



THE ROLE OF THE DEVELOPMENT BANK  
IN THE INDUSTRIALIZATION OF GHANA

by

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S.B., Massachusetts Institute of Technology

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Professor Philip Franklin  
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Dear Professor Franklin:

In accordance with the requirements for graduation, I herewith submit a thesis entitled "The Role of The Development Bank in The Industrialization of Ghana."

Sincerely yours,

Signature redacted

Kenneth King, Jr.

## ABSTRACT

### THE ROLE OF THE DEVELOPMENT BANK IN THE INDUSTRIALIZATION OF GHANA

by

Kenneth King, Jr.

Submitted to the School of Industrial Management  
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requirements for the degree of Master of Science  
in Industrial Management.

#### Purpose and Objectives

The purpose of this thesis is to develop a practical, effective approach to solving the most critical problem-area faced by the Ghanaian industrial development bank today.

Additionally, the topic was investigated in the hope that the information and conclusions developed would be of value to the recently established MIT internship program in Africa.

#### Scope

This thesis will be restricted to an examination of problems encountered by development banks in handling industrial investments in the private sector. "Private sector" is defined, for the purpose of this thesis, as that sector of the economy comprised of industries normally characterized by private ownership and management in a capitalistic, free enterprise system. This is the area in which the existing Ghanaian development bank is concentrating its efforts by an initial employment of governmental funds. Also, problems of operation, as opposed to those of formation, will be stressed, since the Ghanaian bank is an established institution.

#### Method

The methodology employed was relatively simple and straightforward. Available literature sources on development banks, the Ghanaian economy, and past economic development efforts of Ghana were first analyzed. Following this step, several leading experts in the fields of economic development were interviewed to develop a better understanding of the practical operating problems of a development bank in

an underdeveloped country.

Based on the information developed in this fact-finding process, one particularly critical problem-area in the Ghanaian bank's operation was isolated as being the key "bottleneck" to realizing its potential role in economic development--the selection and promotion of suitable new enterprises.

A general program was then devised to strengthen the bank's capabilities in this area.

### Conclusions

The basic conclusion reached was that the Ghanaian development bank represents a potentially effective "vehicle" for promoting industrialization in Ghana; however, it must strengthen its capabilities for selecting the best enterprises for the economy. The bank must also take positive action to improve the operating efficiencies of its present unprofitable enterprises, even though, in retrospect, they were ill-conceived.

### Recommendations

The following general program is recommended for the Ghanaian bank in order that it might promote industrialization more effectively:

1. Re-appraise its role relative to the Second Development Plan of Ghana.
2. Re-appraise its role relative to other developmental agencies and better coordinate its efforts with theirs.
3. Adopt the modern management techniques of the more advanced countries to increase the profitability of its ventures now in operation.
4. Adopt the "feasibility study" approach in the selection of new enterprises.
5. Hire a technical economist capable of directing and coordinating efforts on this selection process.

Thesis Advisor: Professor Carroll L. Wilson

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## CHAPTER I

### INTRODUCTION

#### Purpose

The purpose of this thesis is to develop a practical, effective approach to solving the most critical problem-areas faced by the Ghanaian industrial development bank today.

#### Objective

This topic was chosen by the author with the specific objective of contributing to the success of the newly-established MIT internship program in Africa.

This latter program is based on the assumption that the future strength and influence of the United States over the next decade will depend to a significant extent on its success in effectively helping the underdeveloped countries of the world to help themselves.

The plan appears to be a sound way for MIT to bring its considerable resources to bear on this problem of national importance. Specifically, the program consists of placing Master's Degree graduates of the School of Industrial Management on the staffs of industrial development banks or government agencies to assist in industrialization activities.

It is hoped that the information and conclusions

developed by this thesis will be of value to the program.

### Scope

This thesis will consider only those problems of development banks arising from efforts to stimulate private industry. This is the area in which the existing Ghanaian development bank is operating.

Also, problems of formation often encountered by development banks will not be treated in detail, as the bank in Ghana is already in existence and its major problems are of an operating or policy nature.

### Review of Previous Research

The author was unable to find any previous studies directed toward the specific problem under consideration. In fact, there has been little information published on the more general subject of African development banks. This is probably attributable to the fact that most banks in these countries have been established in recent years and therefore lack any meaningful operating record.

Two excellent general studies on development banks have been made by staff members of the International Bank

for Reconstruction and Development.<sup>1, 2</sup> These provide excellent background information on this type of bank as a special financial institution.

Method of Procedure

It was recognized early in the study that the author's lack of intimate, first-hand knowledge of the Ghanaian economy constituted a serious handicap to developing any program for the Ghanaian bank that would be more than an academic exercise. However, it was decided tentatively to proceed with the study and isolate the critical problem-areas faced by the bank. Once determined, these areas were examined for suitability of treatment by the author with his limited background.

Fortuitously, the most critical problem-area--the selection and promotion of new enterprises--was one requiring an approach relatively independent of local factors. Also, further investigation revealed that an actual pilot-study was in operation in West Africa to help overcome this specific weakness.

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<sup>1</sup>William Diamond, Development Banks (Baltimore: The Johns Hopkins Press, 1957).

<sup>2</sup>Shirley Boskey, Problems and Practices of Development Banks (Baltimore: The Johns Hopkins Press, 1959).

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Then, it was decided to concentrate on this "bottle-neck" and develop a program for the Ghanaian bank to improve its capability to select and promote profitable industrial development projects.

The actual methodology employed to accomplish this was simple and straightforward, as shown by the main procedural steps below:

1. Studied available published literature on development banks as a financial institution.

2. Studied available published literature on the economic, political, social, and cultural characteristics of Ghana.

3. Analyzed Ghanaian governmental economic development plans and the operating record of the one industrial development bank.

4. Interviewed the authors of the two leading books on development banks.

This step was of inestimable value in developing a "feel" for the most pressing practical problems faced by development banks.

5. Interviewed the Managing Director of the West African pilot-study sponsored by the Rockefeller Brothers Fund.

The Managing Director is an internationally known

authority on economic development and was most helpful in outlining the problems associated with development projects in Africa and particularly in Ghana.

The specific problem-area chosen for detailed consideration was encountered repeatedly throughout the above sequence of steps.

On the basis of an analysis of all the information developed by the above procedure, the author designed a program to strengthen the bank's capabilities in this area.

## CHAPTER II

## THE NATURE OF DEVELOPMENT BANKS

Definition

A development bank, as used in the context of this thesis, is an institution to promote and finance enterprises in the private sector of an economy.<sup>1</sup>

Although this definition excludes those institutions primarily concerned with government enterprises, it must be realized that the latter banks can contribute heavily to the private sector. Diamond cites the specific example of how the Sumerbank of Turkey, which is concerned with state enterprises, helped create a reservoir of skilled labor and management resources which have been of tremendous aid in the development of private industry.<sup>2</sup> In fact, some of the top personnel of the Industrial Development Bank (primarily involved in private sector development) were drawn directly from the experienced managerial ranks of the Sumerbank.

A distinction is sometimes made between "development banks" and "development corporations" on the basis that the former is concerned primarily with loan capital and the latter with equity capital. However, for purposes of this thesis,

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<sup>1</sup>William Diamond, Development Banks (Baltimore: The Johns Hopkins Press, 1957), pp. 4-5.

<sup>2</sup>Ibid., p. 4.



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the term "development bank" is used in its broadest sense and includes institutions which finance enterprises by either form of capital.

Financing of new enterprises is only one of the two primary objectives of development banks stated in the basic definition above. The promotional aspect of their activities in the provision of entrepreneurship or risk-taking is of equal, if not greater, importance in stimulating economic growth. In fact, it is largely this particular capability, i.e., to initiate enterprises with considerable risks, that makes the development bank such an attractive "vehicle" for accelerating economic progress in the lesser developed countries of the world.

### Purposes and Types

#### Purposes

As originally defined, the development bank has as its primary purpose the promotion and financing of enterprises in the private sector. This major objective then is reduced to promoting industrial development if the agricultural segment of the private sector is excluded from consideration, as it is in this thesis. Thus, development banks will be viewed primarily as institutions for promoting the industrialization of an economy.

To gain a better appreciation for the usefulness of development banks in achieving this objective, it is helpful to consider the problem of industrial development from an over-all viewpoint. Generally speaking, industrial development requires four main factors which must be present in adequate quantities and in the proper proportions:

1. Capital for industrial investment
2. Effective mechanism for channeling existing savings into investment, i.e., a capital market
3. Entrepreneurship (risk-taking initiative)
4. Technical and managerial resources

Limited industrial progress in the less-developed countries can readily be traced to shortages and improper proportions of these factors. Considering each ingredient in turn, it is obvious that the capital requirements of the more ambitious underdeveloped countries often far exceed their ability to accumulate earnings at a sufficient rate to finance the industrial growth desired. Private savings can close the gap somewhat; however, the second factor is usually lacking also, which precludes the effective utilization of existing savings in industrial investment. The third factor, an initiative for finding new industrial ventures and assuming risks to undertake them, is very often in short supply. Finally, a dearth of technical and managerial

resources is almost universally encountered in the less-developed countries, which is obviously a serious handicap to industrial progress.

In spite of critical deficiencies in these four factors, many of the less-developed countries have been experiencing terrific internal pressures for industrial growth due to rapid political advancements. The development bank was developed largely as a mechanism to permit the type of accelerated industrialization required in such countries by overcoming these shortages.

Types

One of the most striking characteristics of the institution termed "development bank" is the great variation among individual banks in scope and nature of activities. This is fitting and proper because each bank must necessarily reflect the particular needs of the country or part of country which it serves. Banks may differ in a multitude of ways; however, the following represent major distinguishing features:

1. Degree of public and private control

Most banks are public institutions; however, several are owned jointly by government and private interests. A few are privately owned and controlled.

2. Importance of financing role

Some banks act as major financing institutions; others

regard financing to be a less important function.

3. Type and size of enterprise assisted

The majority aid only industrial enterprises; some will also assist agricultural projects.

Many devote most of their attention to medium and large-scale industry; however, some have been formed specifically to aid small enterprises.

4. Type of capital supplied

Most banks are granted the freedom in their charters to provide funds of whatever type is best for a given situation, i.e., by equity investments, or loan capital, or some intermediate form. However, some are constrained from participation in equity.

5. Degree of technical assistance supplied clients

Many development banks will provide a range of types of technical assistance on projects they finance, e.g., engineering, accounting, or management aid. Some will offer advice on a project even though they have no financial interest. Others supply no technical aid at all.

6. Significance of enterprise appraisal efforts

Some banks will search for and evaluate new enterprise possibilities. The results of these studies are then passed on to interested businessmen. In fact, many will start industrial ventures and manage them until private interests

can be found to replace their role as owners and managers.

7. Importance in promoting a capital market

Certain banks actively strive to promote a capital market by selling investments from their portfolios, by underwriting private security issues or, more indirectly, by selling their own securities.

As mentioned above, this diversity among banks is both necessary and desirable. No single model can possibly satisfy the unique economic, social, and political characteristics of all less-developed countries. Any attempt to establish a new bank in one country patterned blindly after a successful one in another country would probably create more problems than it would solve.

Problems of Formation

The major problems associated with the formation of a development bank will be indicated and discussed briefly in this section. Detailed treatment is purposely avoided as it would not contribute to solving the specific problem under investigation.<sup>3</sup> However, an awareness of these problems contribute to a better understanding of the development bank as an institution.

Should a New Institution Be Created?

This question should be given careful consideration

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<sup>3</sup>The interested reader can find detailed discussions of these problems in Development Banks by William Diamond and Problems and Practices of Development Banks by Shirley Boskey.

before any action is taken to establish a development bank. If, for example, industrial investment is being handicapped by inadequate long-term capital, it might be possible to encourage existing institutions to provide the capital. If this were possible, the creation of a new institution might be unwarranted.

In the case of insufficient long-term capital, the following methods should be weighed as alternative approaches to the formation of a development bank:<sup>4</sup>

- 1. Use of autonomous departments of the central bank
- 2. Formation of a formal or informal consortium of banks or individuals
- 3. Use of existing banks directly

It should be pointed out that two factors tend to reduce the attractiveness of depending upon existing banks for significant long-term financing: (1) the conflict between the traditional short-term, "high liquidity" outlook of commercial banks and the "low liquidity," high risk characteristics of long-term investments; (2) the diversion of the existing banks' resources from much-needed short-term (working capital) to long-term financing.

In summary, although existing financial institutions

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<sup>4</sup>Diamond, op. cit., pp. 42-47.

should be closely examined as possible alternatives, there are certain latent dangers in over-taxing the banking system by long-term financing. Furthermore, experience of many underdeveloped countries indicates that the incompetence of commercial bankers in handling long-term financing, the inadequacy or absence of a capital market, and the limited effectiveness of monetary policy lead to the conclusion that a new institution is, in fact, required to provide long-term capital for industrial development.

When the added vital factors of entrepreneurship and technical resources are needed as well as capital, it becomes even more apparent that a development bank is required to promote industrial growth in a given economy.

What Should Be Its Scope of Activities?

Three general limiting factors appear to have been employed historically to restrict a bank's activities to a reasonable scope: (1) sectors (or industries within one sector) of the economy, (2) geographical areas, and (3) size of enterprise.

In recent years many of the new development banks have been limiting their activities to one industry, e.g., mining, manufacturing, or agriculture. Specialization in one or a small number of industries carries the advantage of permitting the bank to concentrate all its financial and technical

resources in those fields where the needs are greatest. Too broad a scope of activities can easily result in an ineffective diffusion of resources throughout the economy.

In a large country characterized by regions with different economic problems, it is often advisable to establish regional development banks. For example, this type of situation led to the Indian decision to establish a number of State banks, since an intimate knowledge of local conditions and of applicants for finance was essential.

The matter of enterprise size is particularly important in the case of a bank which engages in equity financing. Such a bank must consider the potential profitability of the company and, therefore, often chooses investments in the larger companies. In the case of loans, there is a minimum size investment (often corresponding to the smaller size companies) below which a properly selected and supervised loan cannot be profitable. The problem of providing smaller quantities of capital to the smaller-sized enterprises has been solved in certain countries by establishing special development banks for that purpose, e.g., India's National Small Industries Corporation.

What Legal Form Should Be Used?

This question must be given careful consideration by any group seeking to establish a development bank. It is not,



however, a particularly relevant question for purposes of this thesis and will therefore be discussed only briefly and in general terms.<sup>5</sup>

In general, a government sponsored development bank is established by legislation or by executive decree. A private institution, on the other hand, may be created in accordance with the general corporation laws of the country or by special statute. Most of the private banks have been formed under general corporation laws.

The charter reflects the purposes and objectives of the bank and also contains restrictive clauses relating to its scope of activities.<sup>6</sup>

### Problems of Operation

#### How Should the Enterprises Be Selected?

The only generalization that has validity in solving this problem is that each bank must develop the best selection criteria for its own specific needs. Objectives and

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<sup>5</sup>The interested reader can find a detailed discussion of methods of incorporation and charters on pages 11-18 in Problems and Practices of Development Banks by Shirley Boskey.

<sup>6</sup>Shirley Boskey, Problems and Practices of Development Banks (Baltimore: The Johns Hopkins Press, 1959), pp. 145-188. Contains three complete sample charters of existing banks.

policies vary from one development bank to another, and, indeed, vary within one bank over time. Consequently, selection criteria cannot be considered standard in nature.

One important distinction arises at this point between development banks and purely financial institutions. In the case of the latter, earnings are considered to be the single significant test of economic efficiency. The situation is not so simple for development banks, since they are concerned also with the total impact of a project on the economy. In fact, there may be cases where the value of a project to the economy, e.g., in the form of employment opportunities or foreign exchange earnings, may outweigh the disadvantage of limited earnings accruing to the enterprise. The proper weighting of such factors obviously creates severe problems in the assignment of priorities to alternative projects.

Although no standard criterion or set of criteria are applicable to all projects, it is nevertheless true that certain factors, such as the following, are usually considered in some form.

1. Economic priority

Some banks are required, by reason of charter provisions or in the performance of special functions, to make investment decisions primarily on the basis of an enterprise's

economic priority. This latter may take the form of preferred categories of industries or a certain desired condition required of preferred enterprises.

## 2. Profitability

As outlined above, all banks are concerned with the profitability of prospective ventures as an indicator of economic efficiency. A private enterprise deemed likely to be unprofitable should not be encouraged to proceed. Additionally, it would be a poor investment for the bank.

