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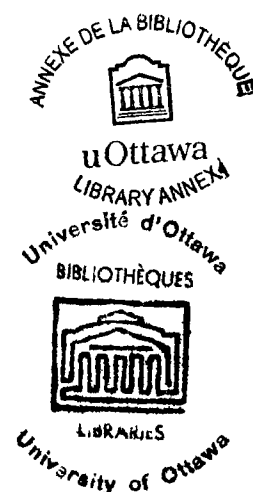
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ECONOMIC PLANNING AND BUDGETING
IN DAHOMEY

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Thesis presented to the
Faculty of Social Sciences
University of Ottawa as partial
fulfilment of the degree of
Master of Arts
in
Economics.



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PREFACE

With the exception of the United States, Canada, and West Germany, almost every country in the world has a formal development plan. Today, the national development plan appears to have joined the national anthem, the national flag, and the national airline as an essential trapping of sovereignty and modernity.

Although planning is common to practically all countries, its scope, and content vary widely according to the existing economic and social system. In the centrally planned economies where the principal means of production are owned and operated by the State, planning is comprehensive. The activities of individual production units constitute an integral part of national plan and their specific tasks or programmes are often in the nature of directives originating from a national plan. In a mixed economy the government directly undertakes plan implementation in the public sector and provides incentive to the private sector.

For geographical, political, and philosophical reasons, the first type of planning is unlikely to be applicable to Dahomey - the Dahomean citizens love freedom.

The selection of professors Tinbergen's, Lewis', and Mayne's theories of economic planning and the survey of International planning technique are intended to bring supplementary experience to the planning pattern of Dahomey which has remained entirely french oriented. The more the nation's planners learn about other planning experiences, the more enlightened they are, and the better for the country.

In writing this thesis, I have had the benefit and privilege of conducting the research under the supervision of Dr. O.J. Firestone, professor of economics, and vice-dean of the faculty of Social Sciences. I am indebted to him for his encouragement, criticisms, and advice.

Mr. Jean Garnier of The International Monetary Fund gave me stimulating advice. Professor Rosen and professor May made helpful suggestions which led to the numerical analysis of the budget figures. Carlyle Mitchell and Paul Delmas read the draft and offered detailed criticisms. To each of them and to the staff of the University computing center go my thanks.

Finally, I am grateful to the Canadian people and government for the financial assistance.

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I N T R O D U C T I O N

1. Definition of the Problem

Dahomey became independent in 1960. This was looked upon by the average Dahomean citizen as an opportunity to develop the country and to raise his standard of living. To give full recognition to this aspiration, the various governments of the nation have attempted to plan the pattern of economic growth and progress of the country as a whole and its major regions while, at the same time safeguarding the interests of private individuals and enterprise. Yet, serious obstacles have been encountered in pursuing the required developmental efforts and in preparing the necessary economic plans. Two of these obstacles concern the implementation of the Five-Year Plan and the design of the Annual Budget. In particular, the question has to be resolved: How can the Five Year Plan and the Annual Budget be dovetailed so as to realize, on a continuing basis, the economic, social and political goals established? The aim of this thesis is to contribute to the solution of this burning issue.

2. Methodology

The methodology employed will follow two approaches. The first part would contain references to economic theory as a guide to establish principles for a framework of planning techniques in less developed countries. Matrices summarizing a number of alternative techniques will be included.

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The second part will present the most recent data available about government expenditures taken from the Annual Budget and the Five Year Plan and point to the inadequacy of the data presented and the methods used as a means of assessing the feasibility of realizing the plan. Then a proposal for a source and disposition of funds statement will be put forward, as well as suggestions for restructuring the items shown in the Budget so as to present a more meaningful economic and functional classification of the proposed government expenditures.

3. Layout

The thesis begins with an analysis of a number of leading definitions of Economic Planning. Next it examines some theories of Economic Planning. The chapters on Techniques of Planning and Role of Economic Planning in Less Developed Countries provide a basis for an objective assessment of the problems faced in Dahomey in reconciling Economic Planning on a medium term basis with Government Budgeting on a short-term basis. The study ends with an outline of some of the benefits which may accrue to Dahomey's economy if this country were able to improve its planning and budgeting procedures so as to reinforce their mutual support.

CHAPTER I

ECONOMIC PLANNING DEFINED

Economic planning has been defined in widely different ways. For instance, the Norwegian econometrician Ragnar Frisch suggests that planning involves

"coordinating everything in one simultaneous (and integrated) piece of analysis and doing it on some optimum basis. It is solving the whole nexus as one simultaneous problem where everything determines everything else, much in the same way as all the unknowns in a system of equations determine each other simultaneously."¹

For Professor Everett E. Hagen of the Massachusetts Institute of Technology, the term implies that

"the government has organized its decision-making processes so as to take account of all the economic effects of each of its acts, the total programme of action being a coherent one designed to achieve as rapid economic growth as is consistent with other national goals."²

Professor Carl Landauer of the University of California at Berkeley makes the proposition that planning involves

"Coordination through a conscious effort instead of the automatic coordination which takes place in the market, and that conscious effort is to be made by an organ of society."³

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1. Frisch, Ragnar, Planning Economic Development, Richard D. Irwin, Inc., Homewood, 1963 p.2.
 2. Hagen, E.E., Planning Economic Development, Richard D. Irwin, Inc., Homewood, 1963 p.1.
 3. Landauer, Carl, Theory of National Economic Planning, University of California Press, Berkeley, 1944 p.12.

