use of fertiliser and improved seed, and that economic forces be made to operate more efficiently by improving storage and credit facilities and improving transportation.

Fixed prices have not been imposed, but a guaranteed minimum price has been introduced. A guaranteed minimum price (GMP) was set only for maize and rice, with the promise of extension to guinea corn and millet (when storage space became available). Until early 1969 the GMP for maize was N¢ 4.50 for a 220lb bag, and for rice was N¢ 6.20; they were fixed at N¢ 7.00 and N¢ 7.50,

1. S. La-Anyane and E.N. Afful - "A Report on Guaranteed Prices for Maize" (mimeo) September, 1966.

respectively during 1969/70 and were set at Nø 8.00 and Nø 6.00 for 1970/1. A glance at Table 13 in the next section will show that whereas on average a GMP for maize of Nø 4.50 would not have been effective in any month since the beginning of 1963, a GMP of Nø 7.00 would have required support for the market during 27 months.¹ In order to make a guaranteed minimum price effective, there must, of course, be a body with sufficient funds at its command to take the surplus off the market when prices are low. The Ghana Food Marketing Corporation has been given this responsibility. If the traditional food marketing system is inefficient, however, it is not enough to support prices in what might be thought of as strategic markets, since there will not be an adequate mechanism for translating the GMP to remoter areas. The introduction of GMP logically requires a serious effort to improve the marketing system either by extending the Food Marketing Corporation's network of buying points or in the ways proposed by La-Anyane and Afful.

Price stabilisation is more ambitious than this, requiring greater expertise and more financial backing. The proposal is to operate a buffer stock, buying maize in glut periods and selling when there is a shortage. An international expert on price stabilisation has been attached to the Food Marketing Corporation to help work out the details. Food aid maize from both the United States and the World Food Programme has been made available in order to build up a stock. This is yellow maize and has usually to be sold for animal feed, but the funds generated can be used for the purchase of local white maize. As yet, however, the quantities of food aid imported have been small compared to the total of local production and the Corporation will require more finance than can be provided by this source if it is to intervene on a large scale. A sine qua non of an effective price stabilisation policy is, of course, adequate storage.

The National Task Force is the most far-reaching intervention so far, but it is not clear that marketing efficiency can be raised by only a combination of control and requisition.

3.4. PRICE TRENDS FOR SELECTED COMMODITIES

The most striking feature of recent trends in the prices of local food-stuffs is the remarkable inflation in prices in the period 1963/1965 which is illustrated in Table 12.

1. Of course, if there had been price support, the pattern of prices throughout the year would have been altered.

TABLE 12

ANNUAL AVERAGES RETAIL PRICE INDEX NUMBERS

FOR ACCRA, 1963 - 68.

June 1954 = 100

| <u>Group</u> | <u>Weights</u> | <u>1963</u> | <u>1964</u> | <u>1965</u> | <u>1966</u> | <u>1967</u> | <u>1968</u> | <u>1969</u> |
|------------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Local Food | 400 | 139 | 163 | 226 | 235 | 194 | 220 | 253 |
| Imported Food | 88 | 126 | 142 | 161 | 169 | 174 | 193 | 191 |
| Clothing | 121 | 131 | 140 | 175 | 180 | 188 | 219 | 228 |
| Drink & Tobacco | 61 | 191 | 211 | 224 | 253 | 253 | 267 | 276 |
| Rent | 54 | 133 | 133 | 144 | 148 | 147 | 146 | 146 |
| Fuel & Light | 50 | 102 | 118 | 138 | 147 | 141 | 144 | 147 |
| Services) | | | | | | | | |
| Household Goods) | 134 | 125 | 138 | 167 | 181 | 200 | 213 | 220 |
| Miscellaneous) | | | | | | | | |
| All items | 908 | 136 | 153 | 196 | 205 | 190 | 209 | 228 |

Source : Economic Surveys 1967-1969

Thus between 1963 and 1965 the index of local food prices rose by 66%, whilst the index of all other items rose by 27%. After 1965 the rise in local food prices was contained and in 1967 even reversed. In 1968 and 1969 however, it once again showed a marked upward movement.

There have been a number of explanations given for the inflation in prices of foodstuffs.¹ Some have stressed the supply side, arguing that the agricultural labour force was rising slowly and productivity per man not at all, that there has been increasing competition for the available land from non-food crops, and that there has been a decline in the inter-planting of food crops with new cocoa, as cocoa plantings have fallen off. Others on the demand side have stressed the increase in the money supply and control of imports. Most have pointed to deficiencies in the distributive system. Trends since 1965 would appear to favour the demand side theorists, with the arrest of price rises being mainly associated with the Government's deflationary policies and an increase in imports, although an improvement in the weather no doubt contributed. The very bad weather conditions in the second half of 1968 have undoubtedly made a major contribution to price rises in 1969.

1. F. Stoces - "Agricultural Production in Ghana 1955-65" Economic Bulletin of Ghana, Vol.X, No.3, 1966

Rowena M. Lawson - "Inflation in the Consumer Market in Ghana" Economic Bulletin of Ghana, Vol.X, No.1, 1966.

Blair Rourke - "Wholesale Prices of Starchy Foods in the Major Urban Centres of Ghana" Department of Agricultural Economics, Legon, 1969 (mimeo)

TABLE 13

MONTHLY AVERAGE PRICE OF LOCAL MAIZE 1963-1969 (N¢ per day)

| Year | Jan. | Feb. | March | April | May | June | July | August | Sept. | October | Nov. | Dec. |
|------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------|-----------------|------------------|------------------|------------------|
| 1963 | 6.40 (7.00) | 6.80 (6.00) | 6.60 (6.50) | 7.20 (9.00) | 7.00 (7.50) | 6.90 (7.50) | 6.80 (7.00) | 5.20 (5.00) | 5.60 (6.40) | 6.40 (7.00) | 6.80 (6.50) | 6.70 (7.00) |
| 1964 | 7.30 | 7.90 | 6.60 | 10.60 | 11.10 | 11.40 | 7.40 | 6.30 | 6.00 | 7.10 | 8.80 | - |
| 1965 | 9.42 | 9.41 | 9.71 | 11.92 | 13.92 | 12.99 (14.20) | 12.21 (12.90) | 9.10 (9.13) | 9.29 (10.20) | 10.44 (10.81) | 10.46 (11.50) | 10.59 (12.00) |
| 1966 | 12.57 (14.40) | 12.76 (14.50) | 13.15 (15.83) | 12.95 (16.27) | 13.83 (20.33) | 19.27 - | 10.34 (16.60) | 6.68 (7.00) | 6.24 (6.65) | 6.98 - | 7.08 (6.80) | 7.08 (6.70) |
| 1967 | 7.03 (8.30) | 6.52 (7.54) | 6.42 | 6.47 | 6.50 | 6.19 | 6.27 (6.87) | 5.39 | 4.54 | 5.09 (4.90) | 6.12 (5.53) | 6.44 (6.42) |
| 1968 | 7.11 | 7.46 | 7.85 | 9.96 | 12.53 | 11.75 | 11.20 | 8.39 | 7.83 | 10.37 | 11.93 | 11.36 |
| 1969 | 10.96 (13.90) | 14.36 (14.19) | 14.36 (18.12) | 17.92 (19.25) | 22.14 (24.60) | 23.34 (26.18) | 19.37 (15.64) | 9.28 (9.70) | 8.83 (9.25) | 11.34 (12.38) | - | - |

Figures in brackets are average wholesale prices in Ho market.

Source: Ghana Food Marketing Corporation; Economics and Marketing Division, Ministry of Agriculture.

Possible price prospects are considered below for selected commodities but it should be remembered that there is virtually no production data on which to base these projections.

Maize

Maize is one of Ghana's most important crops. It is grown for food and also as a cash crop. In addition to the part it plays in the diets of a large proportion of the population, particularly in the South, there is an increasing demand for it for animal food, especially for poultry. Average monthly prices over the past seven years as recorded at local markets are shown in Table 13 with data for Ho market, where available.