Another argument in favor of close financial scrutiny is the favorable effect it invariably has on the bank's reputation and consequently its ability to attract private capital for joint efforts.

Also, the earning power of a bank's enterprises is a powerful test for measuring its vital functions of mobilizing private investment capital for economically important projects and building a foundation for a capital market.

## 3. Political considerations

Most governments recognize that development banks, public and private, can best fulfill their functions if allowed to operate independently of their dictates.

Nevertheless, there have been cases where only lip service has been paid this doctrine. One way for a bank to minimize the risk of governmental interference is to draw

up its charter with extreme care.

4. Size of the bank's resources

Project selection is invariably influenced by the finite capital and personnel resources of the development banks--both from the standpoint of total investment required and also the degree of risk associated with the venture.

5. Size of the enterprise

Many banks, limited by their resources, are unable to aid both large and small enterprises. Some of these prefer to invest in the larger firms believing that the total economic impact of their investments will thereby be greatest. Other reasons for this choice are based on the following: the belief that larger firms are generally better managed than smaller firms and the opinion that the larger companies afford a better opportunity for training local managerial personnel. This is an important consideration in most underdeveloped countries where qualified managers are characteristically in short supply.

Other banks feel that they can contribute most by spreading their funds more widely throughout the economy and therefore invest in a relatively large number of smaller firms.

6. Ownership of the enterprise

Many banks are authorized to invest only in private ventures. Restrictions of this sort are normally decided

upon when the bank is formed and are so stated in the charter.

Many development banks tend to give preference to a foreign-managed enterprise because the application from such a company is likely to be a better conceived, more detailed prospectus. Also, the prospects of a competent management group are much better than in a local firm. Sometimes, however, the pressure of the local business group plus a desire on the part of the bank to develop an entrepreneurial group within the country have led to a preference for domestic enterprise.

Public banks seem to be more reluctant than private banks to assist enterprise in which foreign capital is invested.

Many banks prefer to invest in corporations rather than partnerships or proprietorships because of the assurance of management continuity. Another advantage of the corporate form is the ease with which additional financial participation by others can be effected at a later date. This is usually encouraged by development banks to broaden the base of ownership in the economy.

#### 7. Establishment or expansion

As a general rule, the charters of development banks make no distinction between assistance to existing enterprises and new ones. It is an interesting fact, however,

that most banks tend to emphasize the establishment of new firms in their activities. The apparent reason for this is that experience indicates that entrepreneurs often are unable to secure capital for new, high-risk ventures, regardless of the profit potential. The banks, in turn, rightfully conclude that their developmental objectives can best be fulfilled by assisting such entrepreneurs to enter the new fields.

A result of this emphasis on financing new enterprises is that some banks have themselves become industrial promoters and have provided research services for industry.

It is essential that the selection process be comprehensive, detailed, and objective. Toward that end, certain banks have developed formal appraisal procedures for use by their staffs. One excellent example of such a procedure is contained in Boskey's Problems and Practices of Development Banks,<sup>7</sup> which represents the one used by the staff of the Industrial Credit and Investment Corporation of India (ICICI). A checklist of data to be gathered and evaluated for each investment proposal by the ICICI staff is referred to in this procedural outline, but is not published with it. A

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<sup>7</sup> Shirley Boskey, Problems and Practices of Development Banks (Baltimore: The Johns Hopkins Press, 1959), pp. 189-195.

copy of this checklist is included as Exhibit 1 in Appendix A. It represents an excellent guide for the thorough, fact-finding type of appraisal that is so important for assuring a development bank of a sound investment. Such a guide has the additional value of serving as an excellent training aid for staff members.

What Investment Terms Should be Employed?

1. Size of investment

Charters usually do not limit the size of individual investment. However, many banks have adopted financing limits as part of their operating policy. An upper limit forces the bank to diversify its holdings; a lower limit helps screen out many of those applications which have such a small return that the cost of investigation and supervision are not covered. Limits are sometimes expressed as a proportion of the bank's capital or may be absolute amounts of money.

2. Form of investment

Although some charters authorize only conventional fixed-interest loans, most permit loans, equity investments, or loans convertible into equity. The actual portfolio of a bank reflects the interaction of the following factors with the particular requirements of the applicant:

a. Sources of the bank's funds. Banks are generally hesitant to purchase equities with borrowed funds, even

if the loan terms do not preclude such use of the funds. Thus, the equity portion of the bank's resources normally sets an approximate limit beyond which the bank may not prudently make equity investments.

b. Economic environment. Under inflationary conditions, a bank tends to emphasize equity investment to protect its capital. Another reason for equity financing is the bank's difficulty in selling long-term debt obligations from its portfolio when it is desirable to recover its funds for other purposes or stimulate a capital market.

It is, of course, possible for a bank to employ certain protective devices where financing must be provided in loan form, e.g., conversion right, accelerated amortization requirements, or escalator clauses tied to some price index.

c. Preferences of the bank. Often a new bank will welcome the regular and immediate income resulting from a loan portfolio to stabilize its operation and permit it to be soundly established at an early date.

After successful establishment, a bank often turns to equity investment because they enable the bank to share in the profitability of successful enterprises, to demonstrate the attractiveness of industrial financing, and to stimulate a capital market by sale of shares from its own portfolio.

d. Preference of the client. The preference



of the client must also be taken into account on the question of degree of outside participation. Generally, businessmen resist the sharing of ownership with banks. This resistance has been the most noticeable where sizeable financing is sought from a government bank. Private firms are reluctant to accept government equity financing because of the fear of governmental interference in management. Also, tax considerations may make debt financing less costly than equity financing from the client's standpoint.

e. Finances of the enterprise. One primary criterion for the best form of investment in a given company is the question of which type will result in the best capital structure for the company.

### 3. Interest policy

Generally, banks try to set their loan charges to cover administrative expenses and the cost of borrowed funds, plus a margin for reserves and for profit to the share capital. For purposes of a preliminary estimate, the minimum share margin may be taken to be the minimum dividend that the bank feels is necessary to keep shareholders' funds voluntarily invested in its shares and to preserve the future possibility of expanding its equity base.

The factors entering into the decision as to the best interest rate are numerous, complex, and interrelated.

Practically speaking, the basic arithmetic of lending rates has often consisted of adding two or three percentage points to the cost of money to the bank.

#### 4. Security policy

While charters usually authorize unsecured loans, it is general practice to try to obtain the maximum security. The amount of collateral required and the types of assets acceptable are both functions of the nature of the borrower, the objectives of the bank, and the business practices of the economy.

#### How Can a Capital Market Be Stimulated?

In the typical underdeveloped country the prospects for the rapid development of a capital market are decidedly limited. Development banks or other institutional innovations are not likely to increase significantly the volume of private voluntary savings at any given income level over a short period of time. The banks can be of valuable service, however, in channeling a larger proportion of the savings into productive uses. The short-term goal then of a program for fostering a capital market is to provide the incentives and machinery for redirecting the savings of the economy into productive investments which require more funds than the entrepreneurs can provide. The long-range objective is the expansion of the economy's potential for self-sustaining economic growth.

The contribution of development banks to these goals varies greatly from country to country. Unless, however, the bank itself in a given country has a proven record of sound investments characterized by objectivity and high quality, its role in promoting a capital market will be minimal.

Various means for promoting a capital market are the following:

1. Placement of industrial securities

By selling investments from their own portfolios, banks can broaden investor participation in industry. This measure increases the supply of marketable securities and also broadens the base for future sales. Additionally, it permits the gradual withdrawal of bank resources which might be better employed on other developmental projects.

2. Sales of securities with the bank's guarantee

By this technique the investor obtains the additional protection of a direct claim upon the bank's resources in the event of unforeseen difficulties.

3. Sale of the bank's own obligations

This method relieves the investor of the burden for appraising particular enterprises. He need only determine the extent of his confidence in the bank.

4. Joint participation

This approach of joint partnership between the bank and an interested investor requires confidence in the bank

and also the bank's having an extensive network of contacts with potential investors. It results in an enterprise in which a certain proportion of the outstanding shares are held by private investors thereby broadening the ownership base.

CHAPTER III

THE ECONOMY OF GHANA<sup>1</sup>

The Country

Ghana, formerly a British Colony called the Gold Coast, became an independent nation in March of 1957 and is now a member of the British Commonwealth of Nations. It is in West Africa with its south boundary a three-hundred-mile coastline running almost east and west, about 5½ degrees north of the equator along the Gulf of Guinea of the Atlantic Ocean (see Figure 1). It has an equable climate with temperatures between 65°F and 95°F and a rainfall of from 28 to 80 inches in different parts of the country. It extends north about four hundred fifty miles from the ocean and has an area of 91,843 square miles. The population is estimated currently at 4,676,000 Africans and 15,000 non-Africans.

The Economy

Summary

The economy is based largely on exports of cocoa (the principal agricultural product), gold, timber, and diamonds.

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<sup>1</sup>The two major sources consulted for information contained in this chapter were The Ghana Report (New York: G. H. Wittman, Inc., 1959) and the Ghana Handbook of Commerce and Industry (Accra: Ministry of Trade and Industries, 1958).



NORTHERN AFRICA SHOWING LOCATION OF GHANA

Figure 1

Per capita annual income is estimated at \$160, among the highest for African countries. The Ghana pound exchanges at par with the British pound, and there are at present no restrictions on exchange with other currencies or on imports. The currency is sound, prices are stable, and there is little public debt. There is so little private investment capital in the country that most of the new economic development underway and planned is being undertaken by the government. One of the primary sources of development funds are the reserves built up by the Cocoa Marketing Board. This agency generates reserve funds by buying cocoa from the Ghanaian farmers at a guaranteed minimum price and then reselling it at world market prices, which historically have usually been higher. Investment is undertaken by the Industrial Development Corporation and the Agricultural Development Corporation. Foreign capital is welcome and special inducements are offered by the government for new business investments.

#### **National Income and Expenditures**

The national income and gross national expenditures in the Ghana economy for 1953-57 are given in the following tables:

(See following page)

TABLE I

National Income of Ghana  
(in £ thousands)

	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>
Wages & salaries recorded	£ 44,489	£ 49,366	£ 56,271	£ 58,036	£ 61,291
Gross profits of companies	15,594	15,389	15,183	15,570	16,210
Operating surpluses of boards & corporations	5,698	9,303	4,439	(1)	(1)
Government income from property	20,479	46,342	30,902	18,796	18,570
Rent	3,049	3,919	3,930	4,556	4,753
Incomes of cocoa farmers & Brokers	30,950	29,567	33,507	37,524	30,007
Miscellaneous incomes	<u>132,466</u>	<u>133,365</u>	<u>131,967</u>	<u>127,649</u>	<u>145,160</u>
Gross domestic product	252,725	287,251	276,199	262,131	275,991
Net income from abroad	<u>- 5,663</u>	<u>- 4,526</u>	<u>- 3,513</u>	<u>- 4,205</u>	<u>- 5,242</u>
National income & depreciation	<u>£247,062</u>	<u>£282,725</u>	<u>£272,686</u>	<u>£257,926</u>	<u>£270,749</u>

(1) Included in miscellaneous incomes

(Source: The Ghana Report, G. H. Wittman, Inc., 1959, p.14)



Although not directly comparable with the above table, i.e., on a straight conversion from dollars to Ghanaian pounds, the following table expressed in terms of millions of dollars giving the reader a better idea of the amount of funds involved:

(See following page for table.)

TABLE II

Distribution of National Income by Types of Income, Ghana  
1950-1955

(At current factor cost)

<u>Ghana a /</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>
Total (millions of U. S. Dollars)	476.6	564.5	588.9	572.3	682.9	653.8
Types of Income as Percentage of Total:						
Wages and Salaries Recorded	14.8	14.5	18.3	20.5	18.5	21.1
Gross Profits of Companies	8.0	8.2	7.2	7.6	6.3	6.5
Operating Profits of Boards and Corporations	12.8	6.6	1.7	2.8	3.8	1.9
Government income from property	6.3	8.1	9.2	10.0	19.0	13.2
Other rent and property income	0.5	0.4	0.5	0.5	0.4	0.4
Income of Cocoa Farmers and Brokers	17.7	15.3	16.2	15.2	12.1	14.4
Miscellaneous Incomes <u>b/</u>	43.9	50.9	50.4	46.4	40.8	43.1
Net factor income from rest of world	- 4.0	- 4.0	- 3.5	- 3.0	- 0.9	- 0.6

(Source: Economic Survey of Africa South of the Sahara, Volume I  
Center for International Studies, Massachusetts Institute  
of Technology, 1958, p. 32)

<sup>a</sup>Before deduction of depreciation charges, the estimates thus relate to gross national product at factor cost.

<sup>b</sup>Mainly income of unincorporated enterprises.

TABLE III

Gross National Expenditure at Current Prices

1953-1957  
(in £ thousands)

	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>
Consumers <sup>2</sup> expenditure on goods and services	£211,083	£204,588	£220,482	£221,871	£247,969
Public authorities <sup>2</sup> current expenditures on goods & services					
(a) Central Gov <sup>2</sup> t	12,632	13,569	17,554	17,582	21,697
(b) Local authorities	3,000	3,409	3,951	4,250	4,500
Gross domestic capital formation					
(a) Fixed capital formation	29,901	31,759	35,784	37,885	36,840
(b) Change in stock for exports	-3,128	1,276	1,568	3,527	-6,467
(c) Change in stock of imported goods	559	2	6,599	3,090	- 690
Net investment abroad	<u>5,201</u>	<u>40,739</u>	<u>1,840</u>	<u>-13,342</u>	<u>-14,433</u>
Gross nat <sup>1</sup> l expenditure at current mkt. prices	£259,248	£295,342	£287,778	£274,508	£289,416
Less taxes on expenditure	-12,362	-13,704	-15,627	-16,963	-18,845
Subsidies	<u>176</u>	<u>1,087</u>	<u>535</u>	<u>381</u>	<u>178</u>
Gross Nat <sup>1</sup> l expenditure at factor cost	<u>£247,062</u>	<u>£281,725</u>	<u>£272,686</u>	<u>£257,926</u>	<u>£270,749</u>

(Source: The Ghana Report, G. H. Wittman, Inc., 1959, p. 15.)

Purchasing power in Ghana is derived mainly from three sources: government expenditures, private capital investment, and payments by the Cocoa Marketing Board to farmers. One of the facts shown by the above tables is that increased payments by the Government have been the most significant factor boosting purchasing power. This added purchasing power has not been offset by taxes now absorbed by increased domestic production. It has been largely expended on increased imports for personal consumption.

Balance of Trade

Until 1956 Ghana had a favorable balance of trade. In 1958 it again became favorable.

TABLE IV

Balance of Trade  
(£ thousands)

	<u>Imports</u> (in thousands)	<u>Exports</u>	<u>Cocoa Exports</u>
1957	£ 96,564	£ 91,596	£ 50,873
1956	88,920	86,604	51,063
1955	87,876	95,664	65,559
1954	71,052	114,600	84,599
<u>1953</u>	<u>73,800</u>	<u>89,940</u>	<u>56,143</u>
*			
1951	63,792	91,992	60,310
1949	45,420	49,932	
1947	22,584	27,420	
<u>1938</u>	<u>7,872</u>	<u>11,424</u>	

\*Omitted years follow a similar pattern

(Source: The Ghana Report, G. H. Wittman, Inc., 1959, p.16)

Cocoa's great importance to Ghana's export revenue can easily be seen from the above table. Also of interest is the recent increase in the value of exports other than Cocoa.

In 1957 the United Kingdom took 37.3 per cent of Ghana's exports, non-sterling OEEC countries, 35 per cent, and the United States, 15.8 per cent.

Of the £96,564,000 of imports in 1957, the biggest were these:

TABLE V

Imports by Major Commodity Classes

Food, drink & tobacco	£15,844,000	16.3%
Textiles & clothing	20,617,000	21.4
Durable producers' goods		
Materials	9,927,000	10.3
Capital equipment	12,512,000	13.0

(Source: The Ghana Report, G. H. Wittman, Inc., 1959, p. 17.)

Of the total value of 1957 imports, the value of consumer goods equaled 56.8 per cent compared with 54.2 per cent in 1956. In 1957 the United Kingdom supplied 42.3 per cent of Ghana's imports, non-sterling OEEC countries 26.5 per cent, and the U. S., 4.8 per cent. The figures for 1956 were 46.9 per cent, 25.8 per cent, and 3.8 per cent.

### Balance of Payments

Ghana's balance of payments changed from a consistently favorable relation to an unfavorable one in 1956 for the first time but again became favorable in 1958.