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He further adds that it is

"guidance of economic activity by a scheme which describes in quantitative as well as qualitative terms, the productive processes that ought to be undertaken during a design future period."4

Professor Lionnel Robbins of the London School of Economics says that

"Planning is a collective control of supersession of private activities of production and exchange....To plan is to act with purpose, to choose, and choice is the essence of economic activities."5

In Economic Planning: Theory and Practice, Mr. Tandon of India defines the concept as

"arrangement of resources which are scarce in relation to the needs for their alternative uses in such a way that the satisfaction yielded by them is maintained at an optimum level.... It thus involves the element of choice between scarce means of achieving a predetermined end....It is a careful thought out rational arrangement of economic resources."6

In the view of the head of the Netherlands School of Economics, Professor Jan Tinbergen,

"a plan consists of a set of coherent figures projecting the most desirable development of the economy during some future period. Dependent on the length of this period, we speak of short term or long term plan."7

4. Ibid, p.13.

5. Robbins, Lionnel, Economic Planning and International Order, MacMillan Co., London, 1965 p.5.

6. Tandon, B.C., Economic Planning: Theory and Practices, Chaitanya Publishing House, Allahabad, 1966 p.3.

7. Tinbergen, Jan, Central Planning, Yale University Press (New Haven, 1964)p.6.

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...."An essential part of the plan is that it should also indicate the measures to be undertaken by the state."8

In his Development Planning: Lessons of Experience, Professor Albert Waterston defines the concept as follows:

"planning is an organized intelligent attempt to select the best available alternatives to achieve specific goals. It represents the rational application of human knowledge to the process of reaching decisions which are to serve as the basis of human action. The central core of the meaning remains the establishment of relationship between means and ends with the object of achieving the latter by the most efficient use of the former."9

According to Professor Alvin Mayne

"economic planning performs four functions: the first task is that of evaluating potentials; the second of translating objectives into programmes and actions; the third is forming the basis for choosing among alternative programmes in light of limited resources; and the fourth is that of coordinating."10

In "Planning in Pakistan: Objectives and Approaches" Professor Huda of Dacca University mentions that

"our objectives....give us the essentiality for planning. We have to arrive at a combination of these objectives for

8. Tinbergen, Jan, Development Planning, George Weidenfeld and Nicholson Limited, London, 1967 p.36.
9. Waterston, A. Development Planning: Lessons of Experiences, The Jopkins University Press, Baltimore, 1965 p.8.
10. Mayne, Alvin, "Designing and Administering a Regional Economic Development Plan with Specific Reference to Puerto-Rico," Organization of Economic Cooperation and Development Publications, Paris, 1961, p.144.

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specific period of 20 or 25 years or the Five-year plan period or the Annual programme. We have to arrive at the combination of these objectives that can be attained with very limited resources that we have."¹¹

Finally, Professor Arthur W. Lewis says that

"sound governmental planning consists of establishing priorities for the public investment programme and formulating a sensible and consistent set of public policies to encourage growth in the private sector....A development plan may contain any or all of the following features:

- (i) A survey of the current economic situation;
- (ii) Proposals for improving the institutional framework of economic activities;
- (iii) A list of proposed government expenditures;
- (iv) A review of major industries;
- (v) A set of targets for the private sector;
- (vi) A macroeconomic projection for the whole economy."¹²

An analysis of the definitions by these leading economists who represent also a cross-section of professional judgements reveals that the main features involved in the planning concept are:

- (1) Rational arrangement of economic resources.
- (2) Clearly established objectives.
- (3) Means of influencing distribution of resources by the state.
- (4) Objectives to be achieved within a period of time.

11. Ghouse, (editor), Economic Planning and Development in Pakistan Trade and Industry Publications Limited, Karachi, 1965 p.29.

12. Lewis, W. Arthur, Development Planning: The Essentials of Economic Policy, Allen and Unwin Limited, London, 1966 p.13.

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- (5) Scientific management and rationalization of economic development.
- (6) Basis for the formulation of appropriate economic policies.

These factors can be summarized in matrix form:

Table 1
A MATRIX SUMMARIZING THE MAIN FACTORS INVOLVED IN THE CONCEPT:
ECONOMIC PLANNING AS DEFINED BY SELECTED AUTHORS

AUTHORS	COMMON DENOMINATORS				NON-COMMON DENOMINATORS	
	Rational Arrangement of Economic Resources	Clearly Established Objectives	Scientific Management and Rationalization of Economic Development	Basis for the Formulation of Appropriate Economic Policies	Means of Influencing Distribution of Resources by the state	Objectives to be Achieved Within a Given Interval of Time
	1	2	3	4	5	6
Less Developed Nations:						
HUDA (Pakistan)	X	X	X	X	O	X
TANDON (India)	X	X	X	X	O	X
Western Europe:						
FRISCH (Norway)	X	X	X	X	X	X
TINBERGEN (Holland)	X	X	X	X	X	X
ROBBINS (U.K.)	X	X	X	X	X	O
LEWIS (U.K.)	X	X	X	X	X	O
U.S.A.:						
HAGEN	X	X	X	X	X	O
LANDAUER	X	X	X	X	X	X
MAYNE	X	X	X	X	O	O
WATERSTON (World Bank)	X	X	X	X	O	X

Note: X means applicable

O means non-applicable

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The matrix indicates that four denominators - (1) rational arrangement of economic resources; (2) clearly established objectives; (3) scientific management and rationalization of economic policies; (4) basis for the formulation of appropriate economic policies - are common to all authors, while two denominators - (5) means of influencing distribution of resources by the state; (6) objectives to be achieved within a given interval of time - are not common to all authors. However, Professors Tinbergen and Landauer list all six denominators in their definitions. Definitions suggested by Professors Huda, Tandon, Frisch, and Waterston are similar. And Professors Robbins and Lewis propose the same definitions. Finally, Professor Mayne's definition is limited to the common denominators. The question arises: What is the meaning of the various denominators shown in the matrix?

By rational arrangement of economic resources, the authors have in mind the fact that resources are scarce in relation to the demand for their alternative uses. Therefore, if they are not to be wasted, resources must be arranged in such a way that the productivity yielded by them is maintained at an optimum level.