Maize is subject to more violent seasonal price fluctuations than any major food crop in Ghana, other than plantain. Normally prices are at their lowest in August or September; they rise to a minor peak in January or February, reaching their yearly peak in May or June and then fall again very sharply. Prices in the Ho market seem to follow national prices reasonably closely although there are anomalies, such as the much higher prices prevailing in Ho market in the first half of 1966. Supplies of maize and prices are compared in Table 14.

Demand for maize is likely to remain buoyant. The Indicative World Plan (IWP) proposes an elasticity of 0.5. There is a tendency to switch from root crops to maize and other cereals as incomes rise. Demand for maize for all purposes, including feed and seed, of 260,000 metric tons in 1975 and 382,000 metric tons in 1985 is projected, implying an import requirement in 1985 of 22,000 metric tons. In view of the fragility of the statistical basis, it is impossible to comment on this.

It is generally agreed that the large increase in acreage and consequent increase in production in 1966 was a direct result of the high prices prevailing in the previous year. The subsequent decline in acreage planted can be related to disappointment at the lower prices which resulted in 1966/67. The Government is determined to increase maize production as rapidly as possible. It seems unlikely, however, that they will be able to introduce cost-reducing innovations on a wide enough scale over the next few years to alter this pattern of responses significantly.

In spite of the Government's intention to introduce a price stabilisation policy, it is reasonable to assume that prices will continue to fluctuate considerably - although possibly less than before - both between seasons and

within seasons. Farmers who are prepared to store their maize until May or June will almost invariably get a higher price for it than in August or September. However, since storage is a business activity which is only incidentally connected with production, for planning purposes, it is the post-harvest price which is of interest. The post-harvest price fluctuates less from year to year than the price at, say, the end of the season. Prices in Ho tend to be rather higher than those in the table, hence I suggest a range of N¢ 7-9 per 220lb bag for planning purposes.

TABLE 14

SUPPLIES AND PRICES FOR MAIZE 1963-69

| <u>Year</u> | <u>Acreage Production</u> | | <u>Imports</u> <u>thous.tons</u> | <u>Production</u> <u>plus Imports</u> <u>thous. tons</u> | <u>Average</u> <u>prices</u> <u>July-June</u> <u>N¢</u> |
|-------------|---------------------------|-------------------|-------------------------------------|--|--|
| | <u>thous.acres</u> | <u>thous.tons</u> | | | |
| 1963 | 500 | 180 | 0.7 | 181 | 7.70 |
| 1964 | 500 | 170 | 3.4 | 173 | 9.34 |
| 1965 | 428 | 206 | 1.3 | 207 | 12.22 |
| 1966 | 620 (785) | 353 (396) | 5.2 | 358 (401) | 6.96 |
| 1967 | 570 (728) | 278 (338) | 6.2 | 284 (344) | 7.54 |
| 1968 | 517 (671) | 253 (296) | 2.5 | 256 (299) | 13.68 |

Figures in brackets are recent revisions made by the Economics and Statistics Division

Source: Economic Survey 1968
Quarterly Digest of Statistics
Report on Current Agricultural Statistics 1968
Table 13

Cotton

As far as Ghanaian farmers are concerned there is a virtually unlimited market for cotton. Ghana's cotton textile industry is expanding rapidly, whereas production of cotton is as yet negligible. There are state-owned and private factories at Tema, Akosombo and Juapong. Present requirements are approximately 5,000 tons of raw cotton a year, worth some N¢ 2-3m. on foreign currency. In the past however, imports have been provided under PL480 and paid for in local currency. It is estimated that in full production the factories will use some 45,000 bales of cotton. At 480lb a bale this comes to 21.6m. lbs of ginned cotton or approximately 70m. lbs of seed cotton.

The Cotton Development Board is the sole agency for buying cotton and since it controls the ginneries there is no possibility of by-passing it. It has fixed a price of 7np a lb of seed cotton and it seems unlikely that this price

will be changed during the next few years, because the Board wishes to give farmers a high price in order to promote a rapid expansion of the industry. The price quoted is a net figure and takes into account the free distribution of seed, fertiliser and insecticide. However, distribution of inputs is only made to those farmers who are part of the Board's scheme for block production.

Individual farmers will not be provided with inputs, but will still only receive 7np per lb.

Compared with neighbouring countries 7np per lb net is a high figure; do Nigeria only pays 6d per lb (excluding inputs) and Upper Volta 5 1/2np per lb. The maintenance of such a differential can only encourage smuggling. The Board is conscious of this and realises that when the industry is on its feet it will have to bring the price down. Trends in the world market price are only relevant insofar as they affect the pressure which the textile manufacturers put on the Government for reduction in the price they have to pay for their raw material. For planning purposes, the following prices per lb seed cotton are suggested:-

| | |
|---------|---------|
| 1970-72 | 7np net |
| 1972-76 | 6np " |
| 1976- | 5np " |

Tobacco

Tobacco is in a similar situation to cotton, but is a more established crop. Local production in 1968 was 2.5m lbs, of which approximately 50% was air-cured, 40% flue-cured and 10% fire-cured. A target of 3m. lbs had been set, but this had to be revised because of the heavy rains. Imports of unmanufactured tobacco which in the early 1960's were running at approximately 2m. lbs annually had increased to some 5m. lbs at a value of N/ 3m. in the late 60's. Part of this was imported through PL480.

Until recently the Pioneer Tobacco Company had a virtual monopoly of the manufacture of tobacco products, but there is at least one other firm (in Tema) which is expanding production and which by 1975 expects to be using 2m. lbs of fire-cured tobacco annually for the manufacture of black strap. The Pioneer Tobacco Company also anticipates an expanding market.

The Ghana Tobacco Company is responsible for promotion of the tobacco growing industry. It plans for a rapid expansion of the industry to replace imports and after about 1974 or 1975 hopes to develop an export market. Prices for leaf are fixed by the Government on the advice of GTC and are normally

1. The IWP postulates an annual growth rate of 8.8% for 1962-75, but only 2.9% for 1975-1985.

announced in December for the following year. Prices are fixed according to grade and there is a high premium for quality. Prices for different grades for 1967/68 are shown in the following table (in Nø per lb.) :-

TABLE 15

PRODUCER TOBACCO PRICES 1967/68

| <u>Flue-cured</u> | <u>Air-cured</u> | <u>Fire-cured</u> |
|-------------------|------------------|-------------------|
| Nø | Nø | Nø |
| 0.53 | | 0.53 |
| 0.43 | | 0.48 |
| 0.32 | 0.25 | 0.42 |
| 0.20 | 0.20 | 0.30 |
| 0.15 | 0.07 | 0.17 |
| 0.07 | | 0.12 |

Source: Report of Ghana Tobacco Corporation 1968

For 1969 the scale has been simplified and has more price points. For flue-cured tobacco it runs from 10np to 55np by steps of 5np. Average prices obtained in 1967/68 were 35-36np per lb for flue-cured and 40np per lb for fire-cured. Locally produced tobacco is protected by a heavy duty on imports of Nø 1.57 $\frac{1}{2}$ per lb. Thus even with the 20np per lb that the GTC adds to the producer price when it sells to the manufacturer, the latter finds local tobacco much cheaper than imported. However, if Ghana is to develop an export trade, then prices will have to come down to world levels; GTC will have to reduce its overheads and the producer price will have to be reduced. In 1968 Indian leaf could be landed at Takoradi at 25 np per lb.

If Ghana manages to develop an export market, it will probably be in flue-cured tobacco rather than the other types for which world demand is fairly static. Flue-cured tobacco also earns a premium over fire-cured on world markets which is not at present reflected in the Ghanaian price structure. No doubt the first place to seek a market is the United Kingdom where Commonwealth producers enjoy a preference of 1/6 $\frac{1}{2}$ d per lb over others. The variety of different gradings and qualities makes general statements about prices hazardous.