TABLE VI

	<u>Balance of Payments</u> (in £ thousands)								
	1950	1951	1952	1953	1954	1955	1956	1957	1958
nt pts	93,027	112,090	108,489	115,661	142,457	121,769	112,461	112,290	138,032
nt nts	72,948	92,789	97,007	110,460	101,718	119,929	125,803	136,723	127,245
us cit) rrent unt	20,079	19,301	11,482	5,201	40,739	1,840	(13,342)	(14,433)	10,787

(Source: The Ghana Report, G. H. Wittman, Inc., 1959, p. 17.)

In 1958 the trend started in 1956 was reversed, and a favorable balance of payments was attained. Current indications point to continued capital development and increased availability of investment capital for partnership with private business.

### Capital Formation

A country can only promote real economic growth by adding to its productive capacity. This necessarily involves

saving and investing a portion of its gross national product, after allowing for depreciation, depletions, and obsolescence of its existing capital. Studies of various underdeveloped countries indicate that a 1 per cent increase annually in total output requires a capital investment of about three times this amount.<sup>2</sup> Allowing for depreciation and depletion of capital and assuming a population growth slightly in excess of 1 per cent per year, it has been estimated that a minimum investment of 6 per cent of the gross domestic product<sup>3</sup> is required to maintain the existing standard of living. To raise this standard significantly, may require an annual investment of 15 per cent of the gross domestic product.<sup>4</sup> During the period 1950-1955 investment in Ghana has ranged from 9.6 per cent (1951) to 16 per cent (1955) of gross domestic product.<sup>5</sup> Gross fixed capital formation has increased

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<sup>2</sup>Economic Survey of Africa South of the Sahara, Volume 1 (Center for International Studies, Massachusetts Institute of Technology, Cambridge, 1958), pp. 13-14.

<sup>3</sup>Gross domestic product (at market prices) is equal to the sum of consumption expenditure and gross domestic capital formation, private, public and the net exports of goods and services of the country and differs from the gross national product at market prices by the exclusion of net factor income payments received from the rest of the world.

<sup>4</sup>"Foreign Aid Program," Compilation of Studies and Surveys. Senate Document 52, July 1957.

<sup>5</sup>Economic Survey of Africa South of the Sahara, op. cit., p. 35.

at the rate of about 10 to 12 per cent annually in recent years.<sup>6</sup>

### Central Government Finances

The estimated budget for the fiscal year ending June 30, 1959, is as follows:<sup>7</sup>

TABLE VII

Estimated Budget for Ghanaian Government  
(Fiscal Year Ending June 30, 1959)

<u>Revenue</u>		<u>Expenditure</u>	
Import duties	£16,198,000	Extra ministerial	£1,293,300
Export duties on cocoa	11,500,000	Agriculture	5,627,740
Other export duties	520,000	Communications	2,840,320
Miscellaneous customs	48,000	Defense	3,342,430
Excise & local duties	2,037,000	External affairs	1,221,560
Betting tax	70,000	Education	7,463,410
Income tax	5,100,000	Finance (excluding	
Royalties (Ashanti)	170,000	road funds)	1,942,620
Mineral duties	1,600,000	Health	3,430,350
Licenses, fines, stamp		Housing	836,120
duties	872,260	Information &	
Fee & charges for services	436,220	broadcasting	1,197,270
Receipts & earnings of		Interior	2,228,660
Gov <sup>t</sup> dep <sup>t</sup> s	4,301,400	Justice	117,200
Reimbursements	715,310	Labor & cooperatives	775,350
Rents on lands, etc.	450,340	Local government	1,728,740
Interest & Redemption	1,926,600	Trade	609,730
Miscellaneous receipts	74,400	Works	4,385,210
Colonial Development &		Road fund appropriations	3,448,500
Welfare	32,730	Statutory expenditure	<u>4,490,300</u>
Special Receipts	<u>2,411,850</u>	Total Expenditure	£46,978,810
Total Revenue	<u>£48,464,710</u>	Surplus	1,485,900
		Total Revenue	<u>£48,464,710</u>

(Source: The Ghana Report, G. H. Wittman, Inc., 1959, p. 18.)

<sup>6</sup>Ibid., p. 19.

<sup>7</sup>The Ghana Report, G. H. Wittman, Inc., (New York: G. H. Wittman, 1959), pp. 18-19.



The estimated revenue balance of £9,989,880 at July 1, 1958, will, when augmented by the expected surplus of £1,485,900 for 1959, equal £11,475,780.

However, the above budget omits estimated heavy expenditures for fiscal 1959 in the amounts of £3,749,830 for road maintenance (to be offset by £3,448,500 road fund revenue) and of £22,371,541 for non-recurring development expenditure (to be reduced by £4,500,000 development fund revenue). Thus, total estimated expenditure for fiscal 1959 will be equal to £73,100,181, and the deficit will equal £16,686,971.

On the surface the historical pattern of the government budget apparently shows a sound and conservative policy. The deficits which have existed can be attributed to development expenditure and there is generally a budgetary surplus on current account. Building for the future by development expenditure can be curtailed or discontinued if financial exigencies demand. However, until that contingency arises, the substantial balances of the government in its revenue balance and in its overseas deposits are being spent to develop a broader-based economy less dependent upon cocoa and the price fluctuations of the world cocoa market. The vital question as to whether development expenditures have been wisely made will be treated in the following chapter.

The government is not burdened with a large debt. The outstanding external funded debt on June 30, 1958, was

£3,180,000. Funded internal debt equalled £5,500,000 and unfunded internal debt equalled £11,891,000.

### The Banking System

The Bank of Ghana, capitalized at £ one million, is the nation's central bank and issues its currency, the Ghana pound, which is on a par with the British pound. Its statement of assets and liabilities at the close of business on April 30, 1959, was as follows:

TABLE VIII

Bank of Ghana - Statement as of April 30, 1959

Assets	£ G
Currency cover assets:	
West African Currency Board Notes and coin £	172,000
Sterling: Current Account, money at call and treasury bills	16,094,000
U.K. Gov't Securities (3 yr. maturity)	<u>6,819,000</u>
Total Currency Cover Assets	23,085,000
Cash	341,000
Government Securities	18,000
Foreign Assets: Current Account, money at call and treasury bills	4,642,000
Fixed Assets	713,000
Other Assets	<u>72,000</u>
	£G 28,871,000

Liabilities

## Notes and coin outstanding

In banking dept.		341,000
In circulation		<u>22,744,000</u>
Total currency liabilities		23,085,000
Capital		1,000,000
Government deposits		2,014,000
Other deposits		
Bank	1,759,000	
Other accounts	751,000	2,510,000
Other liabilities		<u>262,000</u>
	£ G	28,871,000

(Source: The Ghana Report, G. H. Wittman, Inc.,  
1959, p. 107b)

The Bank of Ghana's primary functions are to issue currency, act as a bank for the government and for the other banks, and to act as a clearing house.

To date, the Bank of Ghana is in no position to perform a central bank's stabilizing functions, but ultimately this is to be expected.

The Ghana Commercial Bank is a commercial institution with £500,000 authorized capital of which £200,000 is outstanding, all held by the government. It serves largely African interests and allows the two British banks to handle the banking for foreign enterprises. Rates for loans run from about 4 per cent per annum for a loan fully secured by government securities, to about 10 per cent for an unsecured loan. Bank of West Africa, Ltd., and Barclays Bank D. C. O.

are the two British commercial banks.

#### Capital Market

Today there is little or no market in Ghana for shares in Ghana corporations. The government is anxious to foster such a market and the proposed Ghana Holding Corporation has as one of its objectives the development of such a market. In spite of the general lack of business and commercial sophistication, the government would like to see a stock market develop.

#### Consumer Market

The growing purchasing power and consumption expenditure on goods and services favorably affects the possibilities of Ghana as a consumer market. Per capita gross expenditure in the five years ending December 31, 1957, has been as follows: 1953, £55; 1954, £62; 1955, £59; 1956, £55; and 1957, £57.<sup>8</sup> Compared to other African countries, this represents a relatively high and stable per capita expenditure.

The estimated breakdown in 1957 of private domestic consumption expenditures is shown in Table IX on the following page:

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<sup>8</sup>The Ghana Report, G. H. Wittman, Inc., (New York: G. H. Wittman, 1959), pp. 20-21.

TABLE IX

Private Domestic Consumption Expenditure (1957)

<u>Item</u>	<u>Per Cent</u>
Food	57.2
Clothing and personal effects	15.7
Transportation & communication	6.5
Beverages	3.7
Tobacco	3.4
Fuel & light	2.9
Furniture, furnishings, & household equipment	2.6
Rent & water charges	2.0
Household operation	1.8
Personal care & health expenses	1.6
Miscellaneous services	1.6
Recreation & entertainment	1.0
	<hr/>
Total	100.0

(Source: The Ghana Report, G. H. Wittman, Inc.,  
1959, p. 21.)

Ghana's merchandise trading is chiefly controlled by large foreign houses dominated by eleven British companies. The larger number of general merchants, mostly Lebanese, generally buy wholesale from the major companies but also import for their own account. Most of the merchandising in the

country is ultimately in the hands of small African traders. This trade is often financed by the principal trading houses, which derive funds from European money markets. The female Africans who dominate retailing in Ghana, the so-called "mammy traders," frequently have large amounts of capital, and some have capital amounting to many thousands of pounds.

#### Electrical Power

Generation of electrical power in Ghana has been as follows:

TABLE X

Electrical Power Generation

(Thousands of KW-H)

<u>Year</u>	<u>Private</u>	<u>Government</u>	<u>Total</u>
1957	195,524	86,561	281,985
1956	163,421	67,407	230,829
1955	183,578	57,766	241,344
1954	191,116	50,241	241,357
1953	184,511	43,928	228,438

Gold and other mining companies generate the greater part of the electricity in Ghana with their own facilities and for their own use.

Industrial demand is increasing, but distribution is still mainly to domestic consumers. The Electricity Department

feels that the installation of two more generating units in Accra will result in adequate total capacity to match current demand. Future expansion of generating facilities will take place only when required by greater demand.

## Transportation

### 1. Railways

The Ghana Railway and Harbors Administration operates the railway as well as the harbors. A separation of the two services has recently taken place in which government-owned road transport and the railways will be under a single authority and the harbors under a different authority.

The railway consists of 591 route miles, and the routes may be seen on the detailed map of Ghana (Figure 2). No extensions of the railway route are currently envisioned unless the Volta River project is approved.

### 2. Harbors

In the past the two principal harbors in Ghana have been Takoradi and Accra. When Tema harbor becomes operational, almost all of Accra's business can be expected to move there except for the unloading of oil from anchored tankers through flexible pipe line.

### 3. Road transport

As of early 1959 the Public Works Department maintained 4,297 miles of which 1,721 were bitumen surfaced and 73 miles

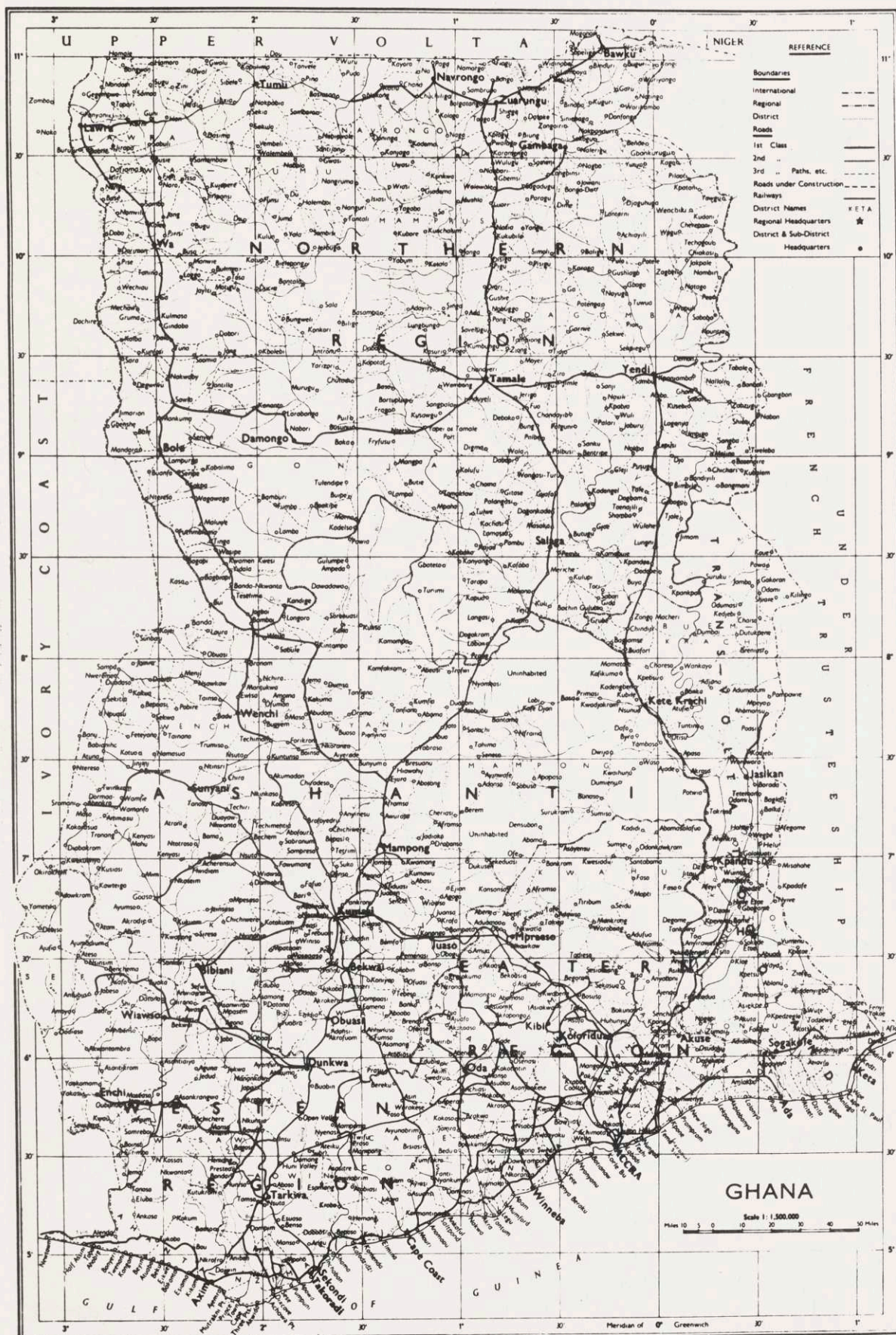


Figure 2



of new road were under construction. The location of the highways may be seen on the map (Figure 2).

As of December 31, 1956, 33,220 road motor vehicles had licenses of which 13,677 were goods vehicles. Road haulage is dominated by "mammy lorries," i.e., vehicles for the transport of goods and passengers owned singly or in relatively small fleets by individual Ghanaians.

Road transport has been winning business from the railways in recent years. Under the planned changes in the Railways and Harbors Administration, government-owned road transport will fall within the jurisdiction of the railway authorities.

Communication

1. Telephone and telegraph system

At the end of 1959 Ghana had approximately 20,000 telephones in service. Subscribers numbered over 11,000.

Telegrams outside Ghana go via the Cable and Wireless Company, but internal telegrams are handled by the Posts and Telecommunications Department of the government. There are about ninety telegraph installations in the country which connect by telephone with areas not having installations.

2. Radio broadcasting

The government plans to establish an international broadcasting system intended to be capable of reaching all

of Africa's 220 million people with four short-wave transmitters. The proposed languages are English and French initially and later Arabic, Hausa, Portuguese, and Kiswahili. The political implications of such a system are obvious. Additionally, it could be an excellent advertising medium for consumer products which might have a wide distribution in Africa.

### Agriculture

Agriculture is the most widespread occupation in Ghana. It occupies over 70 per cent of the entire working population.

Also, agriculture is important because of the contribution it makes to the country's revenue. Cocoa is easily the leading export of Ghana and in 1957 yielded £51 million out of a total export revenue of £92 million. If the value of all foodstuffs (worth about £75 million) and other commodities grown purely for local consumption is added, it becomes obvious that agriculture makes a very great contribution to the national economy.

A great variety of crops is produced, and important differences may be noticed from one part of the country to another due largely to variations in climate and soil.

#### 1. Cocoa

Ghana produces about one third of the world's supply of cocoa. Some 300,000 small farmers on farms seldom exceeding

6 acres each grow almost the entire crop. Their efforts are supplemented by a largely seasonal labor force of about 250,000 workers.