Professor Lionnel Robbins spells out the idea behind "clearly established objectives" by saying that "to plan is to act with purpose, to choose; and choice is the essence of economic activity."¹³ In fact, experience contained in most planning documents attests to the

13. Economic Planning and International Order, op. cit. p.6.

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fact that most countries set certain objectives which they plan to achieve. A survey of planning Techniques in twenty countries¹⁴ covering the four major continents suggests that these objectives are usually some or a combination of the following: to increase national income, to increase productivity, to improve the employment situation, to achieve a viable balance of payments situation, to achieve and maintain stability of prices, to achieve equal distribution of income and to achieve balanced economic development.

As for the third denominator, this concerns: (1) rationalization of economic development; and (2) scientific management. Scientific management implies rational coordination in an enterprise or in a large scale factory so as to reap the advantages of economies of scale: technical economies and labor economies, marketing economies, managerial economies and financial economies.

The major problem of rational economic development lies in policies designated to affect the rates of growth of different areas of a country through proper regional allocation of public investment. In most developing nations, three patterns of such allocation are observed:

- (a) Dispersal of funds among a large number of small projects scattered widely over the national territory for political reasons;

14. See Table 8 page 96.

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- (b) Concentration on a few key industries usually in urban centres at the neglect of other regions of the country;
- (c) The spending of large amount of funds in the underprivileged areas, a practice which contains the danger of misguided investments because of the weakness of entrepreneurship in these regions and the purely "permissive" - hence uneconomical - character of the inducement mechanism set in motion by these investments.

To deal with these problems, an "optional institutional arrangement"¹⁵ is suggested. Such an arrangement would consist in designing economic policies to cut down the "polarization" or "backwash" effects while at the same time avoid interfering with the efficacy of the "trickling-down" or "spread" effects¹⁶.

Thus economic policies aiming at achieving balanced economic growth or development are what Frisch, Landauer, Robbins, Tandon,

15. Hirschman, A. The Strategy of Economic Development, Yale University Press, New Haven, 1958 p.199.

16. Hirschman was the first economist to use the concepts "trickling-down" and "polarization" effects in chapter 10 of the above-mentioned book. Professor Myrdal also uses the terms "backwash" and "spread" effects to describe similar situations in chapters 3 and 4 of his book: Economic Theory and Underdeveloped Regions, Duckworth, Inc., London, 1957. By Hirschman's polarization or Myrdal's backwash effects it is meant the adverse economic effects that the development of the advanced region of a country cause to the less developed regions of the same country. For example, the draining away of key technicians from the backward regions to the more developed areas. The "trickling-down" or "spread" effects are the more favorable economic repercussions from the more developed areas to the less developed regions. The increase of the former purchase and/or investment in the latter is, typically, a spread effect.

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Tinbergen and Waterston have in mind when, implicitly, they mention rational economic development in their definitions.

As for "basis for the formulation of economic policies", it consists in laying down the broad framework of analysis within which policies designed to carry out the plan will be initiated. For instance, before drafting a plan, a number of decisions are made with regard to foreign trade, industrial location, the size of agricultural land, and concrete programmes. Then these decisions are translated into specific objectives. In general, economic policy "concerns itself with three things: 'What we want (the ends), How we get it (the means), and WHO ARE WE; that is, What is the nature of the organization or group concerned?'"¹⁷

As for the "means of influencing distribution of resources by the state", it involves some degree of interference with the working of a free enterprise economy. This interference, as it confronts economic planning, breaks down into three major parts. The first concerns the role of leadership on the part of the government in formulating the policy objectives of the plan whether income policy, employment policy, fiscal policy, price and wage control policy, human resources policy, trade promotion or social stability policy, and economic cooperation policy. The second deals with the large role that government must play in capital formation particularly in less developed economies. The

17. Boulding, Kenneth, Principles of Economic Policy, Prentice Hall, Englewood Cliffs, 1958 p.1.

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third concerns the necessary steps taken by the government with regard to the implementation of the plan. Here, alongside with investment expenditure in social overhead, a number of devices are used. There are: subsidies, exchange rates, import substitution, etc. These devices are designated and administered in such a way that they do not disturb the working of the free market economy. That is why they are called "compatible state intervention" as distinguished from "Incompatible state intervention" which prevails in fully controlled economies of the soviet type.

Denominator 6 of the matrix "objectives to be achieved within a given interval of time" refers to the plan period which is decided upon before the actual process of plan formulation is initiated. In countries where economic planning is of a continuous character, the plans represent an integrated whole of long-term (over 10 years), medium-term (2-10 years), and annual programmes for economic development.

"Long-term plans for economic and social development both for the country as a whole and for individual regions and sectors, are necessary for determination of the main directions of economic development for the solution of critical problems in the way of further progress, for the creation of new branches of industry, for the complex development of separate regions, and for increases in the standard of living of the population."¹⁸ These plans, however, contain only general aggregated targets.

18. United Nations, Planning for Economic Development, U.N.A./5333/Rev. 1, New York, 1963, p.6.

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Long-term plans are coordinated with medium-term plans which are more detailed and concrete. The experience in many countries indicates that medium-term plans have usually been considered sufficient for the construction and putting into operation of large enterprises, for the reconstruction and development of ports, railways and roads. It is also feasible within this period to determine with sufficient accuracy the prospective direction and economic effects of technical progress. Moreover, the targets and tasks of the plan covering such a period, especially with respect to the allocation of goods, improvements in the level of education and health, employment and output per man, can be an important and great stimulus for the fulfillment of the plan.

However, the experience in some countries demonstrates that it is in the preparation of annual plans that aims can be expressed more concretely in terms of planned activities for existing enterprises. Annual plans, in other words, "lend greater precision to the tasks of long and medium plans, directing the operation of the economy in a more operational way, and ensuring the mobilization of all natural resources."¹⁹

Putting together the six denominators - (1) rational arrangement of economic resources, (2) clearly established objectives, (3) means of influencing distribution of resources by the state, (4) objectives to be achieved within a given interval of time, (5) rationalization of economic development, (6) basis for the formulations of appropriate economic policies - analysed attest that establishing selected objectives

19. Ibid, p.7.

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or goals, and devising a method or design for reaching them, constitute the essence of an economic plan. An economic plan covers the whole of economic life or the activity of an economic entity.