Ghana should have the benefit of lower transportation costs to Europe than other African competitors. This suggests that Ghana would have to aim at prices

of about 40np per lb for flue-cured and 25np per lb for fire-cured, including GTC's costs. It seems however, very likely that in the first few years of developing an export market the Government would be prepared to organise the price structure so that exports, in fact, get a subsidy. It also seems likely that the world price differential between flue- and fire-cured tobacco will continue not to be fully reflected in Ghanaian prices. For planning purposes the following prices to the producer are probably not unreasonable, assuming some improvement in the quality of flue-cured tobacco:-

| | air-cured np/lb | flue-cured np/lb | fire-cured np/lb |
|---------|--------------------|---------------------|---------------------|
| 1970/74 | 20 | 35 | 35 |
| 1974/78 | 20 | 35 | 30 |
| 1979 - | 15 | 35 | 20 |

Groundnuts

Production data for groundnuts for recent years are given in table 16.

TABLE 16

ACREAGE AND PRODUCTION OF GROUNDNUTS 1963/68

| <u>Year</u> | <u>Acres ('000s)</u> | <u>Production ('000T.)</u> |
|-------------|----------------------|----------------------------|
| 1963 | 156 | - |
| 1964 | 159 | - |
| 1965 | 76 | - |
| 1966 | 80 (101) | 20 (23) |
| 1967 | 95 (115) | 20 (24) |
| 1968 | - (150) | - (37) |

(N.B. - indicates data not available. Figures in brackets are recent revisions made by the Economics and Statistics Division.)

Source: Economic Survey 1968
Report on Current Agricultural Statistics 1968

The data available for groundnuts are extremely scanty.

The Vegetable Oil Mills Division of GIHOC anticipates that demand for edible oil will increase at 5% a year as follows (in tons):-

| | <u>Total Market</u> | <u>Refined</u> | | <u>Crude</u> | <u>Industrial</u> |
|------|---------------------|----------------|----------------|--------------|-------------------|
| | | <u>VOMD</u> | <u>Private</u> | | |
| 1970 | 34,500 | 1,300 | 200 | 30,000 | 3,000 |
| 1974 | 42,500 | 10,000 | 2,000 | 27,500 | 3,000 |

The oil comes from a variety of sources: palm fruit, palm kernels, copra and groundnuts. Copra is declining as a result of Cape St. Paul wilt, but oil

palm production is expected to increase rapidly, particularly to service the Pretsea Oil Mill.

If there is a firm demand from the oil mill, the result should be to stabilise prices. N~~o~~14-16 per bag of 160 lb of shelled groundnuts is the price range forecast, representing a continuation of recent price levels.

CHAPTER 4.

BACKGROUND TO DEVELOPMENT IN SOUTH EAST GHANA

4.1. PHYSICAL AND SOCIAL INFRASTRUCTURE¹

a. Location and physical features

The three southern Districts of the Volta Region form a triangle broadly defined by the course of the Volta River on the north west side, the Tofo border on the north east side, and the line of the last reach of the Volta and the coast on the south side (See Map).

For the most part it is an area of rolling plains drained southward by a number of small streams with highly seasonal flow. This pattern is only broken in the north by two lines of low hills and a prominent isolated hill (Adaklu) south of Ho.

The chief climatic variable is rainfall; at a latitude of only 6 - 7°N, average daily mean temperatures vary little with the seasons (77.3° - 83.5°F at Ho). Rainfall, occurring in two rainy seasons between March - June and August-October, varies markedly within the area; mean annual rainfall rises from 30" on the coast to 65" in the north of Ho District. Moreover there is marked variation in the reliability of the rains, from more than 20% relative variability on the coast to less than 10% east of Ho².

Soils are the product of underlying geology and climate, and no doubt influenced to some extent by land use. They fall into zones running broadly north east - south west through the region. These zones include groundwater laterites (medium pallid sands³), tropical black and grey earths, groundwater laterites, savannah ochrosols (red earths) and sodium vleisols (heavy plastic clays) in succession from northwest to the lagoons of the southeast.

¹ This section is heavily dependent on "Volta Region": Existing Socio-Economic Situation, Regional Planning Studies, Ministry of Social and Rural Development 1969 (mimeo).

² Relative variability "is the total of all individual yearly differences from the average value, irrespective of sign, expressed as a percentage of the average value (see H.O. Walker, Ghana Met. Dept. Note No. 5, Accra 1957, p.7)

³ Names in parenthesis are those used in the Ho-Keta Plains Soils Survey; Discussion of Soil and Land Use Survey, Paper No. 5, Kumasi 1958 (Unpublished).

The groundwater laterites are commonly porous sands over clay of poor natural fertility on which the effects of irregular rainfall are strongly felt. The tropical black earths are potentially fertile but heavy and difficult to work. The friable, loamy savannah ochrosols have provided the easiest conditions for small-scale agriculture carried on by hand methods and are associated with the densest population of the region, but cannot be regarded as soils of high fertility.

b. Transportation

Roads are the principal means of transport in Southern Volta Region. There is no railway. There are three trunk roads in the area; the Accra - Aflao road, the Accra-Ho road with its branch to Golokwati and the north, and the Ho-Denu road, which provide excellent communication from the area to the capital. Feeder roads have assisted to some extent in improving communication but tend to be impassable in wet weather.

The two main problems which road transport in Ghana faces - the poor state of maintenance of the roads and the poor state of maintenance of vehicles of all types - are linked. The poor state of the road contributes to the poor state of the vehicles, and is in turn partly due to the poor condition of the machinery for maintenance.¹

In 1968 the Road and Building Research Institute at Kumasi undertook a feeder road study. According to the Study: "The Volta Region is well served by PWD maintained roads - especially in the most important areas of agricultural production. The major road problem in the region is that the PWD gravel roads are not maintained to a very high level and the maintenance of the PWD roads should precede the development of feeder roads" It was proposed that in addition to the roads already maintained by the PWD and the regional organisation, feeder roads should be adopted for maintenance. The result would be to bring 80% of the population of the region within four miles of a maintained road.²

¹ For example, much less than half of the equipment carried by the PWD is usable. It is estimated that 3,000 Land Rovers owned by the Government are unserviceable. The probability of similar conditions in the private sector is also suggested. This problem is so pervasive that it has been proposed that a special machinery rehabilitation programme be carried out by a central agency expressly created for the purpose.

² Of course, the distance over which it will still be necessary to head-load produce and purchases, will for many villages be substantial, and time-consuming.

There is no sea-port in Volta Region. Until 1963 when it was closed down, Keta was the port for this corner of Ghana and handled some 9,000 tons of cargo annually. Canoe transport on the lagoons and creeks in the south is of some importance, particularly since the main direction of trade in this area is between the coast and the hinterland.

One of Ghana's hopes is that the Volta Lake will become a main artery of cheap transport between north and south. The Lake is, however, still full of trees and navigation has to follow the old course of the river. Navigation and port facilities are as yet undeveloped. In the long run, of course, one might expect the axis of communication to shift as regional development responds to the new opportunities, of which the Juapong textile factory is an example.

c. Communication

Volta Region is reasonably well supplied with postal facilities. There are 5,575 inhabitants per post office or postal agency compared with about 8,000 in the whole of Ghana. Services tend, however, to be rather slow.

Telephone services are available in the larger centres of population, but not in the smaller villages. Inter-urban connections are improving as STD is extended. Ho is now included. Almost 50% of Ghana's telephone installations are concentrated in Accra; Volta Region accounted for less than 4%. Expanding the telephone network requires a larger capital investment and there is considerable pressure on existing capacity. There were over 18,000 potential subscribers on the waiting list at the end of 1968 compared with a little over 38,000 actual telephones in use.

Ho has rediffusion, but elsewhere people rely on radio sets. It is said of Denu District that there are very few television sets, but that many people own radio sets.¹ This probably applies to the rest of southern Volta Region.

d. Electricity

In spite of the proximity of the Volta Dam, hydroelectric power has as yet had little effect on the area. There are three diesel stations in the

¹ L.A. Della-Braunes - Cropping Programme 1969, Denu Agricultural District

area for generating electric power with capacities as follows:-

| | |
|------|----------|
| Ho | 1,290 kw |
| Keta | 250 kw |
| Denu | 100 kw |

The number of consumers (i.e. customers rather than people supplied) was 2,368 at the end of 1968.