Sales of Ghana's cocoa are under the control of the Ghana Cocoa Marketing Board. It purchases all cocoa produced at a fixed minimum price. Through its subsidiary, Ghana Cocoa Marketing Co., Ltd., sales are made in the world market. The objective of the Board is to give the farmer greater stability of prices by maintaining a fixed minimum price to him for the season and thereby off-setting for him the violent fluctuations in world prices from season to season. In good years the Board builds up substantial reserve funds which are used as a stabilization fund for bad years. It also makes expenditures on cocoa research and other projects helpful to the cocoa producer. This fund amounted to £44,893,075 on September 30, 1957. The principal purchasers of Ghana's cocoa are West Germany, the United States, the United Kingdom, the Netherlands, and the Soviet Union.

The government has vigorously fought the three diseases which attack Ghana's cocoa trees: akate (an insect known as a capsid), black pod (a fungus), and swollen shoot (a virus carried by the mealybug). Of the three, the latter is by far the most serious; however, cutting out of trees and a system of inspection, plus government grants for proper

replanting, have apparently brought swollen shoot disease under control.

## 2. Other agricultural products

Other important agricultural products in Ghana besides cocoa and the staple food crops are palm oil and palm products, copra and coconut oil, kola nuts, shea nuts and shea butter, coffee, limes, and bananas.

### Fishing

Fishing takes place in almost every part of Ghana, and in total about 40,000 people are engaged in the industry. The industry may be divided into three segments: sea fishing (the most important form with an average annual catch of 20,000 tons of fish); lagoon fishing; and river fishing.

Because of the limited facilities for cold storage, the greater part of the fish caught in all three types of waters is cured before reaching the consumer. Unfortunately, the industry is organized very inefficiently with many middlemen in the distribution channel between the fishermen and the ultimate consumers. This tends to make the fish unnecessarily expensive for the local consumer. As a consequence, large quantities of cheap fish are imported into the country. In 1954, for example, the imports of tinned and smoked fish from overseas amounted to 10,800 tons at a cost of about £2 million.

## Forestry

The commercial timber of Ghana is located on a closed forest zone of about 30,000 square miles just north of the coastal plain. Commercial forests comprise an estimated 11,500 square miles, about 6,000 of which is forest reserve and about 5,500 of which is unreserved forest.

The timber industry falls into two main categories--log export and sawmilling for both the local and the export markets. The production of veneers is now also firmly established.

Log export, which in an average pre-war year totalled barely 1 million Hoppus feet, amounted to over 19 million Hoppus feet (24.5 million true cubic feet) valued at £5,366,762 in 1957.

Sawmilling, negligible in pre-war days, has continued to expand considerably. In 1945 production was only 745,000 cubic feet. In 1957 exports alone amounted to 7.7 million cubic feet valued at £4,565,900, while some 3.5 million cubic feet were consumed locally.

Veneer and plywood exports have continued to rise, and in 1957 they were as follows:

Plywood, 134,200 cu. ft. valued at £249,458

Veneer, 19,400 cu. ft. valued at £37,352.

Mining

The Geological Survey Department has accomplished a complete preliminary survey of Ghana using simple methods such as inspection of outcrops. This reconnaissance probably represents the best done for a West African territory. However, Ghana's geology is complex, and forest covering plus weathering interferes with the collection of complete data. The Department is at present conducting a geochemical survey and proposes to conduct a geophysical survey also if sufficient funds are available. An aerial survey of the entire country, at the expense of either the International Cooperation Administration of the United States or the Ghana government, is likely to take place in the near future.

1. Gold

Ghana exports about three quarters of a million ounces of gold per year. Approximately 21,200 Africans and 690 Europeans are employed at the gold mines. All gold produced for export is consigned to the United Kingdom.

2. Diamonds

In 1957 diamonds recovered by African diggers averaged 139,000 carats a month, and those recovered by mining companies averaged 121,300 carats per month. Total production is considerably larger than these figures indicate, since a large number of diamonds are smuggled out of the country.

About 75 per cent of the diamonds produced are of industrial grade, suitable for abrasives and drill bits. The remainder are cuttables.

### 3. Manganese

Ghana is one of the largest producers of manganese in the British Commonwealth. Exports of this important alloying agent amounted to 641,343 tons in 1957. African Manganese Company, Ltd., produces all of Ghana's manganese and employs approximately 4,700 Africans and 40 Europeans.

### 4. Bauxite

Ghana is estimated to have deposits of over 200 million tons of this raw material for aluminum. Although a number of deposit sites have been discovered, only one is being worked at the present time. If the Volta River project materializes, other deposits will undoubtedly be worked also. The raw ore is now being exported to the United Kingdom for reduction.

## Manufacturing Industries

Large scale manufacturing industries are virtually non-existent in Ghana. This is due to the absence of some of the essential bases of industrialization such as coal and oil, the lack of skilled manpower, and the limited supplies of capital required for financing such industries. Much of the foreign capital attracted to the country has

been employed for the development, extraction, and initial processing of raw materials, such as cocoa, gold, manganese, diamonds, bauxite and timber. These materials are then exported to the more advanced industrial countries and converted into finished manufactured goods which are, in turn, imported back into Ghana.

There are, however, a large number of small-scale manufacturing industries which meet strictly local needs plus a few larger ones which produce articles both for export and for the domestic market. These include baking, confectionery, the processing of various foodstuffs, furniture and basket making, leather work, the production of bricks, tiles and pottery, the weaving of traditional cloths from local and imported yarns, the widespread conversion of imported textiles and fabrics into clothes, the use of locally produced gold and imported silver by local craftsmen for jewelry and ornaments, and the manufacture of simple iron implements from scrap derived from iron and steel articles originally imported from abroad.

Until recently the only substantial manufacturing industries were those concerned with the assembly of locomotives and railway coaches and with the sawmilling of timber. In the last few years, however, there has been a stronger drive toward industrialization and an increasing number of



new industries have made their appearance or are planned for the future.

One of the most notable of the recently established industries is the plywood processing factory owned by the United Africa Company at Samreboi. This town, situated in a rich timber-producing area, owes its rapid development entirely to the plywood plant and is probably the closest equivalent to an industrial community within Ghana.

Private foreign and local industrial investment is spread over a wide field of activities. A brewery established by Swiss business interests over twenty years ago has an average annual production which fulfills about one third of Ghana's beer requirements. Another company, a subsidiary of the British-American Tobacco Company, has been producing cigarettes from a blend of Virginian and local tobaccos since 1954. Its products are competing on equal terms with imported cigarettes. A subsidiary of a British tire equipment and reconditioning company established in 1955 is steadily expanding the local reconditioning of tires, tubes, and other rubber manufactures. A Coca-Cola plant started production early in 1956 and has since justified expansion. Several establishments exist for the manufacture of other soft drinks. Lebanese capital is heavily invested in the bakery trade and other foreign capital in

the production of terrazo products. A factory for the production of industrial gases has been established by a French company. Private capital has also established enterprises for the manufacture of prefabricated concrete structural elements and the manufacture of metal products for buildings.

In recent years there have been several new industrial plants established by the government-owned Industrial Development Corporation. The nature of these factories and their operating records will be examined in the next chapter.

## CHAPTER IV

### INDUSTRIAL DEVELOPMENT IN GHANA

#### Policy and Administration

In his statements to the National Assembly in 1958, the Prime Minister reiterated the government's policy to encourage private investors to establish new industries in Ghana. He emphasized that the government is determined to expand the industrial capacity of the country and that private capital and technical know-how would be most welcome.

In order to attract and encourage the establishment of new industries in Ghana, both in the private and joint private-government sectors, an Industrial Promotion Division of the Ministry of Trade and Industries has been established. The organization provides for a Commissioner for Industrial Promotion, an industrial engineer, an economist, and an agricultural investment adviser.

In 1958 an Investment Promotions Board was established within the Industrial Promotion Division and was designed to assist private enterprise in its own efforts to establish new industries or plants. The primary functions of the Board are to examine applications for the establishment of new industries and to make recommendations to the Minister of Trade and Industries. The Board is also responsible for coordinating

the activities of other ministries to streamline the administrative procedure necessary to obtain tax relief under the Income Tax Ordinance, priority connections for water, electric power and telephone services, currency permits, exemptions from import duties on raw materials, and permits required for any new industries. It will also be the Board's duty to give assistance in obtaining plant sites, and in consultation with all ministries concerned, to decide on the priorities to be assigned to new industries.

The Chairman of the Board is the Permanent Secretary (Industries) of the Ministry of Trade and Industries. Its members are the Commissioner for Industrial Promotion, the Chairmen of the Industrial Development Corporation and the Agricultural Development Corporation, the Permanent Secretary of the Ministry of Finance, and the Permanent Secretary of the Development Commission.

Development Programs<sup>1</sup>

Prior to the adoption of the First Development Plan in 1951, very little real development had occurred in Ghana since 1926. No development program was possible during the

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<sup>1</sup>Unless otherwise indicated, the information on Ghana's Development Programs is derived from Ghana Second Development Plan: 1959-64 (Accra: the Government Printer).

world-wide depression of the nineteen thirties nor during the forties because of the war and its aftermath of shortages. The First and Consolidation Development Plans, involving an expenditure of £118 millions over a period of eight years, have done a great deal to overcome this long period of stagnation. The main emphasis in the First Plan was on communications, public works, education, and general services. The government considers that the First Plan achieved its objective of providing a sound foundation on which further economic development can be built.

The Second Plan (1959-1964) is aimed at an active program of developing agriculture and industry. The following table illustrates the change in emphasis between the two Plans:

TABLE XI

Expenditures of Ghana Development Plans

	First and Consolidation Plans	Second Plan
	£000	£000
Agriculture & Natural Resources	7,616	24,668
Industry and Trade	5,548	24,533
Electricity	4,440	8,765
Communications	35,955	53,010
Local & Regional Government	6,000	18,852
Education	17,390	27,852
Information & Broadcasting	1,176	2,677
Housing	7,862	17,000
Health, Sanitation, & Water Supplies	15,033	43,650
Police & Prisons	2,953	7,677
Miscellaneous	13,549	13,684
Totals	117,522	242,368

(Source: Ghana Second Development Plan: 1959-1964)

There is approximately £90 million available from Reserves, Cocoa Marketing Board Reserves, and General Revenue for long-term investment.

Projects for immediate implementation total £124,444,000 and in most cases represent half of the particular allocation in all categories. Since £15 million of work is still outstanding from the first two plans, the total required for work to be implemented "immediately" is £139 million.

In addition to the funds required for general development under the Second Plan, £100 million is also allocated to the construction of hydro-electric works, which is treated as a separate financial and administrative entity. The government expects to raise the majority of this capital through international loans. Against a considerable body of expert opinion, the government has taken the stand that it will proceed with the hydroelectric program on the Volta River Project site regardless of the final outcome for the creation of an aluminum smelter for processing the bauxite reserves.

The ambitiousness of the Second Five Year Plan can be readily seen from the fact that the government intends to embark on the Plan, valued at approximately £342 million in total, with available resources of £90 million.

#### Agriculture

Although the agricultural industry is not the main

development area for consideration in this thesis, it seems advisable to treat briefly at least the main objectives of the Plan related to this vital segment of Ghana's economy.

The doubling of the importation of food products since the inception of the First Development Plan has stimulated government planners to give greater consideration to this sphere of activity from the standpoints of both crop cash value and food production. Thus a priority list of action has been drawn up for this phase of the Second Development Program:

1. Raise the cocoa industry yields
2. Establish large rubber and banana operations in the high rainfall area of the southwest corner of Ghana
3. Take steps to develop a modernized cattle industry
4. Raise cereal yields in the northern region
5. Irrigate the Volta flood plain
6. Study and promote the use of fertilizers.

### Industry

The Second Development Plan calls for the promotion of the establishment of not less than six hundred factories of varying size to produce a range of over one hundred different products. Reasons cited by the government for this ambitious program are these:

1. To meet the rapidly growing demand for manufactured

commodities without upsetting the balance of payments by excessive imports.

2. To provide productive employment for the increasing number of young, educated people in urban areas.

3. To capitalize on the successful efforts of the First Development Plan to improve the economy's infrastructure.

4. To contribute toward the badly needed diversification of the economy.

Priority will be given to industrial development in the leading urban areas of Accra, Tema, Takoradi, Kumasi, and Tamale. This is done in order to facilitate the reduction of service costs, e.g., electricity, communications, etc., through concentration of industries.

Obviously, the Ghana government cannot provide all the capital required for promoting industrialization. Government capital, however, can be used effectively to stimulate the flow of private capital or to pioneer in particularly risky projects. Accordingly, the sum of £10,000,000 has been allocated for direct industrial investment by the government in the Plan period. Part of this amount will be for investment in shares or debentures of private enterprises. The remainder will be for investment in projects under the control of the Industrial Development Corporation (IDC).



The Ghana government realizes that the need for detailed examination of each project precludes a listing now of the factories to be built under the Plan during the next five years. Investigations of this sort are the responsibility of the Projects Division of the IDC, the Commissioner for Industrial Promotion, and of the private firms which contemplate making investments.

Among the industries not yet established in Ghana are a number which appear to be sound commercial possibilities on the basis of preliminary investigations of an admittedly superficial nature:

Cotton spinning & weaving	Steelworks
Bleaching, dyeing, & printing textiles	Distilleries
Knitwear	Salt by-products
Tanneries	Paints and pigments
Leather goods	Varnishes and lacquers
Boots and shoes	Pharmaceuticals
Cement	Fertilizers
Glass	Insecticides
Building materials	Cosmetics
Paper & paper products	Rubber products
Domestic hollow ware	Plastic products
Aluminum products	Bamboo products
Metal processing	Coir products
Radio assembly	Pencils
Motorcar assembly	Oil mills
Metal screws	Flour milling
Bottle caps	Canneries
Starch	Fish products

### Investment Climate

The government has attempted to create a favorable investment climate by adopting the following policies:

### Pioneer Company Relief

Under the Income Tax Ordinance provision is made for an industry which is not being carried out on a scale adequate for the economy's needs and for which there appears to be favorable prospects for future development to be a "pioneer industry."

Pioneer Companies Relief originally consisted of exemption from tax on profits for a maximum period of five years. However, as a result of recommendations made by a UN technical expert, this relief was made more liberal. Now, pioneer companies are not granted tax relief for any specific period. Instead they are granted tax relief until such time as they have recovered their initial investment in full.

### Tariff Rebates on Industrial Raw Materials

Although industrial machinery has been exempted from payment of customs import duty for some years, legislation has recently been enacted which declares a wide variety of industrial raw materials to be duty free.

### Industrial Estates

To give positive help to industrialists in the acquisition of land for their projects, the government has plans for developing sites outside the main urban centers. Public utilities and sites will be made available for lease to industrialists at agreed rentals. It is not specified as to

whether such agreements can be on a long-term basis.

#### Assurances of Fair Treatment to Foreign Capital

Foreign firms are permitted to pay dividends and to repatriate capital in foreign exchange without restriction. The government has stated that it has no intention of nationalizing industries. In any case if property is expropriated, payment of adequate compensation is guaranteed by constitutional provision. The Ghana government has also signed an agreement with the United States government guaranteeing the rights of American investors in Ghana. It is willing to sign similar agreements with any other country.

#### Volta River Project

One drawback to industrial expansion in Ghana is the lack of electric power. The major electrification project, also the most ambitious development project, is the Volta River Project. Briefly, the project originally involved building a dam and hydro-electric power station at Ajena on the Volta. This would provide electricity for a large-scale aluminum industry and other purposes. Local bauxite from a vast deposit 200 miles away would be used to feed an aluminum smelter with an annual capacity of 210,000 tons. In addition, the huge artificial lake of over 3,000 square miles resulting would open new possibilities for fisheries

and inland water transport as well as provide water for irrigation in the Accra plains.

The original Jackson Commission reported that the scheme would take eight years to complete and would cost £150 million, although subsequent estimates have risen as high as £309 million.

In 1958 arrangements were made to carry out a reassessment survey of the Volta River project. The survey was conducted by the Kaiser Engineering Company to up-date and revise the Report of the Preparatory Commission for the Volta River Project, which was prepared in 1956. The Kaiser Report, published in April, 1959, contained a review with preliminary plans and estimates for the complete development of the Volta River's hydroelectric potential.

This report contained a number of startling and encouraging conclusions and recommendations:<sup>2</sup>

1. The estimated capital cost of the dam and power station were substantially lower than that contained in the previous report.
2. Similarly, the cost of power to the smelter was significantly lower.
3. Surplus power available to Ghana could be increased 2½ times over the original estimate at these reduced costs.
4. It was recommended that the dam be built at Akosombo instead of Ajena. Estimated construction time was

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<sup>2</sup>  
E. R. Rado, "The Volta River Project--Retrospect and Prospect," The Economic Bulletin, 4:11-20, February, 1960.