Consequently, in this thesis the concept of economic planning in a mixed economy is employed in the sense of the totality of arrangements - concerning both ends and means - designed to accelerate the rate of economic growth of a country and to achieve other developmental and national objectives on a long, medium, and short term basis. Under economic planning there are selected objectives to be fulfilled by means of rational arrangement of economic resources and well defined techniques of production. The government plays a leading role with regard to the formulation of national objectives and the development of appropriate policies to implement the objectives within the framework of the effective working of market forces and individual and corporate initiative and enterprise.

CHAPTER IITHEORIES OF ECONOMIC PLANNING

Having analysed the common and non-common factors involved in economic planning and having offered a definition of this concept, it is now appropriate to examine in detail, some of the leading theories which attempt to provide an understanding of the planning process. In this respect, the contribution of professors Mayne, Lewis, and Tinbergen will be presented.

These authors have been selected because they represent a variety of possible approaches and view points on the topic. In fact professor Mayne is a former director of Bureau of Economics and Statistics at Puerto-Rico Planning Board and Head of the Planning Division at the Agency of International Development. Professor Lewis is one of the leading economists in development and growth and one of the chief advocates of the balanced growth doctrine. The selection of professor Tinbergen is affected by his mathematical and econometric approaches and by the outstanding theoretical contributions made by the famous Netherland School of Economics of which he is the chairman. Thus these authors make accessible substantial collections of theoretical, applied mathematical, and policy materials which reflect the present state of economic planning.

CHAPTER IITHEORIES OF ECONOMIC PLANNINGPART 1: Contributions of Alvin Mayne.

Professor Mayne "speaks about the more concrete facts and features of a plan"¹ and advances our knowledge in the field in three related areas:

- I - He summarizes his experiences on the important subject of the role of the human aspect of decision-making in planning.
- II - He gives an excellent panorama of the factors that would have to enter the planning procedure.
- III - He examines "planning in relation to obtaining financial aid."²

I - The Practical Planner or The Role of Decision-Making in Planning

Mr. Mayne warns that if the planner "operates completely in the abstract, concentrating only on logical sequences, the plan is likely to be relegated to the waste basket or to a shelf."³

To prevent this from happening, the practical planner must assess the types of individuals with whom he is dealing so that he can determine their prejudices, the nature of their jealousies, the effect

 1. Tinbergen, Jan., "Projections of Economic Data in Development Planning", in Seminar on Planning Techniques and Methods. San-Juan Puerto-Rico, 1963, p.26.

2. Ibid, p.185.

3. Ibid, p.11.

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of having come from different background and the holding of a variety of opinions. This, however, does not mean that the planner must necessarily adjust his plan to meet these prejudices, jealousies, background and opinion, but rather that he must study them so that he is aware of what types of planning and objectives the individuals possessing decision-making power are seeking. He must understand their reactions to certain types of planning, and administrative operations and goals, and their attitudes of tools for the implementation of plan. Mr. Mayne concludes that "if the planner proceeds in ignorance of the human decision-makers, he is bound to fail with respect to having his plans translated into actuality."⁴

This view is pertinent because even when the plan is well conceived, logical and suitable for direct action, there always remains the problems of objections and support from the administrators of the plan. It is then to the advantage of the practical planner to anticipate the nature of these objections and to understand their causes as well as the reason for the support.

A plan, if it is to be effective, must also take into account the administrative structure of the government, or governments so that not only can the plan be developed but also the method whereby action dictated by the plan will follow.

Attention should also be paid to the division of powers between the legislature and the executives. For instance, if the legislature

4. Ibid, p.186.

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controls the great majority of the powers required for the introduction of a development plan, the plan must contain not only proposals to the executive but also the legislative background which is required in order to make a change in the existing legislature.

The practical planner must also give consideration to the allocation of responsibility among the various departments of the executive agencies. The reason for this is that the plan usually cuts across a variety of executive agencies and, therefore, if it does not contain elements for coordination it is bound to fail.

If proposals are made for a particular government agency to carry out a phase of the development plan, it is necessary that these proposals be consistent with the general approach of that agency and in general with the objectives under which they have been operating.

The quality of the staffs in the various government department should also be considered. If the staff is not oriented toward a concept of planning which is consistent with the general frame work of the development plan, it may be necessary for the central planning staff to work closely with the agency and actually take a more important part in the creation of the more detailed phases of the development plan than might otherwise be expected.

II - Factors that Have to Enter the Planning Process:
Designing a Development Plan.

Having analysed the human aspect of decision-making in planning the problem of designing a development plan is attempted from the stand-

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point of the role of development planning with respect to the utilization and creation of resources for development. The analysis will proceed as follows:

- A. Evaluating Potentials.
- B. Developing the strategy and Framework of the plan.

A. Evaluating Potentials.

The first step to take is to make a quick survey of the characteristics of the society and the economy. According to Mr. Mayne, the survey should be "geared to obtaining inventories"⁵ of the natural, human, and financial resources, and the productive capacity, the market and service industry potentials.

1. Natural Resources. In the case of natural resources, the availability of energy minerals such as coal and petroleum, and sources of raw materials such as forests, iron ore deposits, etc. will partially determine the potential for economic development. Accessibility and conversion possibilities must also be considered. For instance, are there good hydro-electric power sites available and are they located far or near to urban, human resources, and transportation centers? What are the likely costs of these potential power developments and how long would it take to put them into operation? What type of subsidies (if any) would they require?

