

DATA NEEDS FOR AGRICULTURAL DEVELOPMENT  
IN  
GHANA.

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by  
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suitable for present Ghanaian conditions are:

- i) Multiple Sample Census;
- ii) Sample Surveys, or Area Surveys, and
- iii) Special Studies.

No attempt is made to discuss the theoretical adequacy of those methods selected - they are selected on their suitability under present conditions in Ghana.

The study demonstrates that there are significant gaps in the presently available data. These gaps have resulted in complete absence of some very important data, e.g., yields, costs, acreages, etc., that are needed for proper planning of the agricultural development of Ghana.

The ultimate conclusion of the study is that the gaps in the present system of collection of data should be bridged. This could be accomplished through better organization of present institutions and facilities. This would require the cooperation and proper co-ordination of all related disciplines of the Ministry of Agriculture in Ghana.

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## CHAPTER I

### INTRODUCTION

The viewpoint of the author of this study is that while it is possible to plan the growth processes of an economy without facts; a developing country like Ghana, which aspires to benefit from the experiences of advanced countries should have some basic facts (data) about her agriculture in order to plan its development effectively. By this means she will be able to avoid some of the mistakes and failures of advanced countries committed through the 'trial and error' methods which they had to use because they never had another country to emulate. Ghana is fortunate in this respect because she has the experiences of several advanced countries as a guide in her development.

The above does not mean that it is not possible to plan an economy without facts. As stated by Stolper in his book "Planning Without Facts", it is possible to plan the development of an economy without facts when "time and information are limited".<sup>1</sup> He contends that while "per capita income is an operational concept in the sense that it is potentially measurable, yet a development economist often cannot wait until population or income data are sufficiently full and accurate to be useful to him, and that a theory in

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<sup>1</sup> Stolper W. F., Planning Without Facts, (Harvard University Press 1966) p. 1

which such data become curical policy variables does not help him very much".<sup>2</sup> He argues further that decisions in development planning are based on other factors besides statistical data. He cites information from social sciences legal and social surroundings; executive abilities, etc., as some of the requirements. As economic development refers to a specific country in specific circumstances of time and place, policy prescriptions according to him should start from the recognition of the historic uniqueness of that particular society.

While the argument by Stolper is accepted to be applicable in the initial stages of planning an economy, this study is conducted on the basic assumption that it is less costly to plan a development program with facts than it is to plan it without facts. Here the aim of the study is to indicate which data are necessary for development planning and how to collect them.

Ever since man became conscious of his capabilities and began an organized and communal life three discernible forms of organization could be recognized in his endeavours to survive, namely traditional, command and market forms of economy. The traditional society or economy pivots around tradition, by handing down the varied and necessary skills and tasks from generation to generation according to custom and usage. Examples of such organization are ancient Egypt where, says Adam Smith, "every man was bound by a principle of religion to follow the



occupation of his father, and was supposed to commit the most horrible sacrilege if he changed it for another." In India until recently certain types of occupations were assigned traditionally through the caste system. In Ghana certain cultural duties are still handed down from father to son or from an uncle to a nephew as the case may be. State linguists, drummers, carriers of chiefs, etc., are some examples of occupations or duties that are performed on those lines in Ghana.

Under the command type of organization a central authoritarian rule sees that tasks and duties of the society are performed. Again the pyramids of Ancient Egypt are monuments of that kind of rule. The Five Year Plans of Soviet Union are not executed through hand-me-down custom or through individual self-interest but rather through the machinery and power of a central authoritarian rule.

The market forms of organization resort to subtle means appealing to individual interests and allowing individuals to follow occupations of their own choice for their survival, being guided in their pursuances by a ruling body elected through the secret-ballot. The guidance is in the form of directives, taxation and legislation.

The primitive modes of existence consisted mostly of individualistic endeavours, each clan leading a nomadic type of life, producing his own food and meat and whatever clothing they used, and defending their interests and welfare as the occasion demanded with whatever resources they had at their disposal. As

the mode of living became more communalistic some of these purely individualistic endeavours to get food, clothing, shelter as well as health needs changed, giving way to specialization in production for exchange. The change took various forms of the above mentioned three main systems of organization singly or in combination. With the development of a social system it became apparent that if the society was to grow then those public interests which could not be covered through individual efforts should be taken care of by some agency. If people were to go about their jobs in peace without being harassed there was need for some body or organization that would be responsible for law and order. Needs of the public that could not be satisfied individually should be performed by the government, at the same time allowing each person to exert himself in whatever vocation or activities he had the best aptitude and interest. This work of creating the necessary atmosphere and public utilities of the society has devolved on various kinds of governments under the above named main types of systems of organization.