5½ years instead of the 7-8 originally proposed (excluding the irrigation project).

As to the present status of the Project, the Ghana government has accepted the recommendations of the Kaiser Report to site the dam at Akosombo, and it has decided to change the site of the smelter from Kpong to Tema. The government has also decided to proceed with constructing the approaches to the dam site and preparing the site for the commencement of construction work. This preliminary work is now under way under supervision of Kaiser Engineering and is expected to be completed by 1961. Kaiser has also been asked to go ahead with the preparation of detailed plans for the dam and power station, and these should be completed by October, 1960.

The International Bank for Reconstruction and Development, a source from which the Ghana government stands a reasonable chance to borrow for the dam, is somewhat skeptical of the economics of the project and is still investigating certain phases of it. It must be convinced not only that the project will pay for itself in a reasonable length of time, but also that over the repayment period, the Ghana government will have sufficient budget surpluses to make the necessary amortization payments.

Considerable progress has also been made by the aluminum companies with regard to this project. As a result of

the favorable conclusions of the Kaiser Report and of the recovery of world demand for aluminum, a prospective consortium comprised of the major North American and British aluminum companies has been formed. The Ghana government has announced that these firms will soon form a company with the purpose of negotiating with Ghana on terms and conditions of establishing the smelter at Tema.

The probable outcome of this project is still in question. One formidable problem faced by the Ghana government is the financing for the £55 million dam and power installation. It has been stated repeatedly in the past by the Prime Minister that Ghana will finance the dam by her own resources if international loans are not obtained. Such a move would amount to an expenditure equivalent to nearly half of the expected government capital outlays during the Second Development Plan and would, of course, require drastic reductions in that program.

#### Government Development Corporations

In addition to an Investment Promotion Board, created in September, 1958, to assist private enterprise in getting started in Ghana, the following four development corporations have been established to promote commercial projects by active participation with capital and personnel:

### Industrial Development Corporation (IDC)

At the present time, the largest portion of government investment in industry is made through this corporation to encourage the establishment of new industrial enterprises and the expansion of existing ones by financial and technical assistance.

The operations and the performance record of this corporation will be discussed in detail below.

### Agricultural Development Corporation (ADC)

This corporation has a basic function in the agricultural and fisheries sectors of the economy, as does the IDC in the industrial sector.

Past operating errors and inefficiencies necessitated a general re-organization of this group in 1958. Its prescribed duties are these:

1. To carry out investigations and experiments for developing Ghana's agricultural and fishing industries
2. To formulate and execute projects for developing agricultural and fishing industries
3. To handle the purchasing, grading, and processing of produce as well as the sale and export of produce.

The statute creating the ADC prohibits export of "scheduled products" except by a licensed buying agent acting on behalf of the ADC or by any other person duly authorized.

### Ghana Holding Corporation

This corporation was created to assume the minority interests in operating corporations now held by the development corporations and also to purchase shares in other Ghana corporations. The government also hopes that this corporation will aid in the development of a public market for securities of Ghana corporations.

### Tema Development Corporation

This area development corporation is essentially building a new city for a population of 40,000 to complement the new Tema Harbor. An area of 927 acres has been set aside for industrial sites; 270 acres already have had installation of roads, sewers, water, and electricity. It is expected that this corporation will break even or possibly make a small profit on the venture.

### Ghanaian Development Bank (Industrial Development Corporation)<sup>3</sup>

#### Policy and Scope

The Industrial Development Corporation is charged with the task of promoting and assisting with the development of industry in Ghana. It was created by statute in 1951 and

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<sup>3</sup>Unless otherwise indicated, factual data on the Industrial Development Corporation presented in this section was derived from the last two annual reports of the Corporation covering the fiscal years 1957-58 and 1958-59 (preliminary draft study).



is now authorized to obtain advances from the government up to a limit of £8 million.

In carrying out its policy for the promotion of industries, the Corporation considers its investments to fall into two categories based on its degree of participation:

1. Subsidiary companies

These are defined as new industrial undertakings in which the Corporation supplies either all or a majority of the capital and assumes complete managerial control.

2. Associated companies

These are defined as new industrial undertakings in which the Corporation participates by entering into joint agreements with firms of proved business capacity and financial standing.

In carrying out its other objective, i.e., assistance in the development of existing industry, the Corporation takes the following measures:

1. Associated companies' expansion

It enters into agreements for the expansion of existing industrial enterprises with firms of proved business capacity and financial standing.

2. Loans to companies

It provides machinery, etc. on credit terms to assist

smaller industrial concerns. Such firms must, however, be properly incorporated to be eligible.

3. Small loans

It makes loans from a special fund to small industrial concerns not incorporated as companies. The total amount of each individual loan is limited, adequate security must be given, and a reasonable rate of interest is charged.

For the benefit of prospective industrialists, the Corporation has explicitly outlined the policy that proposals for new enterprises must not only appear commercially sound but also fulfill one or more of the following conditions:

1. The industry or business is a new one in Ghana

2. It is ancillary or complimentary to the general development program of the government

3. It develops or is connected with the processing of indigenous raw materials

4. It offers special opportunities for the training of Africans in the art of management.

The Corporation consists of a Chairman and six members.

Financial Position

The balance sheet of the Corporation appears as Exhibit 1 in Appendix B. Total assets as of June 30, 1958 totaled £3,353,651 of which £2,230,696 represented investments at cost, less depreciation.

The Corporation's investments at cost shown in this statement as totaling £2,755,147 are summarized below as percentages of total investment:

TABLE XII

Percentage Breakdown of Total IDC Investment

	<u>Per Cent of the Total Investments at Cost</u>
<u>Subsidiary Companies</u>	
Shares	37.7
Loans	3.6
Advances	11.9
Total	<u>53.2</u>
<u>Associated Companies</u>	
Shares	13.7
Loans	13.4
Advances	2.7
Total	<u>29.8</u>
<u>Small Loans &amp; Other Investments</u>	
Total	<u>17.0</u>
Grand Total	100.0

(Source: Calculated from data in "I. D. C. Report and Accounts, 1957-58," p. 30)

A breakdown of the total investment (at cost, less depreciation) of £2,230,696 is given below:

(See table following page)

TABLE XIII

Breakdown of Total IDC Investment  
(at cost, less depreciation)  
(LG)

Subsidiary Companies

Shares	805,538	
Loans	101,400	
Advances	285,897	
		1,192,835

Associated & Other Companies

Shares	270,200	
Loans	360,000	
Advances	65,182	
		695,382

Small & Development Loans 133,173

Projects 209,306  
LG2,230,696

(Source: "I. D. C. Report and Accounts," 1957-58,  
p. 30)

The income statement for the year July 1, 1957, to June 30, 1958, is shown as Exhibit 2 in Appendix B. A loss of £31,004 was incurred with income from all sources amounting to slightly more than the total salaries and wages of the staff.

Equity Investment Holdings

As of March 31, 1959, the Industrial Development Corporation's equity participation in local enterprises was as follows:

TABLE XIV

IDC Equity Participation by Type of Company

<u>Type of Company</u>	<u>No. of Companies</u>
<b>Subsidiary Companies</b>	
Wholly owned and managed by IDC	18
Majority owned and managed by IDC	3
<b>Associated Companies</b>	
Managed by overseas participation	1
With majority investment by IDC	1
With equal or minority investment by IDC	8
Managed by local participants	
With majority investment by IDC	-
With equal or minority investment by IDC	<u>1</u>
Total	31

## Analysis of the Performance of Subsidiary Companies

Table XV\* is a summary of seventeen subsidiary companies giving name, product line, start-up date, number of employees, percentage equity held by IDC, total IDC investment, profit and loss record for fiscal years 1958 and 1959, ending March 31, reasons for losses, and probable future outlook. It is recognized by the author that conclusions based strictly on published annual reports are open to question; however, it is felt that most conclusions would be reinforced by on-the-spot investigation rather than invalidated. In this regard, it should be emphasized that a great deal more operating

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\* See Exhibit 1 in Appendix C

detail is presented in the IDC documents than in a typical American corporation's report.

Four of the seventeen companies shown had profitable operations in the fiscal year 1959. Of the other thirteen unprofitable concerns, only one (IDC Furniture and Joinery, Limited) had made a profit in one of the two preceding years. Three of the thirteen are not conducting business at all. This fact, per se, i.e., unprofitable current operations, is not too alarming in view of the normal difficulty for many businesses to show a profit in comparable periods of early growth. However, the future outlook for these same companies is not conducive to a reversal in their earnings trend. Specifically, only one of the thirteen incurring losses has a distinctly favorable outlook--Ghana Hotels Company, Ltd. In fact, one of the profitable firms (West African Pictures, Ltd.) has an unfavorable outlook unless certain drastic operating changes are made. In summary, there is a net number of four enterprises (three of which are currently profitable) out of a total of seventeen that appear to have a good probability for growth and profitable operation.

Analysis of the reasons cited for unprofitable operations by the ten companies trading reveals essentially five areas of difficulty:

1. Inadequate market information

The problems of at least four concerns are directly attributable to incorrect evaluations of potential demand. Undoubtedly, other firms having difficulty are being hampered indirectly by this deficiency also.

2. Availability of raw materials

One firm's problems are directly traceable to a failure in determining the availability of suitable raw materials.

3. Poor quality of product

Two concerns are virtually unable to make any commercial sales simply because they are simply unable to make a product that is competitive with imports. This is undoubtedly due, in part, to inadequate quality control procedures; however, the main reason appears to be an inability to make the product with available raw materials and technical know-how.

4. Lack of proper cost control

At least two companies are in poor financial condition because of obvious deficiencies in cost control procedures. For example, it is inconceivable that a firm having a proper cost control system would find itself suddenly in the embarrassing position of the Nkawkaw Sawmills with tremendous losses in cash and physical inventories.

5. Poor employee relations

At least one firm is employing an "excessively large

labor force" due to the strength and belligerence of the local union.

The most unfortunate aspect of these areas of deficiency is that at least the first three should have been revealed by investigation before the enterprises were established. Obviously, the Industrial Development Corporation did not conduct the comprehensive feasibility studies that are so vital to selecting a new enterprise with a good probability for commercial success. The Corporation now finds itself in the embarrassing position of "throwing good money after bad" trying to make these firms profitable.

Analysis of the Performance of Associated and Other Companies

A summary of the IDC "Associated and Other Companies" appears in Table XVI.\* Little information of the profitability of these ventures is given in the two IDC Annual Reports studied. This may be due to the reluctance of the private companies involved to disclose the results of their operations. It is also suspected that no mention of profitability in the reports is tantamount to an incurred loss.

In fiscal 1958 four firms out of a total of eight in operation were reported to have made profits. However, two of these have questionable future prospects for continued profits. Three incurred losses and no information is available on the remaining one. One firm out of eight was reported

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\* See Exhibit 2 in Appendix C



to have been profitable in fiscal 1959 and one incurred a loss. No data was available on the remaining six; however, textual comments on the operation of at least three of these six implied unprofitable operations. Thus, roughly half of the total number of Associated and Other Companies were profitable in each of the last two years.

It is the feeling of the Corporation that this type of participation should be successful since the outside participants are responsible for the successful management of the companies and should take whatever measures required to assure profitable operation. Also, such participants often have technical and managerial skills which should increase the chances for success of these enterprises.

Unfortunately, reliance on outside participant-managers is not a panacea, as evidenced by the fact that only 50 per cent of Associated Companies are profitable. An examination of the main factors, which either contributed to past losses or cloud the future outlook, reveals that the unprofitable ventures were not selected wisely at the outset. Factors such as insufficient demand, uneconomic plant location, and fluctuating supplies and prices of raw materials should have been detected in an initial appraisal of the project. It is the IDC's responsibility to conduct a careful, objective feasibility study on each proposal regardless of the nature of participation by private firms.

Loans

The scope of lending activities to small Ghanaian business can be seen from Exhibit 3 in Appendix B, which is a summary of small loans made in 1958.

New Projects

The Corporation was restricted considerably in its activities during the fiscal year of 1958 because of the temporary postponement of the Second Development Plan.

However, the Plan was officially commenced on July 1, 1959, and restrictions on IDC expenditures were eased to enable it to play a vital role in the over-all program.

Government approval was obtained for the following projects:

Paint Factory	(Tema)
Paper Conversion Factory	(Sekondi)
Distillery	(Accra)
Oil Mill	(Esiama)
Motel	(Accra)

Evaluation of the IDC's Activities

The IDC has received a great deal of criticism for its investments on the following counts:

1. Projects are usually small
2. They are often irrelevant to any basic economic development goal
3. They are often unsuccessful as business enterprises

4. They are occasionally involved in segments of the economy in which non-governmental businessmen are its competitors or could supplant it

5. They are sometimes continued after the IDC has completed its developmental purpose instead of being sold and the proceeds used for development rather than administration.

When applied to many of the projects, these points of criticism are probably valid.

One counter-argument raised to the third point is that an unprofitable venture per se should not be taken as evidence of bad performance because the high risk of unprofitability is one chief reason why such a project is likely to be undertaken by government corporations rather than a profit-motivated private firm. The author feels that this is an extremely dangerous attitude for the IDC or any like development bank to adopt.

The goal of any development bank similar to the IDC should be the successful selection and promotion of new ventures that are commercially sound. "Commercially sound" implies an estimated degree of profitability at some future date. It is the responsibility of the bank to the economy to bring only those ventures into existence which will make a net positive contribution after a reasonable growth period. Any other type of enterprise is a drain on the economy's resources and

must be avoided if at all possible.

It is the author's opinion that the IDC can and should vastly improve its capability to select and promote the best projects for Ghana. This will require, first, a basic change in attitude, involving the desirability of profitable enterprises which truly "fit" the economy; and secondly, a greater degree of sophistication in technical and commercial research techniques.

Attainment of these requirements would be expedited greatly by the presence of a skilled technical-economic researcher on the Corporation's staff. Such an individual should have had extensive experience conducting feasibility studies in various foreign environments, including Ghana, if possible. He would be of inestimable value in a number of ways: in the screening of project proposals by preliminary investigation; in mobilizing technical resources to conduct detailed feasibility studies on the most promising ventures; and, in the training of the other staff members in the concepts of commercial research.

This critical area, selection of commercially sound projects, must be given immediate and expert attention if the IDC is to realize its true potential as a catalyst for economic growth in Ghana.

## CHAPTER V

### AN EXPERIMENT IN INDUSTRIALIZATION FOR WEST AFRICA

Early in 1959 the West Africa Program of the Rockefeller Brothers Fund started operations in Ghana and Nigeria. The purpose of this unique program is to provide practically oriented technical assistance for economic development projects in these West African countries.

The feasibility study is the vehicle by which this assistance is offered. These studies are detailed evaluations of those ventures which have promise of promoting economic growth and broadening the economic base of the country concerned. They are conducted at the request of local interested parties by qualified technical experts retained by the Fund.

The end-product of each study is a report which is designed to present in a lucid and unbiased manner that information normally required by a sophisticated investor. Data on market potentials, capital requirements, costs, and anticipated profits are considered essential features of each report.

The program also provides experts to aid in organizing and training local technicians for new projects which have reached the operating stage.

## Objectives of the Program

The program has three specific objectives which are directly related to its over-all goal of assisting economic growth:<sup>1</sup>

1. To evaluate objectively potential industrial projects as to economic soundness
2. To attract investment capital by providing adequate information on potential ventures
3. To develop sufficient economic data to permit realistic and effective long-range economic planning.

Feasibility studies of proposed projects, conducted by knowledgeable experts, offer a sound approach to carrying out the first objective. They are, in fact, specifically designed to accomplish that which is desired in this situation.

The value of feasibility studies as a "sales tool" in attracting potential investors is not quite so obvious. Generally, the sophisticated investor will tend to avoid those ventures on which inadequate information is available. Conversely, he will tend to be receptive to those opportunities which have been studied by unbiased, competent third parties. The feasibility study, by its very nature, has a definite appeal to this type of investor--the most desirable type in

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<sup>1</sup>Personal interview with Mr. Stacey May, Managing Director of the West Africa Program, Rockefeller Brothers Fund.

in the long run. This is not to say that he will be immediately persuaded to invest in a venture on the strength of an expertly conducted feasibility study. There is, however, a better chance of convincing him to spend his own time and money to investigate the opportunity more fully to determine its true potential value to him if he is provided with a feasibility report.