It is perhaps ironic that the main effect in S.E. Ghana of electrification development arising from the harnessing of the nearby Akasombo dam will, at least to begin with, be the cutting of a track to accompany the power line for the export of power to Togoland.

e. Water Supplies

Until very recently water supply policy in Ghana has been directed towards providing a high level of water supply per head in the main urban centres, particularly Accra-Tema. The smaller urban centres and rural areas have been relatively neglected. This policy is now being reversed and efforts will be made to provide a minimum supply to as large a number of the population as possible.

Statutory responsibility for the provision of water for domestic and industrial purposes rests with the Ghana Water and Sewerage Corporation, although other bodies such as local authorities and Community Development are involved. GWSC normally sells water to local authorities who in turn collect from the consumer in the form of the general water rate.

The provision of drinking water was one of the outstanding programmes of the 1970/1 Budget Statement. N $\text{\$}$ 4.61m was allocated to the GWSC and N $\text{\$}$ 0.41m for small scale development through other channels. At the same time the Min. of Agriculture's small dam programme was stepped up (though this is primarily intended for cattle drinking).

It is not easy to give a total picture of the water supply situation in southern Volta, but an estimated 51% of the population of the Region draw their water from registered sources and we can say something about these:-

| <u>Pipe-borne</u> | <u>% of population</u> |
|--|------------------------|
| Fully treated (Kpandu, Hohoe and Kpetoe waterworks) | 3.4 |
| Partially treated (Keta, Ho, Worawora and Tadzewu waterworks) | 6.9 |
| Untreated | 18.7 |
| <u>Others</u> | |
| Mainly boreholes (49 settlements) | 7.1 |
| Mainly streams (49 settlements) | 8.5 |
| Mainly wells (39 settlements) | 2.2 |
| Temporary sources(10 settlements) | 1.5 |
| <u>Contaminated sources</u> | |
| Carrying bilharzia & guinea worm (8 settlements) | 1.8 |
| Polluted (taste, smell, etc.) (7 settlements) | 0.3 |

In spite of current plans, water for human consumption, and in particular good quality water for drinking, will remain a sine qua non for rural development in S.E. Ghana for years to come.

f. Health

As with water supplies present policy with respect to health services is to spread them more evenly throughout the country. In fact, the spread of safer drinking water is seen as an important part of the campaign to reduce the incidence of some of the most important diseases, such as typhoid, dysentery, Bilharzia and dracontoniasis (guinea worm), the worst effects of which can probably be mitigated by a supply of five gallons a day.

In keeping with this policy of widening the base of the health service, policy is directed towards increasing the number of rural health posts rather than the number of hospitals. A similar policy is being pursued with regard to staff. In recent years the Qualified Registered Nurse course has been abandoned and the institutions which previously trained them have concentrated on turning out nursing auxiliaries. Also, greater attention is being given to preventive medicine, i.e. environmental sanitation, maternal and child care, food and nutrition education, the control of communicable diseases, and health education.

The regional hospital for Volta Region is at Ho, where there are more specialised services available than in the other hospitals in the region, provided by a staff of surgeons, physicians, obstetricians and paediatricians,

as well as general medical officers and other staff. In addition there are government (or quasi-government) hospitals at Ho, Blengo and Keta, and mission hospitals at Kpandu, Adidome, Dzodze and Battor. There is also a Leprosarium at Ho. In the next tier of the structure are rural health centres which are found in the small towns without hospitals and act as centres for health posts in the surrounding villages. Out of 40 rural health centres only four are to be found in Volta Region. The health post is run by a health post assistant with the help of a midwife and a community health nurse. If necessary, patients are referred to the health centre which may in turn refer them to the district hospital. Although not well supplied with health centres, Volta Region is rather better supplied with hospital beds than the rest of the country; there is a ratio of 1:61 hospitals beds per thousand population, compared with 1.21 for the country as a whole.

g. Education

Until recently schooling in Ghana has been organised in three main stages: primary lasting six years, middle lasting four years, and secondary taking five years to School Certificate. The majority of entrants to secondary schools would come from the second- and third-year forms in middle schools, whilst the less academic would continue in middle school and be given courses with a handicraft bias.

The structure is now being changed. Middle schools disappear and primary education will now last for eight years after which some children will be selected to go to secondary school. The rest will go to a "continuation school" for two years. The courses offered are of a vocational nature, including agriculture, shorthand and typing, simple book-keeping, elementary accountancy, housecraft, and handicraft. In time as more highly trained staff become available it is hoped to reduce the eight-year primary course to six years.

There has been a very rapid increase in the number of students enrolled in Ghana over the last decade. Comparative figures for 1961/62 and 1967/68 are shown in the following table:-

Table 17.

Student Enrolment in Ghana
in 1961/62 and 1967/68

| | <u>1961/62</u> | <u>1967/68</u> |
|-------------------|----------------|----------------|
| Primary | 641,771 | 1,072,523 |
| Middle | 184,292 | 329,679 |
| Secondary | 19,062 | 43,889 |
| Technical | 1,340 | 5,000 approx. |
| Teacher Education | 1,186 | 16,768 |
| University | 1,378 | 4,878 |

Source:- Two Year Development Plan 1968/70

Public expenditure on education, current and development, increased from 14.6% of total government expenditure in 1961/62 to 20.4% in 1967/68. Unfortunately, the expansion of education outstripped the supply of teachers and in 1967/68 over 60%¹ of teachers in primary and middle schools were untrained and had themselves completed only the middle school course. One of the Government's first priorities is to replace them as rapidly as possible by trained teachers; the most dramatic expansion of all shown in the table is the increase in teacher education.

In the whole of Volta Region in 1961/62 the number of pupils in primary and middle schools represented 40.3% of the population aged 6 - 14 in the 1960 Census. The corresponding figure for Ghana was 52.5%. Since that date, the primary and middle schools population in Volta Region has increased by 135%, whereas for Ghana as a whole it has increased by only 70%. Assuming an increase of something like 20% in the school-age population, the school attendance index in Volta Region very nearly doubled. The increase is, of course, still working its way through the school system. The number of pupils in secondary schools is considerably less than the number in primary and middle. Some 80% of the places in secondary schools in the region were taken by boys, approximately the same proportion as for the whole country.

Government policy as regards secondary education is to concentrate on increasing the size of existing schools, (to three-stream size), if possible by increasing the number of day pupils. Special attention is to be given to expanding sixth form work, particularly in science subjects. The secondary curriculum which has in the past been very much examination orientated (examinations taken are West African School Certificate and London 'O' and 'A' levels) will be diversified to include more practical subjects such as agriculture, commerce and domestic science.

Technical education is provided at a variety of different types of institution throughout the country. In future technical education provided at technical institutes and polytechnics will be related to in-service training organised by public enterprises and private firms.

The relatively full educational provision which Volta Region at present enjoys is of very recent origin. The majority of older people have had very little education. Literacy rates given by the District Crop Production

¹ This percentage is now falling.

Officers are 20% in Sogakope District, 40% in Denu and 60% in Ho. For the latter it is remarked that literacy is in Ewe and very few can read or write English.

4.2. POPULATION, LABOUR AND EMPLOYMENT¹

Fertility in Ghana is high even by African standards. Coupled with a death rate which tends to be somewhat lower than that in the rest of tropical Africa, the implication is of a high rate of natural increase, projected to become even greater during the 1970s. Projections by S.K. Gaisie on a basis only of fertility and mortality suggest an average rate of natural increase in the first half of the decade of nearly $3\frac{1}{4}\%$ with total population growth of more than $3\frac{1}{2}\%$ ². Since the projections were made the Government has taken a stronger line on immigration from other West African countries and population growth is likely to be more in line with natural increase. Even with a complete halt to immigration, it is suggested that the rate of population growth will eventually pass 4% a year, if fertility does not decline.

For southern Volta Region the picture is somewhat different from that for Ghana as a whole and rather confused at present, because of the new immigration policy. There are more Ghanaians who migrate from Volta Region to other parts of the country than vice versa, but the Region attracts people from other countries, particularly Ewes from Togo. If immigration from other countries is halted, then there will be an even greater net drain of population from southern Volta than there would otherwise be, with a corresponding effect on the age and sex distribution of the population.