Next comes the resources of agriculture. Surveys of land resources, cadastral surveys, relationship between the number of people

5. Ibid.

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and the land, will enable the planner to gain at least a rough idea of the potential of agriculture into actual output frequently depends upon the nature of land tenure. If a considerable amount of idle land is in the hands of few individual owners these resources may never be put into operation unless the estates are broken up and converted into current use. On the other hand, farms which are too small do not lend to efficient production.

2. Human Resources. Modern economists consider the human element as one of the most important resources of a country. Emphasis is being given to two aspects of this resource. One is the quantitative aspect, particularly in relation to the natural resources available for development; and the second is in terms of the quality, particularly with reference to creation of new types of industrial activity in competition with the advanced economies.

With respect to the quantity of employment, sufficient information should be available to the practical planner so that he can have an understanding of the amount of human resources which could be diverted from present uses to new occupations. The practical planner must also consider the question of the relative price of labour in terms of its productivity. For instance he should ask himself: is the price of labour in terms of output sufficiently low so that production may penetrate export markets despite tariff walls, as is the case in Japan; or, is the price of labour when related to its productivity so high that it must depend purely on protected local markets for an outlet of its production?

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With respect to the quality of the human resource, educational attainment is probably the most important feature. Education is, from the point of view of the beneficiary, a consumption good but viewed from the economic point of view, it contributes to an increase in productivity. It is believed that one of the greatest assets that Dahomey possesses is the relatively high level of education of its peoples as compared with most African States. However, with the actual rate of economic development, one of the dangers in the near future is that this high level of educational attainment may not be in tune with the rate of economic development and growth and may cause social damage. It is true that to transfer a society from an economy of relatively low development to one which is technically advanced one is probably determined by the ability to transform its labour force. One might argue that this might not take years but generations. But assuming the actual budgetary constraint how many generations will be needed to eliminate the old methods of doing things? Perhaps the solution to the problem concerning the quality of the Dahomey's labour force is to be found not only in formal education but on-the-job training, and above all, in regional economic integration.

3. Financial Resources. The potential financial support available to the government and private sectors is also one of the most important resources. In planning a development programme it is necessary to analyze the financial resources which will be available in the future.

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4. Productive Capacity. The objective is to obtain some clues as to the relationship of the existing productive capacity and the nature of its future expansion. The first question to ask is whether the economy is an open or a closed economy. In other words, the question is: is there a potential for quick expansion of exports or must internal growth be relied upon to develop productive capacity?

Professor Mayne suggests that in order to assess properly the potential for economic growth through expanding local or external markets, it is necessary to have, at least, a clue to the conditions regarding:

- a) "The development of the proper competitive know-how.
- b) The efficiency of manufacturing know-how.
- c) Transportation conditions.
- d) Reputation for meeting contracts.
- e) Reputation for meeting contract specifications as to time of delivery."⁶

5. The Market and Service Industry Potentials. The creation of market and service potentials is of great importance. For, if the country and the economy as a whole are to expand they must expand through the production of goods and services. The creation of wholesale and retail units through vigorous commercial activities is suggested alongside with adequate transportation facilities. International economic policy should be conducted to promote exports, so as to earn the foreign exchange necessary for the financing of the plan.

6. Ibid.

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Another feature of growth is the providing of supporting technical services and service institutions. To achieve development, service institutions should be geared to provide maintenance of equipment. For example, a modern and well built steel mill is likely to operate inefficiently if spare parts and technicians are not available for servicing the machinery. Once the mill is set up, facilities connected with the distribution of goods, such as warehouse for storing and holding merchandise produced in large quantities become vital. Finally, professional services, such as legal, accounting, sources of credit information, must all be expanded to meet the growth of the economy.

B. Developing the Strategy and Framework of the Plan.

1. The Dominant Thrust of Development. Because of limited resources, physical, and human as well as financial, it is necessary to translate the information obtained in the evaluation of potentials into a strategy and "to determine the nature of the principal thrust which will be attempted in the development plan."⁷ The question is: What should be the principal focus? Should it be emphasis on infrastructure, such as roads and ports? Should it be in terms of development of human resources - specialised or general? Must the people be moved to areas which are likely to be more productive? Should the productive capacity be geared to import substitution or should it be geared to export development? Should the concentration be in terms of the private sector

7. Ibid, p.186.

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or should it be in the public sector? What should be the relative importance of economic development as compared with social development? It is not easy to determine the choice of emphasis scientifically. It is at this point that planning becomes an art.

2. The General Framework or Scaffolding. The evaluation of potentials for development planning serves two purposes. First, it provides a preliminary diagnosis of the situation and enables the advisors to indicate to the decision-makers which sectors, functional and geographic, have the greatest potential for growth. Second, it enables "the quantitative forecasting of growth potentials in such a way that the other operating functions of development may be implemented with continuous guidance given to the decision-makers within an integrated planning process."⁸

The action taken by the government with respect to the findings in the evaluation of potentials particularly with respect to the utilisation of financial, natural, and human resources, takes place afterwards. Therefore, if there is to be an effective basis for government decisions, it is necessary that the decision-maker should have knowledge of future government programmes and actions which will have an influence on the changing structure of the economy and society. This requires knowledge about the type of profile which will be projected. Two basic approaches to the building of economic and social models and projections are usually used:

8. Ibid, p.18.

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"One method is to draw a picture of what is desired for the future without paying too much attention to the feasibility of achieving such an economic and social model. This procedure attempts to find, a series of incentives and programmes which will accomplish the goals."⁹ The approach is based on "the belief that with economic and other forms of planning it is possible to accomplish most of the desired objectives."¹⁰

This approach, however, would tend to generate claims on scarce resources far in excess of the available supplies as decisions would be made on the basis of fictitious possibilities. The result may be a misallocation of scarce resources to the point where inefficiency and loss of output may occur.