The third objective is a vitally important one for the longer-term economic welfare of these countries. As the director of the program indicated, Nigeria and Ghana are unique in their being almost totally lacking in that economic data normally taken for granted by planning groups in more advanced countries. This opinion was expressed, in fact, against a background of experience with development plans in other lesser developed countries as well, e.g., Costa Rica and Ecuador. Assuming feasibility studies are continued over a period of time, economic data will necessarily result as a by-product of the Program's activities.

#### Method of Operation

The West Africa Program itself has a modest-sized professional staff--a Director located in New York City, a Resident Manager in West Africa, with an assistant to share the field work. Their efforts, however, are multiplied many-

fold by their function as coordinators and mobilizers of technical manpower resources throughout the world. One of their most essential tasks, once having been requested to give technical assistance on a proposed project, is to find and supply the most knowledgeable technicians available for studying that problem. Arrangements are made for the technical experts to visit the country involved for on-the-spot investigations varying in length depending upon the specific nature of the project. Following these field studies, the team writes a report summarizing their findings from the feasibility study.

This report is then published by the Rockefeller Brothers Fund and is made available to the parties originally requesting the assistance. As a matter of fact, this report is then considered to be in the public domain by the Fund. The Fund, by its very nature, (non-profit, philanthropic institution) cannot take any proprietary interest in the venture nor restrict the circulation of the reports to favor any one group.

In addition to organizing and coordinating teams of technical experts for making feasibility studies, the Fund also provides technical assistance in organizing and training local technicians to start and operate a venture when this stage is reached. For example, the Fund has provided



the services of two experts to instruct Ghanaians in the proper use of a new method for producing inexpensive bricks and tiles.

Analysis of a Typical Feasibility Study

In an effort to better understand and evaluate the value of the feasibility study, the author examined the following reports published by the Fund:

Technical and Economic Feasibility of a Structural Clay Tile Plant for Western Nigeria

Report on Nigerian Housing Project

Investigation of the Feasibility of Glass Production in Nigeria

Pakro Dam Project Report

Economic Feasibility of a Meat Industry in Northern Nigeria

Economic Feasibility of a Poultry Breeding Farm in Ghana.

For purposes of this thesis, the author has chosen to consider the first report listed above in some detail.<sup>2</sup>

This seems appropriate, since the venture is one of an

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<sup>2</sup>Technical and Economic Feasibility of a Structural Clay Tile Plant for Western Nigeria. West Africa Program, Rockefeller Brothers Fund.

industrial nature rather than a public or agricultural one. Also, the study on the tile plant illustrates vividly the problems faced by the investigator in such a country as Nigeria. Additionally, it is felt that a detailed treatment of one specific study is more revealing than broad generalizations on the nature of feasibility studies.

#### Table of Contents

The Table of Contents of this report is shown below to illustrate the broad scope of the study and also to serve as a guide for analysis.

#### TABLE OF CONTENTS

##### Section

- I. Introduction
- II. Summary and Conclusions
- III. Clay Situation
- IV. Market Situation
- V. Economics of Tile Plant
  - Plant Location
  - Production Process
  - Material Balance
  - Production Economics
  - Investment Climate

## Introduction

This section of the report accomplishes the following in providing background information:

1. Describes briefly the general economic climate of Nigeria for industrial development projects.
2. Explains how and by whom the project was conceived and the steps taken by the Fund to initiate the study (which was actually conducted by the Stanford Research Institute).
3. Defines the technical and economic parameters of the study, e.g., only known local deposits of clay were considered as potential raw materials.
4. Identifies all cooperating local government and private agencies.

## Summary and Conclusions

This section, the end-product of the entire study, is reproduced in full below because it reveals both the methodology employed as well as the type of information normally considered essential by any sophisticated investor.

Four known deposits of clay within a 35-mile radius of Lagos were considered for possible exploitation as raw material sources for clay tile production. Laboratory testing was performed on representative samples from these deposits to determine their suitability for use, and selection was made of a clay mixture which should give a quality product. Preliminary estimates were made of the cost of constructing and operating a hollow clay tile plant using the clay mixture and producing a volume of blocks estimated as

being marketable in the Lagos area. Consideration was given to the basic economic factors bearing upon such an enterprise, and profitability was determined under these conditions.

The findings appear encouraging and are as follows:

A sizeable potential demand for structural clay tiles exists in the construction industry in and around Lagos, Nigeria, and there is no production of these blocks in the area.

Blends of clays obtainable from large deposits in the Lagos vicinity are suitable for use as raw materials for structural clay tile production.

Construction near Papa Alanto of a modern plant for the annual production of 33,000 tons of hollow clay building blocks would require about \$542,000 capital. Assuming that fuel consumption of 6 tons fuel/100 tons fired tiles would be realized and that these blocks would be sold at the same unit price as hollow concrete blocks of the same size, a profit of about 19% per year after taxes is indicated for full operations, with special tax exemption during early years of operation allowing a significantly greater profit.

Originators of this scheme are prepared to furnish perhaps \$50,000 capital.

The initiation and success of the envisioned tile scheme would be contingent upon the availability of substantial outside financial participation and upon the active participation of a technical partner who has background in an operation of this type.

Investment climate in Nigeria appears favorable for foreign participation in the proposed scheme, with Nigerian Government sanction of repatriation of capital and profits as well as guarantees against expropriation without compensation. Minority financial participation or the loan of developmental funds by the regional government to this scheme is probable.

Negotiations must be carried out to assure the availability under reasonable conditions of clay from the deposits found suitable for exploitation.

### Clay Situation

This section is concerned with the testing of the four local deposits of clay for suitability as raw material for the tiles. Details of the testing procedure, criteria used for comparison of the deposits, and graphical representations of the test results are included here.

Interestingly, the clay raw material most suitable for use was actually found to be a mixture (of specified definite proportions) prepared from two of the four deposits.

### Market Situation

This section clearly illustrates the difficulties that a survey team can encounter in an underdeveloped country having a dearth of statistical data. The precise figure desired for purposes of this feasibility study was the potential market in the Lagos area for clay tiles, expressed in terms of tiles consumed per day by the builders in that area. The following obstacles to developing this data quickly became apparent:

1. Clay tiles had never been produced nor used in the Lagos area.

2. Furthermore, there was no reliable data on the number of cement blocks (considered to be an analogous and directly competitive product to clay tiles) consumed in the area.

Commercial cement block statistics were not made public, and additionally, a significant proportion of total block production was accounted for by small builders at on-site locations.

3. Finally, figures on cement consumption by application and area were not available although the total consumption in Nigeria was known (of which building blocks were thought to be a significant factor).

4. Interviews with Lagos builders failed to provide specific estimates with the common answer being "many thousand cement blocks per day."

In the face of these very considerable handicaps, the study group was forced to perform "exercises" (calculations) employing figures on building values, average cost per ton of cement consumed, and estimates of that portion of total cement in an average building used in the blocks. These calculations indicated that the Lagos area might easily consume 5,000 to 10,000 blocks of various sizes daily. Admittedly these calculations are not precise; however, the probability is high that the consumption rate falls within this range. This latter fact certainly represents tremendous improvement over the previous total absence of statistics. As the project progresses, the data will undoubtedly be refined, but at least, the approximate range developed represents a valuable initial reference point.

It was concluded by the team that an output of 5,000 9" x 9" x 18" clay tiles per day could be easily absorbed by the Lagos market--particularly if a sizeable captive market in the form of one of the large builders could be obtained. This probably could be accomplished by encouraging financial participation in the tile plant or by negotiating a long-term contract with special price considerations.

This conclusion was further confirmed by the favorable opinion of local architects who were interviewed because of their vital role in specifying building materials to be used in major construction projects. Some of their specific reasons for endorsing the essentially untested tiles are interesting and encouraging:

1. Clay tiles are lighter than cement blocks of equivalent size and usage would effect a reduction in total building costs.

2. Masons would be capable of setting a greater number of tiles with the same expenditure of effort.

3. Their lower coefficient of expansion (relative to cement blocks) reduces the tendency of walls to develop cracks.

4. Their moisture absorption is lower than cement blocks.

5. Additional construction material would allow architects more latitude in design, due to the variety of shapes

and sizes that may be produced.

This qualitative confirmation of the previously derived quantitative estimates indicates an attractive market opportunity for clay tiles in the Lagos area.

The determination of a probable selling price for these tiles was complicated by the fact that such items had not previously been sold in Nigeria. The reasonable assumption was made, however, that they could be sold in volume for at least the price of the directly competitive product (cement blocks) which sell for an average price of 29.75 cents per 9" x 9" x 18" block delivered at a Lagos building site.

Converting both market potential and price estimates to tonnage and yearly bases, the 5,000 tiles per day is equivalent to 33,000 tons per year, and the 29.75 cents per tile price is equivalent to a selling price of \$15.65 per ton.

#### Economics of Tile Plant

The following major assumptions were made to permit determination of plant economics:

1. A market for 33,000 tons of tiles per year can be developed in Lagos or vicinity and a delivered price of \$15.65 per ton can be obtained for 9" x 9" x 18" sized tiles.
2. Clay deposits located at Papa Alanto and Iju will be available at reasonable cost.
3. A plant site at Papa Alanto will be available at a reasonable cost.



4. A fuel consumption of 6 tons of oil per 100 tons of fired tile will be realized.

Additionally, it was stated that economic calculations were also based upon experience available from industrial operations in Nigeria and upon experimental work performed on the clays proposed for use.

It was pointed out that the plant, as designed using the known clay supplies, could be used effectively to produce a wide range of types and sizes of clay products other than tiles. For example, common bricks, roofing tiles, flat tiles, and clay pipe could be manufactured with small additional amounts of capital equipment.

It was advised, however, that the initial product line be restricted to tiles, since this is a relatively simple item to manufacture and is demanded in large volume. Expansion into related, more complex products should be deferred until production and sales of the initial item are proceeding smoothly.

Plant location - It was concluded that a plant location in the Papa Alanto area would be most economical on the basis of transportation costs associated with clay and finished product movements. The conclusion stemmed from the technical finding that the optimum raw material mixture was comprised of 75 per cent Papa Alanto clay and 25 per cent Iju clay.

Production process - Included in this section is a flow chart showing all process steps for the suggested plant as well as a detailed description of each operation and major piece of equipment.

Material balance - A conventional material balance is indicated for each process step.

Production economics - The following equipment costs were based on the prices generally quoted in the United States. It was recognized by the survey team that comparable equipment would be available from European sources at lower prices; however, it was assumed that the transportation costs involved would raise the delivered price to the general level of those encountered in the United States. There is no import duty on production machinery in Nigeria.

(See following page for Estimated Capital Investment for Tile Plant)

Estimated Capital Investment for Tile Plant

Fixed Capital

Land (excluding clay deposit)	\$ 5,000	
Buildings	50,000	
Mining equipment	50,000	
Production equipment	130,000	
Kiln	150,000	
Trucks	67,000	
Office equipment	2,000	
Miscellaneous equipment	25,000	
	-----	\$479,000

Working Capital

30 days of all operating costs	25,000	
30 days of accounts receivable	38,000	
	-----	63,000

Total	-----	\$542,000
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(Note: Detailed calculations for each item appear in appendix of report.)

Estimated operating cost - The following operating costs were calculated on the basis of local conditions in Nigeria:

(See following page for Estimated Annual Operating Cost of Tile Plant)

Estimated Annual Operating Cost of Tile Plant

Clay	\$ 56,000
Furnace oil	65,000
Direct labor and supervision	30,000
Indirect labor	15,000
Utilities	31,000
Insurance	4,000
Maintenance materials	3,000
Depreciation	40,000
Interest, 8 per cent	43,000
Total	<hr/> \$ 287,000

Estimated profitability - It was recognized that the costs of oil and clay, both significant factors, are subject to considerable variances which might, in turn, affect the profitability significantly.

(See following page for Estimated Profitability of Tile Plant.)

Estimated Profitability of Tile Plant

Sales

Gross sales	\$ 520,000	
Selling expenses	61,000	
Net sales		\$ 459,000
Operating cost		287,000
Profit, before taxes		\$ 172,000
Taxes, 40 per cent		69,000
Profit, after taxes		\$ 103,000
Return on investment		19 per cent

Investment Climate

The survey team reported that it is the policy of the Nigerian government to encourage private investment ventures; however, it will participate financially if requested to do so and the industry is considered a desirable one.

Foreign capital is welcome and is granted practically the same status as domestic investment. Constitutional guarantees exist against expropriation or nationalization without adequate compensation. It is the declared intent of the government not to nationalize any existing private enterprise. Non-resident investors may withdraw profits and capital without restriction.

The corporate income tax rate has been decreased to 40 per cent. An important tax consideration is the fact that

certain companies are eligible for "Pioneer Industry" status. Tax relief to enterprises in this category is substantial-- a waiver of all corporate income tax for a period up to five years. To qualify for this status, a company must be a public company registered in Nigeria and be engaged in an industry not now being carried on at a scale sufficient to meet the need of the country. While clay tile production is not on the published list of eligible companies, it was felt by the team that such a status would be forthcoming if requested.

#### Summary

It is apparent from the above description of this feasibility study that any such report would be of inestimable aid to any potential investor--government or private. It also seems equally obvious that this type of detailed, practical, integrated study cannot result from any perfunctory efforts by individuals of average competence. It can only be produced by ingenious highly skilled experts studying the problem "on-the-spot" in context with the prevailing economic, social, political, and cultural factors.

An analysis of the Fund's reports revealed a basic pattern of methodology applicable to any industrial feasibility study. This approach can be considered in terms of a "check-list" of essential considerations. The sequence of action

steps will usually correspond roughly to that shown below:

#### Checklist for Feasibility Study

1. Study the economic, political, and social characteristics of the country.

This background information is essential to lend the proper perspective to any feasibility study. Naturally, a researcher in a country on a "one-shot" project has limited time; however, he should be fully aware of the need to incorporate these considerations in his analysis as required.

The intensity of treatment accorded this area in the actual report will vary with the needs of the project. For example, the feasibility report done for the Fund on the glass plant in Nigeria contained three volumes--one devoted exclusively to background information on the country. In contrast, the report on the tile plant contained only a few paragraphs of such information.

2. Determine the availability of essential raw materials, power, and skilled manpower resources.

If it is discovered at an early stage that the above factors are in wholly inadequate supply, there is little value in continuing with the study.

3. Estimate the market potential and probable selling price for the finished product.

In the author's opinion, this is the key step in the entire study. Unfortunately, it is probably given the least attention in the evaluation of most new enterprises by government, development banks, and private entrepreneurs in the less developed countries. Possible reasons for this situation include lack of appreciation for the value of market data, unfamiliarity with market research methods, or the discouragement of market research by inadequate statistical data. Regardless of the reason, the importance of developing reliable market information is inescapable. Without knowing how much of a product the market can reasonably be expected to absorb, further work on a project is meaningless. For example, the scale of the plant is one of the more important decisions that depends to a great extent on the market potential estimate.

The ingenuity exercised by the survey team on the tile plant feasibility study is illustrative of the type of market research required in underdeveloped countries to arrive at some point of reference regarding the size of market. The estimate so derived probably will not be exactly correct in retrospect, but it has tremendous value as a starting point.

4. Prepare process flow charts and material balances
5. Estimate the land, equipment, and labor requirements for a plant sized by considering the market potential (assuming



a plant of at least minimum economic size is indicated).

6. Estimate the capital investment required for the plant.

7. Estimate the annual operating cost.

8. Prepare pro forma financial statements--profit and loss statement, and balance sheet.

If such estimates would be meaningful, it may be advisable to prepare financial forecasts for the next five years.

9. Determine the investment climate of the country involved.

10. Prepare report integrating all information developed in previous steps to permit an over-all appraisal of its suitability as an investment opportunity.

The above steps should be considered the minimum program for a thorough evaluation of a proposed project by a development bank. Following it will not guarantee the bank that all its investments will be profitable. However, it should eliminate the worst possibilities, point out the best, and give some aid in choosing those marginally attractive ventures with the best probability of success.

#### Evaluation of Program as an Aid to Economic Development

Before attempting to evaluate this program, the present status of the six projects on which reports have been published will be reviewed.

1. Meat processing plant (Nigeria)

The outlook for the establishment of this plant is favorable, although financing arrangements have not been completed.

2. Low-cost housing project (Nigeria)

Some funds have been committed; however, additional participation from other financial groups is being solicited.

3. Clay tile plant (Nigeria)

Financing has not been arranged as yet.