It is likely that males over 15 years will be particularly affected. In the 1960 Census their numbers per 100 females were already low, at 95, 75 and 79 for Ho, Tongu and Anlo North Districts respectively.

The sex distribution ratios for 1960 suggest a large net loss by migration from Tongu and Anlo N., but little change in the Ho District. The rate of population growth between the 1948 and 1960 censuses was rather above the Ghana average in Ho District, rather below in Anlo N. and considerably below in Tongu. Since 1960 the loss from Tongu District has probably increased. The prosperity

¹ A population census was carried out in 1970 but, at this time of writing, results were not available.

² S.K. Gaisie - Dynamics of Population Growth in Ghana, Ghana Population Studies No. 1, Demographic Unit, Department of Sociology, University of Ghana, Legon, 1969.

of the fishing industry created by the Volta Lake has led many Ewe fishermen to migrate. Many of the riparian villages are almost depopulated of indigenous male adults.

Migration appears to operate on population growth in two ways: directly by siphoning people off, and indirectly by lowering fertility. Areas with net emigration tend as a result of their population structure to have a lower fertility than areas of net immigration. Volta Region is peculiar in this respect, because its fertility rate is only marginally below that of Ghana as a whole, explained possibly by the fact that emigrant males can visit home more frequently.

The economic importance of migrants lies not only in the fact that human capital is created in one place and utilised in another, but also in the fact that part of the income generated is transferred back to the original area. Data on remittances are very scanty, but it has been reported that over a third of all households in rural Ghana claim to receive some money remitted from the towns. A figure as high as 3% of national income has been suggested¹. In her Lower Volta study Rowena Lawson² found that in Battor remittances from relatives accounted for £9 per household a year. Non-monetary remittances are also important. Most migrants will bring gifts when visiting their villages. Cloth and clothing are common, but food and other consumer goods are brought, even seeds or agricultural implements.

Migration affects the dependency ratio. If one counts the population aged 15-64 as being the potential work-force, then at the 1960 Census this group represented only 50.2% of the total population in the Volta Region compared with 52.3% in the population at large. Children up to 15 years of age account for 45.6% of the population in Volta Region compared with the Ghana figure of 44.5%. However, the economic burden which a high proportion of children represents can be exaggerated. "In rural Ghana almost one-third of families claim that children of 10-14 years of age earn their keep even when they do go to school³. At the other end of the scale, farmers in Ghana, particularly in cash crops areas, tend to go on working until late in life.

¹ Birmingham, Neustadt, Omaboe. A Study of Contemporary Ghana, Vol II p 143.

² Rowena Lawson, private communication.

³ Birmingham, Neustadt, Omaboe, op cit Vol. II, p.39

The distribution of the work-force for both Ghana and the Volta Region is shown in the following table:-

TABLE 18.

SECTORAL DISTRIBUTION OF WORK-FORCE: GHANA
AND VOLTA REGION

| | <u>Ghana</u> % | <u>Volta Region</u> % |
|---|-------------------|--------------------------|
| 1. Agriculture, Forestry & Fishing | 61.8 | 61.7 |
| 2. Mining and Quarrying | 1.9 | 0.1 |
| 3. Manufacturing | 9.2 | 12.1 |
| 4. Construction | 3.5 | 2.7 |
| 5. Electricity, Gas, Water and Sanitation | 0.5 | 0.3 |
| 6. Commerce | 14.5 | 17.0 |
| 7. Transport and Communication | 2.6 | 1.5 |
| 8. Services | 6.0 | 4.6 |
| | <u>100.0</u> | <u>100.0</u> |

Source: Statistical Year Book 1962

Once again the data are somewhat out of date, but it is reasonable to expect the pattern to be broadly the same today. It also seems probable that differences between different parts of the Region are not marked. In interpreting the figures it is necessary to remember that it is common in Ghana for people to have a number of occupations. The one recorded might not be the most important; it might be the most prestigious. Agriculture accounts for almost exactly the same proportion of the work-force in Volta Region as it does in the country as a whole. The relative importance of commerce in Volta Region suggests a commercially-motivated population with little opportunity for any more productive activity than petty trading. Paradoxically, the relatively high proportion of the work-force in manufacturing confirms this impression. The majority work in small enterprises with little capital and low productivity per man. Thus the 1962 Census shows 32,886 employees in 14,435 manufacturing establishments. Only three industrial units had 30 or more employees - the Denu Oil Mill with 49 employees and the Ho and Keta Power Stations with 80 and 85 respectively.

Urbanisation is low in Volta Region compared with the rest of the country - 13% of the population in towns of 5,000 or more compared with 23% for Ghana (1960) - and towns in the Region are probably growing less rapidly than elsewhere. Keta, in particular, is a dying town.

The most important indicator of employment prospects in the area is the rate of emigration. The evidence suggests that there is a "pull" rather than "push" effect with the rate of migration being greater in boom years. In attempting to assess the prospects for absorbing part of the increase in the

work-force in the area into non-agricultural employment, we need to be able to forecast the economic health of the country. Ghana's economic strategy in recent years has resulted in a stagnation of the growth of employment. The new Government will obviously do all that it can to increase employment, including incentives to adopt labour-intensive techniques, but it will be trying this in the face of a very difficult balance of payments situation.

Although hard information will remain scarce until the 1970 population census has been thoroughly analysed, some speculation is possible about the likely effect of recent trends in education on the labour force.

The population available for employment in the future depends first on fertility, mortality and movement between the regions and across the natural frontier. In the case of Southern Volta migration is particularly difficult to assess. In the absence of better information it may be legitimate to visualise Ho District having a rate of population growth similar to the national average, and Denu and Tonga Districts of having rates 1% and 2% lower respectively. The same might apply to the potential labour force¹ but this may well be modified in the short term by the rapid increase in size of the school population. In rural areas of Ghana there were 22,000 more persons aged 15 - 24 years undergoing full-time education in 1965 than in 1960. These must, of course, be deducted from any increase in the labour-force which is calculated. However, it is in the 10-14 year age-group that there has been the most rapid expansion of education. Looked at the other way round there were 85,000 fewer not attending school in 1965 than in 1960. If each of these is counted as one-half of an adult worker, the conclusion reached is that Ghana's rural labour-force, and by assumption agricultural labour-force, grew by only 1.4% between 1960 and 1965, whilst the population grew at 14%. Looking now at southern Volta, if the pattern of migration were unaltered by the increase in education, the rate of growth of the rural labour-force would show only a temporary slowing-down, (i.e. so long as the proportion of the school-age population in school continued to increase), although it would effect a permanent shift in the pattern of labour-use. It is highly unlikely, however, that the increase in the numbers going through the educational system will not affect the incidence of migration. It is unfortunate that an increase in the rate of growth of the number of potential migrants coincides with a reduction in the rate of growth of opportunities.

¹ The growth of the indigenous (Ghana) labour force was estimated for 1965-70 at 2.8% per annum. See Gaisie, S.K. op cit.

4.3. LAND TENURE

A number of commentators on Ghanaian agriculture have remarked on the importance to development of reforming the system of land tenure. Professor La-Anyane, for example, remarks that the "specific features of the land tenure system which have constituted barriers to improvement in agriculture are the fragmentation of holdings, the difficulties involved in acquiring new land, the inability of a farmer to make permanent improvements or plant permanent crops on land which is commonly owned or on land which he holds by pledge on short-term lease, and the absence of registration. Farmers do not generally hold any legal title to their land and they do not have their holdings registered. This precludes the use of their land as collateral for farm improvement loans which would be valuable in farming larger acreages."¹

Land tenure reform is a nettle which recent Governments have not cared to grasp. There was a rash of land legislation in 1962 and 1963, mainly concerned with the acquisition of land for public purposes. This coincided, of course, with the expansion of State Farms and other public enterprises. There have been frequent complaints subsequently that land for these purposes was illegally acquired. In 1967 the NLC set up a Commission of Enquiry to study the land tenure situation, but it only met three times, after which the Commission were told to postpone their meetings indefinitely. There seems to be strong political pressure against change, principally, on the part of the chiefs.