Unlike the first method, the second approach does not start from an "a priori" picture of the end result but analyses the developments which have been occurring and estimates the potentials of growth which are likely to exist. "The incentive programmes are then tailored to fit the present and foreseeable circumstances. They are used to foster the probable developments which are considered more desirable. If the economic and social projections reveal developments likely to occur, but which are not considered desirable, then an analysis of forces which are required to alter the course of development must be developed. Once this

9. Ibid.

10. Ibid.

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is known, the programmes and incentives to accomplish this alteration can be brought to bear on the future progress of the economy."¹¹

This method is realistic and has a greater chance of success because it is built on forces and potentialities which are already under way and whose development can be foreseen. It will then make it easier for the government to provide for the setting which will enable the desired growth to take place and would thus better serve the planning of government programmes.

III - Planning in Relation to Obtaining Financial Aid

From the point of view of obtaining loans a National Development Plan serves two purposes:

1. To identify the programme which will most rapidly achieve the economic, political and social objectives of the country and its people.
2. To provide the lenders with an overall picture of the future conditions of the borrower, together with the actions expected to undertake in order to make the operation a success.

To satisfy these purposes the plan must (A) contain certain elements (B) pass certain tests to obtain financing.

A - Required Elements in a National Development Plan.

If a National Development Plan has been prepared for a country, it should contain the elements needed by the bankers and other lending

¹¹. Ibid.

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agencies to determine whether they are willing to loan funds to the country and on what basis.

It is then necessary to provide informations concerning what economic and social benefits will accrue from the projects or programmes. Financing possibilities must also be considered. For example the proportion from the private sector and the amount from the public sector to be anticipated as well as the funds which will be required from outside the country should be indicated.

Schedules of repayments of the loans should be specified together with an indication of what steps will be taken to ensure that the financial resources available to the country particularly in the public sector will not be wasted. Plans as to steps being taken to provide for the operation of the projects after they are completed should be specified; for example the provision of teachers for schools and nurses for the hospitals should be revealed.

As a whole, the determination of whether the national development plan is to be considered as an adequate basis for international financing is based upon the following questions:

1. Is it sufficiently comprehensive?
2. Is it realistic and sound?

To answer these questions the plan will probably indicate that there are several levels of financing to be implemented.

At the lower level the project is in the private sector. The earning capacity of the project and of the company operating the project

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will be the basis for deciding whether it is a financially sound project from the standpoint of the lender. If it is a government corporation, it will be treated in the same manner. If it is a project which does not create its own revenue, then it is necessary to look at the general budget of the country for financial soundness.

At the next higher level, one looks at the summary of all development projects, some of which may be physical in nature, and others which may indirectly be physical.

At the broadest level of financing one looks at the sales and expenditures of the entire economy as they relate to the rest of the world. In the long-run the ability of a country to repay its external debts will depend upon its ability to earn the currency for the repayment of debt. In order to increase its earning capacity it must either reduce imports or increase exports. The National Development Plan will provide the lending agencies with the information needed to determine the magnitude of the foreign exchange required. In this respect, one of the aims of the National Development Plan is to develop programmes and projects which will close the gap between supply of and demand for foreign exchange.

B - The Requirements to obtain Financing.

According to Professor Mayne, the general requirement to obtain funds is the economic and technical soundness of the activity to be financed.

1. Technical Soundness. A project will be considered technically sound if:

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- a) "all pertinent technical aspects of the project have been taken into account;
- b) the planned construction or procurement conforms the accepted engineering standards and practice, suitably modified in the light of the actual stage of development of the applicant's country, and its projected rate of development;
- c) the estimated cost of the project is as low as any other reasonably available which would produce the intended results."¹²

2. Economic Soundness. A project will be considered economically sound if the resulting economic benefits over a stated period will equal or exceed the total costs of construction, maintenance and operation over the same period.

a For industrial projects: The revenue must be sufficient to cover fixed charges, amortizations and maintenance and operating costs, and in addition produce an adequate return on the investment.

b Non-revenue producing projects: There must be a reasonable indication that the value of the benefits to the national economy will equal or exceed the total costs of construction, operation and maintenance, or (if applicable) the service charge of the loans.

12. Ibid.

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c Non-profit revenue producing projects. Non-profit projects which produce revenue may or may not be completely self-liquidating. The total revenue and other benefits which can be evaluated must exceed the total costs over the life of the project.

d Completed Engineering Plan. The engineering aspect of the analysis provides the basis for a reasonably firm estimate of cost. The analysis includes:

- (i) preliminary investigations and surveys to identify all significant technical problems, establish the location and for these general criteria and standards of construction which will have a major effect on the final cost;
- (ii) justification for the specific location, criteria and standards recommended as compared with available alternatives;
- (iii) preliminary designs in sufficient detail to permit a reasonably accurate estimate of work quality;
- (iv) an analysis of the construction operations in sufficient detail to provide a sound basis for the cost estimate.

e Reasonably firm estimates of cost. In addition to the cost of construction the cost estimate should indicate the cost of the final engineering, designed supervision of construction and the operation and maintenance of the facility for a forward period of not less than ten years.

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f Organization for operation and maintenance. The final qualification for loans consists in the ability of the plan to provide for competent management, necessary personnel, equipment, and materials required for effective operation and maintenance.

Conclusion

The merit of the analysis presented by professor Mayne is that he has shed new light on the planning concept: Economic Planning is both an art and a science. As a science it provides guidance and principles to solve economic problems. This is achieved through logical analysis and clear establishment of alternative courses of action, based on surveys of relevant data and through systematic and comprehensive assessment in the light of future policies designed to carry out the plan. According to professor Mayne, the science aspect must not neglect the art aspect. If economic planning is to bear fruit, if it is to solve the problems of economic development and growth it must consider the administrative, political, normative and human aspects of decision-making.