4. Glass factory (Nigeria)

Complete financing has not been worked out, although one group has agreed to a specified amount of equity participation.

5. Pakro Dam and Reservoir (Ghana)

This project is designed to provide an adequate water supply to the capital city of Accra. Recently, the report was formally presented to the Department of Public Works, which approved it and recommended that the government proceed with financing it. The next step consists of the Ministry of Finance providing government funds for the project.

6. Poultry farm (Ghana)

Financing was just recently obtained. Ground has been broken at the plant site, and equipment will be ordered in the very near future.

In summary, the two Ghanaian projects (Pakro Dam and the poultry farm) are progressing well, and their successful establishment now seems assured. The four Nigerian subjects of feasibility studies are all presently hindered by incomplete financing; however, the outlook for their ultimate success is still considered to be favorable.

This record should be viewed with two facts in mind: (1) the program started operations only one-and-a-half years ago, and (2) the financing of new ventures characteristically involves a number of "false starts" before finalization. The results then should be considered promising.

In addition to the above six projects, a feasibility study has been completed (but not published yet) on a plant to manufacture refrigerators in Ghana. Financing has not been completed as yet. A number of other feasibility studies are under consideration including one on a nail factory and another on a lumber sawmill.

The progress made by the West Africa Program is also measurable in terms of the interest it has stimulated both in this country and in West Africa. The Managing Director reported that there is an increasing number of interested parties contacting him in New York to learn more about the program. Promoters, consulting firms, capital equipment manufacturers, and potential investors represent a few of the interests of his callers. Furthermore, he stated that

the local West Africans are showing a great deal of interest and enthusiasm in the Program.

As far as evaluating the Program's value in the economic development of West Africa, the author is in agreement with the Managing Director, who believes that it is simply too early to tell what impact the program will have on the West African economies. The Program has been received well and looks promising. However, any over-all appraisal of its true value in economic development must be deferred until the projects are well-established with records of operating performance.

Regardless of its ultimately proved role in economic development, the author feels strongly that the Fund's program represents one sound approach to solving the basic problem of how best to help the West Africans help themselves.

## CHAPTER VI

## CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The following conclusions were reached on the basis of the information developed in the preceding chapters:

1. Development banks offer an effective vehicle for promoting the industrialization of underdeveloped countries.

The role of this type institution transcends mere financing activities. An effective development bank provides risk-taking initiative, technical and managerial assistance as well as capital if these other resources are in short supply. One critical area requiring expert technical skill is the selection of suitable enterprises for investment. Obviously, the staffing of a development bank must be approached with this need in mind.

Case studies have proven the potential value of these banks in promoting economic growth. They have also pointed out the necessity for close coordination of the banks' activities with the over-all economic program of the country.

2. The economy of Ghana has a significant potential for industrial growth.

Although Ghana is, and will probably remain, a predominantly agricultural economy, it is nevertheless true

that she has a considerable unrealized industrial potential.

The government is ambitious and aggressive with regard to promoting new industrial investment. As a consequence, it has undertaken two formidable economic development plans within the last eight years. Evidently realizing that industrialization is essential for a rapid transition from a tribal to a commercial economy, the government has constantly been striving to improve the investment climate of Ghana.

3. The development bank of Ghana (Industrial Development Corporation) represents a potentially effective mechanism for promoting industrialization in Ghana.

Although its operating record leaves much to be desired, there is little doubt that its existing structure and position in the economy could permit its functioning as a most effective intermediary between governmental financial resources and new enterprise opportunities.

4. The IDC must bolster its capabilities for selecting the best enterprises for the Ghanaian economy.

This problem-area associated with its operations appears to be the most critical one. Not only have many of the IDC companies failed to operate profitably as a result, but they have had little relevance to the country's economic goals.

5. The IDC must take measures to improve the operating efficiencies of its present ventures.

The records of the enterprises are ample evidence of this fact. Perhaps, some should be liquidated immediately if their chances for success are too remote.

6. Certain bureaucratic tendencies are appearing in the economic development program.

Although the Investment Promotions Board apparently has over-all responsibility for all industrial development efforts, it seems likely that the functions of the IDC, the Industrial Promotions Board of the Ministry of Trade and Industries, the Ghana Holding Corporation, and the Investment Promotions Board overlap and possibly conflict with one another. The possible effects of jurisdictional disputes within the total economic development program could substantially hinder the progress of the program. Additionally, prospective foreign investors could be discouraged by an excessive amount of "red-tape" which might result from coordinating efforts.

### Recommendations

The following program is recommended for the IDC to perform its current role more effectively and to prepare for its future responsibilities on a more sound basis:

1. Re-appraise its role relative to the Second Development Plan.

The IDC's goals and objectives must be in realistic alignment with those of the over-all plan. Its problems from failure to accomplish this in the past will be aggravated in the future by the accelerated pace of planned industrial growth.

2. Re-appraise its role relative to the functions of other development-oriented agencies and request governmental clarification if necessary.

The author foresees the possibility of wasteful duplication of efforts and jurisdictional disputes if this is not accomplished. Better coordination of its efforts with other groups should be a primary objective.

3. Adopt the management techniques of the more advanced countries to increase the efficiency and profitability of those enterprises in which it has an owner-manager role.

The operating record of the IDC-managed enterprises clearly indicates the urgent need for the practical application of modern industrial management techniques--particularly in the areas of cost control and human relations. A corollary to this fact is the equally pressing need for the IDC to initiate suitable training for the operating managers of its enterprises.



4. Study and adopt the "feasibility study" approach used effectively by the West Africa Program of the Rockefeller Brothers Fund.

The value of this approach is that the probability of selecting and promoting enterprises which are both attractive to potential investors and beneficial to the economy is increased.

5. Hire a technical economist who has had broad experience in conducting feasibility studies.

This expert should perform the same function for the development bank that the Rockefeller Brothers Fund's program does for the West African countries. In other words, he should be capable of mobilizing and coordinating technical resources for the evaluation of a proposed project. He should also be knowledgeable as to the capital resources for risk ventures throughout the world. It is desirable that he have actual experience conducting feasibility studies to permit a sound interpretation of survey results. Such a background would also enable him to screen the large number of potential projects for the most attractive ones in a preliminary fashion. Additionally, he would be able to train the staff in the approach. Another desirable asset, of course, would be an intimate knowledge of Ghana or other West African countries.

The above program should aid the Industrial Development

Corporation in realizing its over-all potential for promoting the industrialization of Ghana. It should also strengthen its capabilities in the particularly critical area of selecting and promoting those enterprises having a good probability for generating profits and contributing to the economic goals of Ghana.

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## APPENDIX A

EXHIBIT 1

ICICI CHECKLIST FOR INVESTMENT PROPOSALS

I GENERAL

- 1.01 Name and address of applicant (If applicant is one of a group of associate companies, give brief description of group and applicant's relation to it.)
- 1.02 Bankers' references on applicant.
- 1.03 Nature of present and proposed business.
- 1.04 Amount and type of financial assistance sought from ICICI.

II BACKGROUND IF APPLICANT IS AN EXISTING COMPANY

- 2.01 Brief history of existing business.
- 2.02 Last 5 years final accounts and Directors' Reports together with up-to-date pro-forma final accounts, if last printed balance sheet is outdated.

Explanations for any abnormal items in the above accounts. Reasons for revaluation of assets, if any, along with a report on which such revaluation is based.

- 2.03 Present borrowings -
  - Outstanding debentures
  - " mortgages and other long-term debt
  - " bank borrowings and maximum limit

(Copies of all relevant documents mentioned above should be provided.)

- 2.04 Depreciation policy.
- 2.05 Present position regarding income-tax assessments.

- 2.06 Details of pending litigation either by or against the Company.
- 2.07 Copy of Memorandum and Articles of Association.
- 2.08 Names of major shareholders and their respective holdings of ordinary and preference shares.

### III THE PROJECT

- 3.01
  - a. Comprehensive report on the expansion, modernisation or new project, bringing out all salient features.
  - b. Description of methods of production, process etc. for each product line.
- 3.02 Present and proposed rated capacity and normal expected production capacity for all product lines. (Capacities should be expressed on same basis and in relation to the working method as indicated in 3.03.)
- 3.03 Indicate working of each product line as follows:
  - a. For continuous working indicate normal working days in a year.
  - b. For "shift" working indicate number of shifts expected to run and number of days per year.
- 3.04 Year by year percentages of productive capacity until normal production is reached. Also percentage of normal productive capacity of existing lines of production.
- 3.05 Schedule of construction by major items of work viz. -
  - a. Site preparation
  - b. Design
  - c. Placement of orders
  - d. Construction of building
  - e. Installation of plant
  - f. Trial or pilot production
  - g. Start of commercial production
- 3.06 Plant location and its suitability with regard to:
  - a. Suitability of process
  - b. Raw materials



- c. Essential services like power, steam, fuel, water
  - d. Market and sales outlet
  - e. Labour
  - f. Local regulations concerning pollution by smoke, dust, effluent etc.
  - g. Geological or topographical conditions
  - h. Transport
  - i. Any other considerations.
- 3.07 Availability of domestic and/or imported raw materials. Whether any contracts have been made for purchasing raw material requirements. In case of imported raw materials, the current import licencing position. If the applicant intends to have his own farms, plantations, quarries, etc. details should be provided of the quantity and quality of raw material sources available and of any contracts with a view to securing future supplies.
- 3.08 Electric power requirements in terms of kilowatts per day. Prospective sources and whether any definite arrangements have been made for its availability and rate.
- 3.09 Fuel requirements, prospective sources and definite indications for its availability and rate.
- 3.10 Water requirements in terms of imperial gallons per day and its rate per 1,000 gallons. Prospective sources, its availability and provision for water treatment.
- 3.11 Labour housing colony, community centre and amenities available or expected to be provided by the factory.
- 3.12 Nature of transport facilities at site - whether suitable for bringing in raw materials and heavy machinery and taking out finished goods, if items are bulky or heavy. Distance of nearest railway station and port from site and whether a railway siding or jetty is contemplated.
- 3.13 Estimate of numbers of managerial and technical personnel and skilled and unskilled labour. Facilities for training local staff. Availability of trained technical personnel and skilled labour. Allocation of labour on various operations.

## 3.14 Local and Government regulations for -

- a. Smoke pollution
- b. Dust pollution
- c. Effluent discharge

What methods or steps will be taken for the above and particularly for effluent disposal.

3.15 Whether competitive quotations were obtained prior to selection of suppliers for plant and machinery. A comparative statement showing the various quotations and reasons for final selection.

3.16 Report on technical collaborator and/or major machinery supplier. Have they had experience in setting up a similar plant in similar conditions?

3.17 Separate lists showing individual items of plant (with corresponding cost) to be imported and purchased locally.

3.18 Details of arrangements and copy of contract for technical collaboration, if contemplated, and also for training of Indian personnel.

3.19 Copy of technical report, if any.

3.20 Lay-out of the plant and flow sheet of the process.

3.21 Extent to which construction and erection work will be performed by applicant departmentally or through contractors by inviting tenders.

3.22 If project has been designed with a view towards future expansion, when is the first expansion contemplated and by what capacity?

## IV THE COST OF THE PROJECT

4.01 Detailed break-up of the capital cost of project should be given on the following lines -

<u>ALREADY INCURRED</u>	<u>TO BE INCURRED</u>			Total Rupees and in Rupees equiva- lents
	In Rupees or ru- pee equivalents of foreign ex- change	In Rupee equivalents		
		<u>In Rupees</u>	<u>of For. Ex.</u>	
	From	From	From	
	From other ICICI sources	From ICICI sources	From other sources	

- a. Land for factory site -
  - i) Cost of acres  
@ Rs per acre
  - ii) Site development expenses (viz. roads, drainage, culverts, perimeter wall and lighting, levelling etc.)
- b. Land for cultivation or quarrying -
  - i) Cost of acre @ Rs. per acre
  - ii) Development expenses on the same
- \*c.
  - i) Factory and administrative buildings, godowns, silos and other civil works
  - ii) Housing colony
- d. Plant and machinery -
  - i) Imported FOB cost of Main machinery Auxiliaries including power plant, transformer etc. if any. (provision for escalation of price to be shown separately.)
  - ii) Insurance and freight
  - iii) Import duty
  - iv) Indigenous equipment (Provision for escalation of price, if any, should be shown separately)
  - v) Transportation charges to site on both imported and indigenous equipment

- vi) Provision for distribution of power, cabling and lighting
  - vii) Spare parts for imported and indigenous equipment
  - viii) Erection charges (including expenses and fees of foreign erectors)
  - ix) Royalty or engineering fees for technical collaboration
- e. Railway siding
  - f. Water supply, storage facilities and treatment
  - g. Effluent treatment and disposal plant
  - h. Workshop and laboratory equipment
  - i. Fire-fighting equipment
  - j. Miscellaneous fixed assets (e.g., vehicles, furniture and fixtures, etc.)
  - k. Any special expenditure pertaining to that particular industry
  - l. Preliminary expenses (legal expenses, brokerage, commission, etc. separately)
  - m. Deferred revenue or all other capital expenditure up to start of commercial production -
    - 1) Working expenses
    - 2) Interest on deferred payments

- 3) Interest on borrowings, guarantees etc.
- n. Provision for contingencies (indicate basis of estimate)
- o. Initial requirements of working capital (also showing details of total requirements and arrangements made for the balance)

- NOTE: \*i) Number and type of structures, built-up area and average height of each, stating cost per sq. ft. or cu. ft. - estimate for each structure should be given individually.
- ii) Number and type of structures, built-up area and cost per sq. ft. - Government grants and subsidies under the Industrial Housing Scheme)

#### V MEANS OF FINANCING

- 5.01 Source of funds for the project under consideration should be shown giving terms of issue and of redemption where applicable under various heads viz. -
- a. by issue of equity share capital
  - b. by issue of preference share capital
  - c. by issuing of secured debentures
  - d. by mortgage loans
  - e. by unsecured loans and deposits
  - f. by deferred payments to machinery suppliers
  - g. from internal resources
  - h. from banks (also state maximum limit allowed)
  - i. from Government subsidies and grants
  - j. from any other source
- Source of funds for expenditure in rupees and in foreign exchange should be shown separately.
- 5.02 Financial contribution by promoters and foreign collaborators.
- 5.03 Assistance requested from ICICI.
- 5.04 Security offered for ICICI's assistance.

- 5.05 Present and proposed capital structure. Extent to which any capital contribution will be made in a form other than cash.
- 5.06 Pro-forma balance sheet of the company as at date of completion of the project, and each year until attainment of normal production.
- 5.07 Equity/debt ratio both present and after completion of project.
- 5.08 Details of other applications for financial assistance made in India or abroad.

## VI THE MARKET

- 6.01 Company's sales of each product line for the past five years, in quantity and value (at home and export).
- 6.02 Consumption of the commodity in India in past five years; amount provided from domestic production and from imports.
- 6.03 Present and future demand for the commodity. Basis on which future demand is estimated.
- 6.04 Prevailing domestic prices (ex-factory) and import prices (c.i.f.) of comparable commodity. Are prices subject to Government or other control? Do any other Government measures affect sales?
- 6.05 Degree of protection afforded by import duties and by import quotas.
- 6.06 Percentage of prospective sales intended for home market and export. Advantages, if any, available from Government for exports.
- 6.07 Regional scope of home and foreign markets.
- 6.08 Expansions or new projects contemplated in the industry, aside from present project.
- 6.09 Company's output as percentage of present and prospective domestic production.
- 6.10 Names of principal competitors, Indian and foreign, in home market and abroad. Nature of competition, in price and quality.

- 6.11 Main classes of buyers.
- 6.12 Existing and proposed methods of distribution, at home and abroad.
- 6.13 Prospective place of the industry in Indian economy.

#### VII PROFITABILITY

- 7.01 Detailed statements of cost of production and profitability for a normal year's production (as per 3.04 above) for each product line. In case of an existing Company, production from existing lines and from the expansion should be shown separately.

	Total quantity required	Price at which it will be obtained	Cost per appropriate unit of product
--	-------------------------------	---	---

#### Raw materials -

from internal sources  
bought out

Conversion materials viz.,  
chemicals, dyes etc.

#### Electric power -

Cost of power bought out  
" " " generated internally

Steam

Fuel

Water

Direct labour

Maintenance of plant

Administrative overheads (viz.,  
salaries, insurance, rent,  
rates and taxes, etc.)