There are aspects of the Ewe system which are quite different from those in most parts of Ghana, so that discussions in general terms

do not wholly apply to southern Volta Region.² The most important distinctions are that inheritance is patrilinear and that there is no stool-land, the political chief having no say in land matters. Other characteristics include the following: land is normally held by a clan or a family, although there is a fair amount of individually owned land, acquired by purchase, gift or inheritance; sale of land is common, except in areas where land is abundant; partitioning of clanland amongst families is frequent; pledging of land is not uncommon. Where there is population pressure fragmentation of land has become a problem. In the shallott-growing areas of Anloga where land is valuable, because of its scarcity and the high-value crop which it grows, not only is there a ready market in land with individual ownership being the common method

¹ S. La-Anyane in "Issues in Agricultural Policy." p.9

² For detailed description, see R.J.H. Foguski "Preliminary Survey of Land Tenure in the Volta River Basin." Lands Department, Accra 1955.

of tenure, but a system of tenant farming has developed¹. Here possibly is a pointer to the way that the system of land-holding may develop in other parts of the area should economic pressures approximate those in the south.

Ewe land tenure seems to be a system which is reasonably flexible and capable of responding to changing economic circumstances. Individual tenure is developing, although little land is registered. The process for registered land is cumbersome and lengthy. Lack of title may be an excuse for not lending funds in the traditional sector rather than a reason. The Agricultural Development Bank does not require title, although it does insist on some sort of security. It will be a point of crucial importance whether effective programmes for development can be devised which do not encounter serious constraint in the land tenure position.

4.4. THE PATTERN OF FARMS

1) Indigenous Agriculture

The majority of the population in S.E. Ghana are directly or indirectly dependent on the produce of land organised in the way just described, 66,400 holdings being recorded in the Agricultural Census 1970² in the southern Districts of Ho, Sogakope and Denu. (It is interesting however that only 59% of the holders are recorded as being mainly engaged in agriculture in Volta Region as compared with 81% in Ghana as a whole)

The primarily subsistence nature of holdings is emphasised first by their small size and second by the close correlation shown between size of holding and size of household. Population density varies widely within S.E. Ghana from more than 200 per sq. mile in the Denu district to almost nil in parts of Tongu District. This is reflected more in the frequency of cultivation of any one place of land than in holding size. While continuous cultivation is found in the south-east corner, toward the North and West, fallow length increases, with, in some areas long stretches of unused land between villages. It is notable that (usually) small communities of strangers are frequently to be found interspersed among the established villages near Ho, who are reported to have ~~imm~~igrated from the south-east fairly recently in search of land.

2) Large-Scale Farms

The large-scale sector competes with peasant agriculture for resources,

¹ See S.T. Quansah - Land Use in Ho-Keta Plains, Accra, 1957

² At the time of writing the Agricultural Census results are unpublished but have been kindly made available by the Ministry of Agriculture, Ghana.

but it is also complementary insofar as it provides inputs and services to the small-scale sector. Even if one were only interested in peasant producers, then, it would be necessary to look at the large-scale sector in some detail.

The 1966 inventory¹ of large-scale, specialised and institutional farms in southern Volta Region appears in Appendix III. It will be seen that State Farms have played the predominant part. State Farms were, of course, to be the main instruments of a break-through to higher productivity in the "production fronts" phase of agricultural development. The State Farms Corporation (SFC), formed in mid-1962, had over 100 farms with some 15,000 employees by September 1963. Four farms were established with Russian technical assistance (including Adidome and Afife) and two with Israeli technical assistance (Akatsi and Tadzewu). Agricultural officers from the Ministry were at first seconded to the SFC, but they were soon replaced by new staff with little technical training or management experience. It was not until 1965 that a start was made on keeping farm records and accounts, and dishonesty was only too prevalent. Because of the lack of records it is difficult to assess the efficiency of State Farms. The intention in creating State Farms was to increase labour productivity by the introduction of mechanisation and, indeed, there was a large investment in tractors and other machinery. On the other hand, the SFC had to absorb some 8,000 workers displaced from the Cocoa Industry Division so that the acreage cultivated per worker was actually less than in peasant agriculture. "There is therefore the paradox of labour-intensive and capital-intensive methods co-existing on most units. This condition - of large quantities of underemployed labour and capital - in relation with the relatively low per caput area operated, clearly would lead us to the conclusion that the combination of resources was inefficient, which in turn would imply low productivity."²

Since the coup, policy towards State Farms has been to place the Corporation on a sound economic footing by closing down non-viable farms and attempting to make each of the rest commercially self-supporting.³ By the end of 1969 the number of farms had been reduced to 48 from a maximum of 134.⁴

¹ The inventory is made annually, but 1966 is the last one to have been published.

² J.A. Dadson - "Large Scale Farming in Ghana - Recent Experience and Prospects" Legon Journal of Agriculture, Vol. I, No. 2, Sept. 1968, p.88.

³ In the 1970/1 Budget Statement the possibility of attracting private capital to the SFC was mentioned. op cit p 17.

⁴ The cocoa stations have been returned to the Cocoa Division and nine rubber projects in the Western Region have been handed over to Ghana Rubber Est. Ltd.

The following enterprises are undertaken on State Farms in southern Volta Region:-

| | <u>Adidome</u> | <u>Afife</u> | <u>Akatsi</u> | <u>Abutia</u> | <u>Ohawu</u> | <u>Tadzewu</u> |
|-----------------------------------|----------------|--------------|---------------|---------------|--------------|----------------|
| Total acreage cleared to end 1968 | 3,000 | 3,600 | 1,000 | 800 | 200 | 1,000 |
| Maize (acres planted 1968) | 461 | 327 | 430 | 100 | 100 | 193 |
| Rice " " " | 879 | 2,486 | - | - | - | - |
| Cotton " " " | 26 | - | - | 176 | - | - |
| Cowpeas " " " | 23 | 46 | 110 | - | 23 | - |
| Tobacco " " " | 27 | - | 21 | - | - | - |
| Vegetables " " " | 15 | 0.25 | 21 | - | - | 10 |
| Cattle (November 1969) | - | 245 | 484 | - | - | 410 |

All the maize produced by the Corporation goes into its own feedmills. SFC is 75% self-sufficient in feedstuffs and hopes to be completely so before long. It is proposed to build a feed mill at Afife to supply Afife, Adidome and Ohawu. Other foods are marketed directly to the consumer through the Corporation's shops in Accra, Kumasi, Takoradi and Koforidua, or through bulk supplies to schools, colleges, Army, hospitals, etc. Rice is grown at Adidome and Afife. There are limited facilities for irrigation on these farms but the major part of the rice crop is swamp grown. There are rice mills at each place, but the efficiency of milling leaves much to be desired. Cowpeas are an important part of the rotation and find a ready market locally. The Corporation has discontinued tobacco production. Cattle at Akatsi, Afife and Tadzewu come under the management of the Israeli technical assistance expert at Tadzewu. Ohawu is principally a poultry station and there are also birds at Afife and Adidome.

According to the 1964 Census there was an even higher man/land ratio on Workers Brigade Farms (of which there were two in Southern Volta Region¹) than on State Farms. On Brigade farms 1.5 acres were cultivated per worker compared with 3.3 acres on State Farms. Of course, for such a comparison to be truly meaningful one needs to compare the ratios for particular enterprises. The acreage planted on Brigade farms was about one-quarter of that on State Farms. In 1966 a Commission of Enquiry was appointed to enquire into the functions, operations and administration of the Workers Brigade. The White Paper on the Commission's Report remarked that of "all the various wings of the disbanded C.P.P., none excelled the Workers Brigade in notoriety." Nevertheless, it acknowledged that the original object of the Brigade "to provide useful occupation to the unemployed who are unable to secure either formal apprenticeship or

¹ See Appendix III.

steady employment, to afford the youth of the country an opportunity to give patriotic services in the development of the country, and assist in the execution in the development projects, especially in the rural areas" remained valid. The recommendations of the Commission with regard to the Agricultural Wing of the Brigade - generally accepted by the Government - were essentially to simplify operations. All livestock should be sold off and efforts concentrated on cassava and corn in the south and millet and yam in the north. The experiment of hiring out labour to cocoa farmers should be extended to other crops such as rubber, tobacco, etc.