CHAPTER IITHEORIES OF ECONOMIC PLANNINGPART 2: Contributions of W. Arthur Lewis

Professor Lewis suggests that the making of development planning begins "stimultaneously at its two ends; at the individual project level and at the macro economic level. Then the results of these two are adjusted to one another."¹ The technique used in this exercise consists in projection "what the national income will be sector by sector, at the end of the plan period. This is compared with national income at the beginning, and in the more elaborate models, with income in each intervening year."² An examination of Lewis' contribution reveals that it covers the following:

1. The Stages of Planning
2. The Capital Budget
3. The Capital Requirement Budget for Commodities
4. The Ten-Year Capital Budget
5. The Flow of Funds Table

1. The Stages of Planning

Professor Lewis, like Professor Tinbergen as will be realized later in the chapter, uses the stage approach in his analysis. He distinguishes five stages.

The first stage is to estimate the amount of the national income at full employment and to fit into it the various requirements for consumption, investment, and public expenditure.³

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1. Development Planning: The Essentials of Economic Policy,
op. cit., p.147.
 2. Ibid., p.148.
 3. See Table 2: "The Ten-Year Capital Budget".

Table 2

THE TEN-YEAR CAPITAL BUDGET
(expressed in million of units of accounts)

Agriculture	315
Industry	405
Power	78
Construction	97
Transport and Communications	375
Housing	375
Public Services	375
Other Services	238
Stocks	120
	2,378

Source: Lewis, W. Arthur, Development Planning,
The Essentials of Economic Policy,
George Allen and Unwin Ltd., London,
1966, p.214.

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The development plan can then be viewed as a "master table" which proposes the distribution of national income between these sectors. From the master table follow other tables which translate it into details.

The consumption table breaks up the global sum, and shows first how people would like to distribute their expenditure between different commodities and services. It estimates "how much of each of these commodities is likely to be available, from home production, from imports and from stocks, with a view to spotting major shortages and surplus."⁴

Similarly, the investment plan distinguishes the projects that are to be undertaken; "estimates the demands on various raw materials, types of plant, and types of labor; sets these demands against likely availabilities; and spots major surpluses and shortages."⁵

From these, four other sets of tables follow. These are: a budget for each industry - "which seems likely to be in serious disequilibrium"⁶; a budget for each raw material that will be in short supply, setting demands against availabilities; a manpower budget, and a foreign trade budget.

These subsidiary budgets - for unbalanced industries, scarce

4. Lewis, W. Arthur, The Principles of Economic Planning
George Allen and Unwin Ltd. London, 1952, p.108.

5. Ibid.

6. Ibid.

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raw materials, manpower and foreign trade - provide the information needed at the second stage of planning, "for they show where the gravest shortage will be, and therefore where action is most needed. This action will be of two kinds. First, there will be action to increase supply; this is the most important kind of action, and the primary justification of planning. The secondary justification, and the second kind of action, which is needed only if supply cannot be expanded sufficiently to meet the demand, is to have some means of allocating the short supply, whether by price, or by quota."⁷

This leads to the third stage in planning which is to fix the targets by estimating the level of equilibrium that the preceding actions will achieve. A target in the sense used here is "the figure it is proposed to achieve as a result of the action that is contemplated."⁸

The fourth stage in planning is to publish the budgets in which they are embodied with as much data as the public needs in order to understand and to criticize what the government is trying to do. The document presented to the public at this stage should show not only what targets are proposed but also how the government proposes to achieve them.

The fifth and final stage of planning is to put into operation the measures needed to achieve the targets. For, to draw up and

7. Ibid.

8. Ibid., p.109.

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publish a list of targets is not to plan. The real planning comes when the government takes action to realize these targets. Insisting further on the vital role of policy, in plan implementation, he warns that "the recent trend towards putting more figures into Development Plans has unfortunately tended to obscure the fact that what matters in planning is not mainly figures but policy. It is possible to write a good Development Plan without using any figures, by concentrating on policies which will stimulate an upward movement of the economy. It is also possible to write a Development Plan which is mathematically consistent, but which nevertheless achieves nothing, because policies are lacking."⁹

2. Capital Budget

A capital budget is constructed to test whether the expected capital to be available will be adequate for the postulated increase in income, and also to make tentative allocation to the different sectors. The estimate should cover the plan period. For that reason, it is necessary to begin by projecting gross domestic product and savings in each year. For this purpose, the following assumptions are made: G.D.P. grows at successive annual rates of 3.0, 3.5, 4.0, and 4.5 percent during the first four years and it is then kept at the latter rate for the next six years. Starting with 1,030 units of money of G.D.P., 155 Capital Required, 146 Domestic Savings and 9R Foreign Gap in Year 1, the following table can be constructed:

9. Development Planning: The Essentials of Economic Policy,
op. cit., pp. 22-23.

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Table 3CAPITAL REQUIRED AND AVAILABLE

<u>Year</u>	<u>G.D.P.</u>	<u>Capital Required</u>	<u>Domestic Savings</u>	<u>Foreign Gap</u>
1	1,030	155	146	9R
2	1,066	176	154	22R
3	1,109	200	162	38R
4	1,158	226	171	55R
5	1,210	236	182	54R
6	1,265	247	193	54R
7	1,322	258	204	54R
8	1,381	269	215	54R
9	1,443	281	228	53R
10	1,510	294	243	51R
	12,494	2,342	1,898	444R

Source: Lewis, W. Arthur, Development Planning: The Essentials of Economic Policy, Allen and Unwin, Ltd., (London, 1966), p.211.

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Table 3 shows that the capital required rises from 15.04 per cent of G.D.P. in Year 1 to 19.5 per cent in Year 10. Domestic savings grow steadily from 14.56 per cent in Year 1 to 16.1 per cent in Year 10; its progression is 14.5, 14.6, 14.8, 15.0, 15.2, 15.4, 15.6, 15.8, 16.1. The percentage dependence on foreign aid (the difference between Capital Required and Domestic Savings) reaches its maximum (55R) in Year 4. The absolute dependence begins to decline before the end of the ten-year period, and if the savings ratio continues to grow adequately, the economy should be nearly self-sustaining in terms of its capital requirements by the end of a further period of ten years.