Excise duty

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Selling expenses -

- a. Commission
  - b. Outward freight
  - c. Packing
  - d. Advertising & publicity
- 

Interest -

- a. On bank loans
- b. " medium & long-term borrowings
- c. On deposits

Depreciation - (rate should be given for all items)

- a. On plant and machinery
- b. " buildings
- c. " other assets

Managing Agents/Managing Directors/ Secretaries and Treasurers Remuneration

Total sales (showing quantities and prices for each product line)

Operating profits

Taxation

NET PROFITS

=====

NOTES: State basis of estimated Selling Price mentioned above.

7.02 Percentage of net sales to capital employed.

7.03 Percentage of operating profit to net sales.



- 7.04 Percentage of operating profit to owners' investment.
- 7.05 Percentage of operating profit to capital employed.
- 7.06 State facilities for costing and internal check.
- 7.07 Detailed statement of income and cash flow by quarterly periods during construction and by annual periods thereafter until attainment of normal production.

A. SOURCE OF FUNDS:

Footnotes

- a. 1) Share issue
- b. 2) Profit after depreciation & development rebate but before interest & taxation
- c. 3) Depreciation provision for the year
- 4) Development rebate
- d. 5) Increase in secured medium and long-term borrowings
- 6) Increase in unsecured loans and deposits
- 7) Increase in bank borrowings for working capital
- 8) Increase in liabilities for deferred payments (including interest) to machinery suppliers
- 9) Sales of fixed assets
- 10) Decrease in investments
- 11) Other income

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T O T A L

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B. DISPOSITION OF FUNDS:

- e. 1) Capital expenditure
- f. 2) Decrease in secured medium and long-term borrowings
- f. 3) Decrease in unsecured loans and deposits
- 4) Decrease in bank borrowings for working capital
- 5) Decrease in liabilities for deferred payments (including interest) to machinery suppliers

- g. 6) Increase in current assets
- 7) Increase in investments
- c. 8) Interest
- c. 9) Taxation
- 10) Dividends
- 11) Other expenditure

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- C. OPENING BALANCE OF cash in hand and at bank
- D. NET SURPLUS/DEFICIT - Add/deduct the net surplus/  
deficit between source and disposition of  
funds
- E. CLOSING BALANCE OF cash in hand and at bank

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Footnotes:

- a. Net balance should be shown after deducting all preliminary expenses connected with the issue.
- b. Profit arising from the expansion program should be shown separately.
- c. Detailed workings of the figures shown should be provided.
- d. Borrowings from each source should be shown separately.
- e. Normal capital expenditure on the existing plant should be shown separately. In case of a new project administrative and other expenditure up to start of production should be shown under this head also.
- f. Repayments of individual borrowings should be shown separately.

- g. This relates to the initial locking up of funds in stock, stores and debtors. It is assumed that this amount remains constant once normal production is obtained.

7.08 After the plant has been completed, at what percentage utilization of capacity will it "break even" financially, i.e., will the total gross income including depreciation allowances be just sufficient to cover interest and amortization on debt? (Where the project is not a financially autonomous venture, but represents an addition to an existing enterprise, this question should be answered with respect to the total enterprise, including the new project.)

#### VIII MANAGEMENT

- 8.01 Names of Promoters and Directors together with particulars of their other business connections and experience particularly in the type of project contemplated.
- 8.02 Name of Managing Agents, Managing Directors, Secretaries and Treasurers; brief details of the firm and its activities.
- 8.03 Copy of Managing Agency or Secretaries and Treasurers Agreement.
- 8.04 Who will direct construction and who will manage the project when completed? What is their business experience? Have they operated a similar enterprise previously? Is some degree of foreign management or technical advice needed temporarily or permanently? If so, how will it be obtained?
- 8.05 Names of purchasing and sole selling agents.
- 8.06 Copies of purchasing and sole selling agency agreements.

#### IX STATUS OF GOVERNMENT CONSENTS

- 9.01 Status of following licences of letters of intent:
  - a. Industries Licence
  - b. Capital Issues Consent
  - c. Reserve Bank Consent
  - d. Import Licence

## X RECOMMENDATIONS

- 10.01 Recommendations - state reasons.
- 10.02 Any special conditions that should be attached to ICICI's approval.
- 10.03 Any special follow-up procedure to be suggested.
- 10.04 Suitable amortization schedule.

APPENDIX B

## GHANA INDUSTRIAL DEVELOPMENT CORPORATION BALANCE SHEET AS AT 30TH JUNE 1958

## ASSETS

			£G <sup>1</sup>	£G
Fixed Assets				
Freehold & Leasehold Land and Buildings:			142,893	
Furniture & Equipment at cost			15,113	127,780
<u>Less: Depreciation to-date</u>				
Investments: At cost, less Depreciation				2,230,696
	Cost	Provision for Deprec.	Net Balance	
	£G	£G	£G	
Subsidiary Companies:				
Shares	1,042,773	237,235	805,538	
Loans	101,400		101,400	
Advances	330,259	44,362	285,897	
	<u>1,474,432</u>	<u>281,597</u>	<u>1,192,835</u>	
Associated & Other Companies:				
Shares	379,245	109,045	270,200	
Loans	367,000	7,000	360,000	
Advances	74,182	9,000	65,182	
	<u>820,427</u>	<u>125,045</u>	<u>695,382</u>	
Small & Development Loans:	200,229	67,056	133,173	
Projects:	270,059	60,753	209,306	
	<u>2,765,147</u>	<u>534,451</u>	<u>2,230,696</u>	
Current Assets:				
Cash on Hand and in Banks			312,893	
Debtors and Payments in Advance			14,458	
Staff Loans			11,847	339,198
				655,977
Operating Costs	<u>Expenses</u>	<u>Deprec.</u>	<u>Total</u>	
Expenditure to 1st July 1957				
Add: Expenses for Year to 30/6/58	90,522	384,447	474,969	
Expenditure per Statement II				
Provision for Depreciation on Investments	31,004		31,004	
		<u>150,004</u>	<u>150,004</u>	
	<u>121,526</u>	534,451	655,977	£G3,353,651

(Continued)

EXHIBIT 1

(Continued)

GHANA INDUSTRIAL DEVELOPMENT CORPORATION BALANCE SHEET AS AT 30TH JUNE 1958

LIABILITIES

Capital Liability	£G
Advances from Government	3,326,071
Current Liabilities	27,580
	£G3,353,651

(Source: "I. D. C. Report and Accounts," 1957-58)

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<sup>1</sup> £G represents Ghanaian pound (at par with British pound)

## EXHIBIT 2

## GHANA INDUSTRIAL DEVELOPMENT CORPORATION OPERATING EXPENSES FOR THE YEAR TO 30TH JUNE 1958

## Staff Expenses:

	£G	£G	£G
Directors Salaries	4,229		
Staff Salaries, Wages and Provident Fund Contributions	<u>44,969</u>	49,198	
Travelling and Transport--Overseas and Local--Directors	1,023		
--Staff	4,580	5,603	
Bungalow rent and Expenses, less recoveries		1,587	
Depreciation on Bungalow Furniture and Equipment		1,611	57,999

## General Expenses:

Rent, Rates and Insurance		2,181	
Repairs to Buildings		2,630	
Conservancy, Electricity and Water		717	
Printing and Stationery		1,341	
Postage and Cables		1,050	
Medical Expenses		1,775	
Legal and Professional Charges		1,601	
Advertising		827	
Bank Charges		1,072	
Provision for Doubtful Debts		345	
Repairs to Office Equipment		145	
Sundry Expenses		1,796	
Depreciation on Buildings and Office Equipment		<u>3,274</u>	<u>18,754</u>
			76,753

Less: Income--

Loan Interest		16,449	
Rents Receivable		8,917	
Dividends		5,000	
Establishment Charges		15,000	
Income relating to previous years--net		<u>383</u>	<u>45,749</u>

Expenses unrecovered for year to 30th June, 1958, transferred  
to Balance Sheet

£G31,004

As per Statement I. Assets IV.

(Source: "I. D. C. Report and Accounts," 1957-58)



EXHIBIT 3

GHANA INDUSTRIAL DEVELOPMENT CORPORATION SUMMARY OF SMALL AND DEVELOPMENT LOANS--1957/58

Classes of Loan	(a) £G	(b) £G	(c) £G	(d) £G	(e) £G	(f) £G	(g) £G	(h) £G
A Cereal Processing	13,226	3,364	1,194	17,784	1,268	582	1,850	15,934
B Baking and Bottling	3,567	1,972	443	5,982	329	151	480	5,502
C Engineering & Electrical Works	35,268	11,825	3,682	50,775	6,826	2,879	9,705	41,070
D Bricks and Pottery	834		71	905	258	72	330	575
E Printing	808	1,009	53	1,870	758	58	816	1,054
F Woodworking & Sawmilling	32,645	4,831	3,108	40,584	4,682	1,528	6,210	34,374
G Tailoring & Dressmaking	3,689	802	344	4,835	662	382	1,044	3,791
H Shoemaking & Leathercraft	1,128		106	1,234	72	47	119	1,115
I Other Businesses	33,090	2,335	3,087	38,512	2,763	2,122	4,885	33,627
--Artisans	10,295		490	10,785	1,640	343	1,983	8,802
--Special Development	54,669		1,692	56,361	1,837	139	1,976	54,385
£G	189,219	26,138	14,270	229,627	21,095	8,303	29,398	200,229

As per Statement I  
Assest IID.

£G200,229

- (a) Balances at 1/7/57
- (b) Loans made During yr.
- (c) Interest Chargeable
- (d) Total
- (e) Capital )
- (f) Interest Repaid During Year
- (g) Total )
- (h) Balance at 30/6/58

## APPENDIX C

**TABLE XV**  
**SUMMARY OF INDUSTRIAL DEVELOPMENT CORPORATION INVESTMENTS**  
**IN SUBSIDIARY COMPANIES**

SUBSIDIARY COMPANIES	PRODUCTS OR SERVICES	START -UP DATE	No. of Ghanaian Employees (Expatriates)	Percentage Equity Holding <sup>1</sup>	Total Investment At Cost <sup>2</sup> (₵)	Profits (Losses) ₵		MAJOR REASONS FOR 1959 LOSSES	FUTURE OUTLOOK FOR PROFITABLE OPERATION
						1958	1959		
Ashanti Timber Products, Limited	Furniture & doors	July, 1955	69 (2)	100%	99,257	(6,999)	(8,791)	Incurred large losses due to damage of goods in transit to distant markets.	Unfavorable
Ashanti Stone Products, Limited	Crushed stone	Feb., 1956	58	60	13,000	(3,322)	(1,069)	Limited and unpredictable demand.	Unfavorable
Ghana Laundries Limited	Laundry & dry cleaning Services	May, 1956	86	60	27,680	10,350	12,617		Favorable
Ghana Cigar Company Limited	Cigars	Nov., 1955	18	50	7,607	(2,181)	(1,270)	Shortage of tobacco -- dependent upon unreliable local supplies & imports.	Unfavorable
Local Industries Salesroom, Limited	Handicraft articles	June, 1953	9	100	3,406	154	233		Favorable
Metal Industries, Limited	Various metal products including nails	June, 1954	49 (1)	85	33,983	6,112	9,242		Favorable -- planned factory will increase share of nail market to 60 - 80%.
Ghana Match Company Limited	Matches	April, 1958	Unknown	100	178,500	*	(49,406)	Poor quality precluded commercial sales in any volume.	Highly problematical because of poor reputation of product.
Ghana Soap Products, Limited	Soap	Oct., 1955	31 (1)	100	57,183	(9,941)	(6,393)	Quality too poor to compete with imported soap.	Unfavorable -- new equipment failed to improve quality.
I. D. C. Furniture & Joinery Limited	Furniture	June, 1953	254 (3)	100	141,590	(5,649)	(4,053)	Slack trade plus difficulties with labor unions.	Questionable
Nkawkaw Sawmills Limited	Lumber	Dec., 1953	161 (2)	100	102,490	(7,958)	(20,959)	Thefts and fraudulent acts by employees closed plant and forced re-organization.	Questionable since re-organization has not produced results.
Engineering Limited	General engineering work	Sept., 1956	32	100	7,737	(3,023)	(2,581)	Heavy fixed costs and excessively large labor force plus lack of contracts.	Unfavorable
Engineering & Construction Co., Ltd.	General engineering work	Sept., 1955	*	100	4,624	(50,485)	*		Unfavorable
Ghana Hotels Co., Limited	Operates Ambassador Hotel	Jan., 1957	420 (13)	100	188,270	(34,058)	(12,822)	Occupancy below capacity.	Promising -- has become focal point for Ghanaian business and social life.
Warababa Bakeries, Limited	Bakery goods	March, 1955	*	100	58,370	(18,530)	*		Unfavorable
Match Development Co., Limited	Matches	-----	*	64	9,090	*	*		Unfavorable
West African Pictures, Limited	Motion picture theaters	Aug., 1953	134 (5)	100	310,291	3,233	2,843		Unfavorable unless operating economies are effected or prices raised.
Ghana Brick & Tile Co., Limited	Clay tiles & bricks	March, 1953	Few	100	231,354	(49,475)	(20,318)	Plant on maintenance basis while investigations are being made to determine if economic operation is possible.	Unfavorable

\* Not conducting business

<sup>1</sup> Data on percentage holding as of June 30, 1958.

<sup>2</sup> Data on total investment as of June 30, 1958.

(Sources: "I. D. C. Report and Accounts," 1957 - 1958 and Preliminary Draft 1958 - 1959)

TABLE XVI  
SUMMARY OF I.D.C. INVESTMENTS IN ASSOCIATED AND OTHER COMPANIES

ASSOCIATED COMPANIES	PRODUCTS OR SERVICES	START-UP DATE	No. of Ghanaian Employees (Expatriates)	I.D.C. Percent-age Holding <sup>1</sup>	Total I. D. C. Investment At Cost (£) <sup>2</sup>	PROFITABILITY (P = Profit; L = Loss)		REASONS FOR LOSSES	OUTLOOK FOR PROFITABLE OPERATION
						1958	1959 <sup>3</sup>		
Ghana Tyre Service Limited	Tire re-treading service	Nov., 1954	10 (2)	10%	178	P	P		Favorable - increasing demand will require expansion in near future
Hunting Aerosurveys Limited	Aerial survey services	June, 1955	N. A.	26	1,040	P	N. A.	Loss probably incurred in 1959 since bad weather prevented any photography	Questionable since weather conditions hampered operations for last 2 years
Crystal Oil Mills Limited	Production & refining of edible oils	Aug., 1955	18	50	14,971	P (small)	N. A.		Questionable because of fluctuating supplies and prices of raw materials
M. E. Sackey & Co., Limited	Lumber, exports of logs and timbers	Feb., 1955	380 (1)	49	65,196	L	L	Heavy rains both years drastically reduced output. Also inefficient operations	Unfavorable unless recent re-organization improves efficiency.
Galloway, Kelland & Gibson Limited	Logging operations	June, 1956	N. A.	50	75,659	L	Liquidated	Liquidated because highly unprofitable. Site of operation poorly located	Liquidated
Pioneer Biscuit Co., Limited	Biscuits and other baking goods	Dec., 1957	215 (5)	50	50,523	L	N. A.	Insufficient demand plus import duty on packaging materials	Questionable since import duty results in non-competitive prices vs. imported biscuits
Amalgamated Engineering Co., Ltd.	Fuel storage tanks, lorry bodies and structural steel work	May, 1957		33	40,000	P (modest)	N. A.		Favorable since demand has increased for tanks and steel structures
Sanco Consolidated, Limited	No information available	N. A.	N. A.	44	10,000	N.A.	N.A.		
Ghana Cold Stores Limited	Cold storage facility & ice mfr.	Aug., 1959	N. A.	36	4,000	Not Operating	Not Operating		
Ghana Cold Stores Limited (Non-voting)	Cold storage facility & ice mfr.	Aug., 1959	N. A.	61	61,000	Not Operating	Not Operating		
OTHER COMPANIES Guinea Press Limited	Newspaper publishing	March, 1958	N. A.		497,860 *	Not Operating	N. A.		Questionable - plans call for printing of two daily newspapers and magazine plus legislative documents; however no operating data available

N. A. = Not Available

\*Includes £115,000 shares (redeemable preference non-voting), £360,000 (5% mortgage loan) and £22,860 in advances.

<sup>1</sup> Data on percentage holding as of June 30, 1958.

<sup>2</sup> Data on total investment as of June 30, 1958.

<sup>3</sup> Profits or losses in specific terms of £'s are not given for most associated companies.

(Sources: "I. D. C. Report and Accounts", 1957 - 1958 and preliminary draft 1958 - 1959.)