A third "production front" was co-operative farming. Production co-operatives were the responsibility of the United Ghana Farmers' Council and the emphasis once again was to be on extensive methods of cultivation using machinery. At the 1964 Census there were 64 societies in the Volta Region of which 14 were in Sogakope District, ten in Denu District and eight in the Ho District. The 64 societies operated 114 farms, averaging 15 acres planted per farm.

The Legon special study of large-scale farms also examined co-operatives. Of the sample of 28 farms, it was discovered that two did not exist. It was not uncommon to register non-existent societies in order to receive funds fraudulently from the Council. Another four were farmed by individuals; in one case the farm had been registered as a co-operative without the owner's knowledge. Most co-operatives depended on hired labour and in some cases society members did not work on the farm at all. Labourers used the same implements as those used elsewhere and there is no evidence of higher labour productivity than on peasant farms. The UGFC was responsible for provision of inputs, extension services, machinery services¹ and marketing which gave it considerable power over the societies. In theory, management decisions were taken by the members, but in practice UGFC staff tended to intervene. There was usually no firm line of management direction. After the coup in 1966 the UGFC was abolished and collective farming ceased to receive special state support and has more or less collapsed.

The present emphasis in Government policy towards large-scale farming is on the private sector. There have been, however, one or two proposals for special schemes of which one example is the settlement of 80 families on 2,500 acres at

¹ The motto was "payable when able." UGFC operated two tractor hire services in the Region in 1964. It charged £G 17,398 and collected £G 338. The Agricultural Extension Services Division also operated two stations; it charged £G 12,988 and collected nothing.

Peki under a technical assistance agreement with West Germany. The Germans will supply experts, machinery, fertiliser, etc. to the value of NØ 900,000 over a three year period. The Ghana Government's share will be to provide NØ 100,000 over a two year period for payments to Ghanaian staff and the provision of housing for the settlers. The crops to be produced are cotton, tobacco and cassava. The cost of settlement is NØ 12,500 per family. But there are other Settlement plans, under the wing of the Settlements Division of the Ministry of Agriculture, which have already been referred to.

CHAPTER 5.

CLOSING COMMENTS

5.1. THE NATURE OF THE DEVELOPMENT PROBLEM

The earlier chapters of this Report have provided a general review of the state of the economy together with a reference to natural and human resources available for development, particularly in the South East, and of the opportunities for developing them. The two following reports will examine resources and opportunities in much more detail, but already some general comments can be made.

First, while the determination to bring about economic development, remains undiminished the present regime is persuaded that success depends very much on the development of agriculture, and that, furthermore, such development should be widely spread over the country.

Second, South East Ghana is a predominantly rural area where, so far, there have been few signs of successful agricultural development; it is an area of outmigration and, in general, of low levels of living, in part no doubt deriving from a not very fertile natural environment.

It will therefore be in both the national and local interest if ways can be found to improve the agricultural productivity of South East Ghana. Nor is this a short term requirement. Indeed it has been implied that the recent increased school attendance may have served to delay the onset of an employment problem which must be largely solved in the countryside and solved in a way acceptable to a better-educated population.

The nature of feasible development cannot be prejudged but it seems likely that its general direction will to a large extent have to depend first on the better use of local resources of land, labour and capital and on the subsequent reinvestment of the surpluses derived. The funds available at State level for all rural development are meagre and there is no reason why South East Ghana should be specially favoured. It therefore follows that improved levels of living are likely to be achieved only if decision makers - including both private individuals and also those deploying meagre public resources - can be assisted to make the best possible decisions with the resources they have. This in turn implies careful survey, detailed appraisal of many possible innovations in production activities and organisation, and the assembly (probably after careful field testing) of the best ideas.

The preliminary indications are that the infra-structural improvements, which are immediately desirable and possible, are chiefly those (like local access roads and drinking water supplies) that can be achieved by self help; that improvements in crop production and processing will be achieved first in those crops, such as maize, cassava, groundnuts, oil palm which are currently grown in the area; that livestock production requires investigation; and that agricultural development needs to be considered in a total rural context.

5.2. THE PLANNING AND IMPLEMENTATION PROBLEMS

First there are planning principles which, though they may be self-evident, may be briefly stated.

1. The planning process should as far as possible involve both those ultimately responsible for implementing the plan and also those for whose benefit it is written. This principle has implications about the kind of information (e.g. about the attitudes of the local people to the prospect of change) which it is desirable to collect as well as the range of people whom it will be desirable to consult when ideas have been formulated.

2. Local planning must be consistent with national planning. The institutional setting must therefore be taken into account, and the planning process itself must be fitted into the new planning structure. (Similarly, once action, however exploratory becomes possible, the local institutions - Village Development Committees, District Agricultural Councils, etc. will become the vehicles for the ideas evolved.)

3. This is not to say that serious problems of political philosophy may not arise, however. Perhaps the most obvious concerns the possibility of conflict between income distribution and the rate of economic growth. In the early stages the innovational possibilities may well apply to a very high proportion of the population since the vast majority are dependent on agriculture and are almost uniformly poor. It may well be necessary for the existing political institutions to become involved so as to influence the extent to which this homogeneity is preserved.

It has been a tendency among Ghanaians in the past, perhaps particularly at top political/administrative level, to assume that, if only the right administrative structure could be found, agricultural development would occur. Consequently there has been almost continuous change in administrative structures since Independence. What is required now is a period of stability in which individuals can become effective. Admittedly, this does not entirely dispose of the administrative problem. The Ghana government is currently

pursuing three policies at the same time - the stimulation of indigenous farmers through extension supported by a variety of public and para-statal services; the stimulation of specific commodity production through Commodity Boards; and rationalised, large-scale production mostly along state farming and settlement farming lines. A comparative study of these forms, carried out now would provide the basis for a choice of that combination of structures most likely to be effective in bringing about change in S.E. Ghana. It should be emphasised that it is probably the optimal combination of structures, rather than one or the other, which needs to be discovered.

But whichever single administrative structure or combination of structures is chosen, it is submitted that 'middle-level management' is of critical importance. Choices about production activities and patterns, consumption and saving, investment and resource utilisation will continue to be made mostly by small-scale independent farmers. But it seems inevitable that 'management' at a rather higher level will be of increasing significance. Farmers will need managers when they group together to invest in relatively large units of capital or to market their products advantageously; government departments need managers when allocating loans, distributing funds to encourage self-help, planning and organising irrigation schemes, etc.; technical advice and the provision of farmers' supplies require managerial planning and evaluation as a basis; large scale farming units (to the extent that they persist), as well as new and revived processing units will also require management.

It is therefore clear that in addition to a choice of administrative structures, the number and quality of personnel available to take 'middle-level' decisions will greatly influence the rate at which agricultural development occurs. Close attention will have to be paid to both the supply and the placing of these personnel.

APPENDIX I
REGIONAL CROP PRODUCTION TARGETS 1971/2

| Crop | Target for 1970/71 | Increase Proposal 1971/72 | Target for 1971/72 | DISTRICT DISTRIBUTIONS | | | | | | |
|--------------------|--------------------------|---------------------------------|--------------------------|------------------------|----------|--------|--------|---------|----------|---------|
| | | | | Ho | Sogakope | Denu | Kpandu | Jasikan | K'Krachi | Nkwanta |
| | Acres | % | | Acres | | | | | | |
| Maize | 78,000 | 10 | 85,800 | 13,114 | 11,114 | 12,114 | 17,116 | 13,114 | 9,614 | 9,614 |
| Rice | 16,000 | 15 | 18,400 | 1,342 | 2,342 | 3,342 | 1,842 | 3,842 | 3,342 | 2,342 |
| Shallot | 10,000 | 5 | 10,500 | - | - | 500 | - | - | - | - |
| Cashew | 1,000 | 200 | 2,000 | - | - | - | - | - | 1,200 | 800 |
| Coconut Rehabil | 15,000 | - | 4,000 | - | - | 4,000 | - | - | - | - |
| Guinea Corn | 4,000 | 10 | 4,400 | - | - | - | - | - | 2,200 | 2,200 |
| Groundnuts | 4,000 | 3 | 4,120 | 460 | 600 | 500 | 460 | 500 | 800 | 800 |
| Oil Palm | 30,000 | 5 | 31,500 | 5,500 | 5,400 | 7,400 | 6,600 | 6,600 | - | - |
| Yams | 82,000 | 2 | 84,460 | 600 | - | - | 800 | 1,000 | 50,000 | 29,600 |
| Vegetables | 60,000 | 5 | 68,250 | 10,000 | 13,000 | 8,000 | 13,000 | 12,000 | 2,000 | 2,000 |
| Cassava | 125,000 | 5 | 131,250 | 15,000 | 24,250 | 13,000 | 20,000 | 23,000 | 21,000 | 15,000 |