To be able to perform their jobs effectively some planning and principles are necessary. The idea of laissez-faire<sup>3</sup> as practiced by some old societies are things of the past. Both under communist or socialist and capitalist societies some planning is done by the ruling party. It is really difficult if

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<sup>3</sup> Laissez-faire--no interference in economic activity by government, whose functions would be limited to that of a "night watchman" i.e. a mere protector of life and property and enforcer of contracts.

not impossible to find an economy or society today that operates purely on the principle of laissez-faire. There have been some theories to describe or explain the growth processes of societies. Mention could be made of Rostow's Doctrine which recognises five main stages:

- a) Traditional Society Stage which is characterized by limited production functions, based on pre-Newtonian<sup>3</sup> science and technology and on pre-Newtonian attitudes towards the physical world. The concept however is not static and during this period expansion of holding and introduction of innovations into agriculture, industry and trade could occur.
- b) The Pre-condition for take-off stage--that is a transitional period in which conditions for take-off are developed--transformation of a traditional society in ways necessary to benefit from modern science, to fend off diminishing returns, etc.
- c) The Take-off Stages--the stage when the old ideas and resistances to change or steady growth are overcome.
- d) The Drive to Maturity Stage--characterized by a long interval of sustained progress with extension of modern

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<sup>4</sup> Newton is here used to characterize that period in history when men came to believe that the external world was subject to a few known laws, and was systematically capable of productive manipulation.

technology over the whole economic activities. Some 10-20 per cent<sup>5</sup> of the GNP is steadily invested, with output-stripping the population growth.

- e) The Age of High Mass-consumption Stage--characterized by a shift of the leading sectors towards durable consumer's goods and services as is now obtained in North America.

On the other extreme is the Marxian Theory of modern history which also recognizes five main stages<sup>6</sup>-- The Feudal, Borgeois, Capitalism, Socialism and finally Communism in that order.

In this study the pros and cons of the various theories of development and growth will not be discussed. The theories will be used so long as they help to indicate the problems associated with the growth process and the role agriculture plays in the process and hence the type of data required for the planning and policy decisions of those who plan the development of Ghana, i.e, the government as well as those whose activities promote economic growth. This includes the farmer, the businessman, and other institutions. That is, the study is concerned with the practical aspects of development, the role of agricultural statistics, and how statistics are collected, indicating gaps in the present system of collection in Ghana. Suggestions will be made as to how adequate agricultural data for development planning and decision-making could be collected.

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<sup>5</sup> Rostow W. W., The Stages of Economic Growth, (Cambridge University Press 1968) p. 9

<sup>6</sup> Meier G. M., Leading Issues in Development Economics, (New York/Oxford University Press 1964) p. 23

The world has been variously grouped into developed and developing/under-underdeveloped; civilized and primitive; industrialized and non-industrialized countries, based on the per capita income definition. The classification of the world into developed and developing countries will be accepted as it is now defined despite the fact that the question of what one really means by developed and underdeveloped is debatable whether the per capita income method of classification is valid as values are different from country to country. No one country can claim to be both materially and morally equally developed. The underfed Asians or African may be more spiritually developed than somebody in affluent countries like Canada and United States of America. The study will accept the per capita definition<sup>7</sup> and its implications as at present, and on that premise examine the characteristics of Ghana and her data requirements for agricultural development and growth.

Ghana, like most developing countries, is generally characterized by a high level of illiteracy, subsistence production in agriculture which offers employment for about 70% or more of the working population; underemployment; a lack of industries and factories, or what has been described as "Stationary Technology", that is, producing with simple techniques and implements which have not gone through changes over the years. Specialization is almost negligible, even though areas of specialized activity in non-agricultural activities can be found, e.g., handicrafts. Production being purely subsistence does not leave any appreciable surplus for regular sales.

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<sup>7</sup> Per capita income definition is accepted because it is more representative of the growth process. It comprises population and the GNP.

Irregular sales are, however, made whenever production is in excess of what the family needs, or whenever cash is needed for purchasing such items as clothes, ornamental wares, etc.

Ghana has come into contact with some developed countries, either through mutual trade or through colonization. This association has given a character to the Ghanaian economy which has been described as dualism--social and technological. Boeke has suggested the following formal definition of dual society in his book of Economics, "Social dualism is the clashing of an imported social system with an indigenous social system of another style. Most frequently the imported social system is high capitalism. But it may be socialism or communism just as well, or a blending of them."<sup>8</sup>

As indicated from the beginning, as society becomes more complex by coming together, it becomes necessary to plan the growth and development of the economy. The above described characteristics, together with the avowed aim of Ghanains to catch up with the developed countries, make planning of development processes of Ghana necessary as well as obligatory. In this planning process, emphasis has been laid generally on agriculture and industrialization. They often receive preferential treatment, sufficient to justify the contention that they are the coddled favourites of governments. Reasons for agriculture to occupy such an important position in the development

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<sup>8</sup> Culled from Meier, G. M., op. cit., p. 55.

process are commonplace. It is the food producer; it is heavily dependent on bountiful or niggardly nature; it involves natural resources which need to be conserved for future national welfare; it is "a way of life" and initially commands a large block of votes. Because a large section of the population is engaged in farming, it forms something like a reservoir of labour which could be transferred to non-agricultural sectors. Again, agriculture and rural production can be raised quickly and with little capital; it could be mechanized to free labour for industrial development. Development of other sectors involve capital, technical know-how, (managerial and entrepreneurial), institutional arrangements, social overhead and a host of pre-requisites which can be ignored in the early stages of agricultural development. Indeed, agriculture could be made to yield rapid and large returns quickly if good government policies were followed.