Source: Regional Crop Production Programme, Volta Region. Crop Production Division 1971/2 p7

APPENDIX II

TRAINING REQUIREMENTS FOR THE MINISTRY OF AGRICULTURE

Graduate staff normally take their first degrees in Ghana at the University of Ghana, Legon or the University of Science and Technology at Kumasi, and opportunities for postgraduate work are increasing. Since 1965 arrangements have been made for S.T.O's to take a one-year diploma course at the University. It was introduced at a time when agriculture was at a particularly low ebb in terms of students opting to take agriculture and is considered as a temporary expedient. Promotion from A.A. to S.T.O. depends on satisfactory completion of a two-year diploma course at Legon for general agriculture or animal health and at Kumasi for horticulture. The Ministry sees this also as an interim measure and would like to undertake this training itself in a more practical way.

Other staff are trained in the Ministry's own Agricultural Colleges which are the responsibility of the Training and Manpower Division. These are as follows:-

| | |
|-------------------------------------|-----------------------------|
| <u>Agricultural Colleges</u> | - Kwadaso, Ohawu, Nyankpala |
| <u>Veterinary (Training) School</u> | - Pong-Tamale |
| <u>Cocoa Training School</u> | - Bunso |

Their role in training can best be seen by examining the career ladder for technical staff. Starting at the bottom, there are two ways of becoming an F.A.II. The general method is for skilled labourers or supervisors (a non-pensionable post) to be recommended for a three-month course by their immediate supervisor. They will normally have worked for five years as a supervisor and must have 10 years of formal education. The courses are ad hoc ones arranged by the Training and Manpower Division and are not very frequent. The second method is the usual one in the Cocoa Division. In this case middle school leavers are given a 3 months course in cocoa duties at Bunso and then appointed as F.A.III's (non-pensionable). After five years they can then be promoted to F.A.II. Promotion from F.A.II to F.A.I. depends on length of service and proficiency. Field Assistants who wish to be upgraded to Agricultural Assistants can be selected for a two-year course at Nyankpala Agricultural College. Courses are also offered at Kwadaso and Ohawu for secondary and technical school leavers respectively who will become A.A.'s although not all

of the graduates will go to the Ministry. The course is a three-year one with two years in the college and one in the field. Ministry students are bonded for two years with a N200 penalty for breaking the bond. Kwadaso provides a general agricultural training whilst Ohawu has an engineering bias. Entry qualification for the former is 'O' level and for the latter is City and Guilds. Courses for cocoa and veterinary staff are offered at Bunso and Pong-Tamale respectively. Promotion from A.A. to S.A.A. is based on seniority and merit, but the jump is unlikely to have been made in less than five years. If by the time he is 45 years old an S.A.A. has not been sponsored for a course, he may be promoted to S.T.O.II on compassionate grounds.

In addition to the agricultural colleges the Ministry has Farm Institutes at Adidome, Asuansi, Wenchi, Ejura and Navrongo. These do not train Ministry staff but turn out prospective farmers. Admission is not so much on standard of education (they are, in general, middle school leavers with ten years of education, although not necessarily with a Certificate) as on motivation and opportunity. Many of the students are sponsored by a prospective employer, possibly a relative. The general course lasts for one year, but four-month specialised courses are run in pig and vegetable production, and poultry and vegetable production. It is proposed to switch the general course to two years duration, beginning from February 1970 with Ejura and Navrongo. In the past Farm Institutes have sometimes run 2 - 3 day courses for farmers teaching specific techniques such as crop protection. These are, however, expensive and are not done now.

APPENDIX III

Inventory of large-scale, specialised and Institutional Farms and Service Stations, Southern Volta Region 1966

| <u>Name</u> | <u>District</u> | <u>Main Produce/ Type of Station</u> | <u>Area</u> <u>Acquired Cleared</u> | | <u>Area*</u> <u>under</u> <u>Crops</u> <u>Annual &</u> <u>Vegetable</u> |
|--|-----------------|--|--|------|---|
| <u>STATE FARMS</u> | | | | | |
| Akatsi S.F. | Denu | Food Crops | 1200 | 1200 | 678 |
| Adidome S.F. | Sogakope | Rice/Maize/ Tobacco/Poultry | 6000 | 2300 | 2260 |
| Torkpo-Tadzewu S.F. | Denu | Maize/cattle | 2300 | 800 | 239 |
| Afife-Wuta S.F. | Denu | Rice/Maize/ Cowpeas/Poultry | 5340 | 3345 | 2773 |
| Abutia S.F. | Ho | Cotton/Maize | 1000 | 720 | 516 |
| Adidome Tobacco S.F. | Sogakope | Tobacco | 22 | 22 | 21 |
| Awudome State Sugar Prod. Crop. Anyirawase | Ho | Sugar cane | 12300 | 200 | 40 |
| <u>WORKERS' BRIGADE</u> | | | | | |
| Kpetoe Brigade | Ho | Maize/Groundnuts/ Tobacco | 1280 | 510 | 220 |
| Klukpo Camp | Sogakope | Maize/Rice/ Groundnut | 1100 | 1000 | 470 |
| <u>VRA</u> | | | | | |
| Gbefi VRA Agric. Nursery | Denu | Tobacco nursery/ oil palm | 30 | 25 | 11 |
| <u>SEED MULTIPLICATION</u> | | | | | |
| Improved Seed Multip. Ohawu " Dzodze/ Matrikasa | Denu | Maize/Rice/ Groundnut | 89 | 89 | 84 |
| Eastern Rgn. - Asikuma) Frankadua) | Denu | Maize/Rice Cassava | 150 | 120 | 96 |
| | Somanya | Maize/Cassava | 202 | 202 | 96 |
| | Somanya | Cassava/Maize | 112 | 112 | 88 |
| <u>M. of A. OTHER STATIONS</u> | | | | | |
| Farm Mech. School Adidome | Soga | Maize/Cassava | 20 | 19 | 7 |
| Animal Husbandry Div. Amelorkope | " | Livestock | 1200 | 1150 | |
| Vakpo Agric. ext. | Soga (sic) | Oil palm | 15 | 15 | |
| <u>COMMERCIAL ESTATE</u> | | | | | |
| Irrig. Pilot Farm, Aveyime | Soga | Rice/ sugar cane/ cowpeas | 200 | 200 | 49 |
| <u>PRISON FARMS</u> | | | | | |
| Ho Prison Farm | Ho | Cassava | 640 | 16 | 16 |

* Gbefi and Vakpo also had 14 and 10 acres, respectively under perennial crops.

Development Studies Series

| | | <u>Price</u> |
|-------------------|--|--------------|
| 1. September 1966 | Contrasting Policies in Irrigation Development: Sudan and India. D.S. Thornton | 38p |
| 2. July 1967 | The Marketing of Groundnuts in the Sudan. E.M. Low | 38p |
| 3. December 1967 | Agriculture in South-West Nigeria. M. Upton | 38p |
| 4. December 1967 | Agricultural Credit in Botswana. A. Harrison | - |
| 5. May 1969 | Irrigation in Botswana. M. Upton | - |
| 6. May 1969 | The Economics of Irrigation Development - A Symposium S.G. Sandford, R.F. Wynn, D.S. Thornton | 38p |
| 7. February 1970 | Agricultural Extension in Botswana. B.G. Lever | - |
| 8. January 1971 | Cattle Marketing in Botswana. D.J. Ansell | - |