Evidence for above claims include doubling crop production, raising crops in uncultivated areas by irrigation with such low capital techniques as diversion dams, simple pumps and wells, use of improved seeds, local construction of improved fishing vessels, pottery and the use of under-employed labour for building of roads and schools in the initial stages. Rural development is also capital-saving because it does not involve such overhead costs as housing, social and health facilities. It also does not involve movement of people as is the case with urban development.

The above unique characteristics of agriculture have influence in adopting the following development objectives for agricultural programmes in Ghana:

- 1) An increase in production to provide for home consumption as well as exports.
- 2) Improvements in marketing, roads, storage facilities, etc.
- 3) Changes in land tenure system.
- 4) Redistribution of income among the rural population towards equality of income and opportunity.
- 5) Using part of surplus production to raise the standard of living of the rural population.
- 6) Encouraging shift of population from agricultural sector to industry or other non-agricultural sectors.
- 7) Promotion of investment and reinvestments.
- 8) Education of the farming or rural population.

To be able to achieve the above objectives and hence promote quick economic growth as well as social prosperity, it is imperative that the planners, and for that matter the government, should know or understand thoroughly agricultural activities that will help the objectives to be realized. In order to understand the economy or society and hence be in a position to plan its growth there is great need for facts (data) or information about the society as it operates now. It is here that the need for accurate and up-to-date data on the various aspects of the society arises. Data are needed to help planning and decision-making of



both governments and individuals--choice of alternative occupations or business; choice of which section of agriculture to support, etc. Data are needed on potential resources of the economy, man-power requirements, capital sources, levels or income and income distribution, crops grown (acreage yields, consumption, sales); livestock raised (ages, sex distribution, etc.) Data are needed on facilities, conditions and institutions of farming, farming business that will help analysis, for administration and planning, to formulate agricultural policies and to help advisory, educational and extension services, etc. Data are also required for studies on management; marketing and pricing; employment opportunities, international trade policies, and growth of the farm economy as a whole.

#### Scope of the Study:

The central purpose of this study is to survey the existing statistical information basic to agricultural planning in Ghana and to discover those gaps or points of weakness that are likely to inhibit sound formulation and implementation of effective agricultural and related programs. In consecutive publications of the Government Statistician's Economic Survey of Ghana attention has been drawn to the inadequacy of data on the country's agriculture. For example, the following is the opening statement of the section on Agriculture in the 1963 Republic of Ghana Economy Survey: "As has been mentioned in previous Economic Surveys a study of the structure of the agricultural

in Ghana is seriously handicapped through lack of sufficient statistical data."<sup>9</sup> The 1966 publication of the same bulletin starts thus, "statistics on Ghana's agriculture are still meagre. This has hindered the assessment of the structure and developments in this important sector of the economy. Attempts to remedy this have been rather disappointing and it will take some time before any useful data become available."<sup>10</sup>

It is not easy to locate gaps in information or weaknesses in statistical institutions by looking for gaps and weaknesses directly. This study therefore starts by discussing the problems of agricultural development in Ghana -- education, low income of farmers, land tenure, fragmentation of holdings, scarcity of capital, employment and the like in Chapter Two.

This is followed in Chapter Three by a discussion of the present statistical setup and the methods of collection by the two main government agencies concerned with collection of data. Some frame of reference and some indication of what would be satisfactory body of knowledge are given. These are then compared with the existing situation exposing gaps and discussing the problems associated with data collection in Ghana. A discussion of the statistical schedules that are in use in the Ministry of Agriculture is given. The Chapter ends with essentials of statistical service.

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<sup>9</sup> Republic of Ghana Economic Survey 1963 (Ghana Government bulletin 1963) p. 64

<sup>10</sup> Republic of Ghana Economic Survey 1966 (Ghana Government bulletin 1966) p. 46

Chapter four contains a discussion on types and methods of collection that will help collect the necessary data, keeping in mind the problems enumerated in Chapter Three. The above follows a theoretical discussion of various capital for agricultural development.

The last chapter is made up of conclusions drawn from the preceding chapters, and recommendations or suggestions as to how the present level of data on agriculture could be improved. The chapter concludes with suggestions about further studies.

CHAPTER II  
PROBLEMS OF AGRICULTURAL DEVELOPMENT  
IN  
GHANA

General:

Ghana as a developing country is characterized by a shift from what has been described as subsistence production to production for the market. Along with this change is a change of the mode of government from that of being ruled by a foreign power to being self-governed. The change of the way in which she was governed has typically resulted in awakening of national consciousness and a desire by the indigenous government to promote rapid economic growth and progress of their people so that they could enjoy some of the benefits of civilization. In this connection let me quote the former president of the Republic of Ghana to show the determination of newly independent governments to develop their countries at a faster pace than that of their former colonial powers. When he was launching the first development plan of Ghana, he stated in Parliament, "Mr. Speaker, when the Convention People's Party<sup>1</sup> came to power in 1951, the

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The then ruling party of Ghana (1951-1966)