3. Capital Required for Commodities

According to Professor Lewis, the capital required for commodities consists of two parts; that which is required for the increase in outputs, and that which is required to replace capital in use in Year 0 which falls ready to be replaced during the ten-year period. Re-grouping agriculture into large-scale and small-scale, and industry into light and heavy, a tentative calculation is presented in Table 4 on a hypothetical basis.

The first two columns of table 4 show the outputs expected in Years 0 and 10. The third column Increase - is the difference between those two. To arrive at the next column it is assumed that 60 per cent of the capital existing in Year 0 will fall due for replacement during the ten years; column 1 is therefore multiplied by 0.6. This assumption is not applied to small-scale agriculture; here it is

Table 4

CAPITAL REQUIRED FOR COMMODITIES

	<u>Output</u>		<u>Increase</u>	<u>Replace</u>	<u>Total</u>	<u>I.C.O.R.</u>	<u>Capital Required</u>
	<u>Year 0</u>	<u>Year 10</u>					
Agriculture, large scale	90	140	50	54	104	2.0	208
Agriculture small scale	380	480	100	114	214	0.5	107
Industry, light	70	146	76	42	118	1.6	189
Industry, heavy	40	70	30	24	54	4.0	216
Power	5	15	10	3	13	6.0	78
Construction	65	123	58	39	97	1.0	97
	—	—	—	—	—		—
	650	974	324	276	600		895

Source: Lewis, W. Arthur, Development Planning: The Essentials of Economic Policy,
Allen and Unwin, Ltd., (London, 1966), p.212.

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assumed that producers of 30 per cent of the output of Year 0 will adopt new capitalistic techniques, so that the multiplier in this row is 0.3. The column headed "Total" combines the increase in output with the amount of output whose capital must be replaced. This in turn is multiplied by its appropriate "Incremental Capital - Output Ratio" to give the total capital requirement in the final column. It is to be noted that the Incremental Capital - Output Ratio, like all the figures in the table, are imaginary.

Equally tentative allocations are made to the service sectors. For this, the following assumptions are made: an average rate of investment in transport and communications is about 3 per cent of G.D.P., the public service also takes about 3 per cent of G.D.P.; other services, including commerce, absorb about 10 per cent of gross capital formation. Using these ratios, a capital budget is presented in Table 4.

5. The Flow of Funds Table

The Flow of Funds table is required for a development plan because it estimates how much money the government will have to channel into the private sector through financial intermediaries and how much finance the government itself is going to require, how it expects to raise it, and how it expects to spend it.

Table 5 is similar in pattern to an input-output matrix. Columns 1 to 9 are to be read vertically to find whence each sector

Table 5.
FLOW OF FUNDS

39B

USES / SOURCES													
	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Farmers	-	-	-	-	30	30	340	-	-	-	50	-	420
2. Business	-	-	-	80	30	110	-	740	-	195	55	-	1,100
3. Households	-	20	-	10	50	80	-	-	-	190	220	-	300
4. Government	-	-	-	-	100	100	-	70	83	-	50	385	878
5. Financial	100	50	40	40	-	230	-	-	-	-	-	-	230
6. Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	2,928 (1)
7. Foreign	20	180	-	224	20	444	-	-	-	-	-	-	-
8. Depreciation	100	350	60	90	-	600	-	-	-	-	-	-	-
9. Savings\$	200	500	200	454	-	1,334	-	-	-	-	-	-	-
10. Total	420	1,100	300	878	230	2,928 ⁽¹⁾	340	810	83	385	375	385	2,928

(1) Only the subtotals falling in the matrix but not the total. For explanation see test.

Source: Lewis, W. Arthur Development Planning: The Essentials of Economic Policy, Allen and Unwin, Ltd.
London, 1966, P.216

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derives its funds, and rows 1 to 12, horizontally to see how the funds are used.

The table shows the extent of the burden that falls on the government in financing economic development. In this example, the government capital account is 878. It gets 60 per cent of this from its own savings, 26 per cent from foreign grants and loans and the remaining 14 per cent from other sources. Farmers save and borrow abroad (320) less than they invest in farms and houses (390). The business community saves and borrows abroad more than it invests in its own enterprises (1,030: 990).

The table matches the various sources of funds with the uses of these sources which are divided into Savings, Depreciation, and Foreign aid (including grants, loans and direct investment). Similarly, the main investing sectors are: Farmers, Business, Households, Government, and Financial institutions (banks, savings banks, insurance companies, agricultural credit societies, etc.). The total 2,928 shown under row 13 column 6 is the amount of funds invested in the economy.

It is equal to, adding vertically down, the amount shown under row 6 column 10. This means that the 2,928 originates from the five investing sectors and from the main sources of savings. Thus the total amount of funds saved by the economy is used up by the investing sectors. The saving-Investment equality is thereby ensured.

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In conclusion, Professor Lewis' most significant contributions to the field lie in his emphasis on policies to implement the plan and in a series of arithmetical tables, illustrating the statistical framework of the development plan of an imaginary underdeveloped country. Working through these tables, the student is introduced to some basic techniques of planning: such as the testing of the plan at the macro economic and sectoral level, the use of input-output, the capital budget, the flow of funds, etc. Further, Lewis puts forward the convincing arguments that the purpose of the macro economic planning is to help to "ensure that the plan is internally self-consistent; that the resource requirements of the proposed income in private consumption, public services and investment do not add up to more than is available; that the expected increase in output of individual sectors are consistent with expected increased in inputs; that demand and supply will balance, in the sense that what people will demand is what the system will produce; that imports will not grow faster than exports; that the expected rate of growth will be consistent with available skilled manpower and capital."¹⁰ He advocates, in other words, a balanced growth approach to developmental planning.

10. Ibid., p.147.

CHAPTER IITHEORIES OF ECONOMIC PLANNINGPART 3: Selected Contributions of Professor Tinbergen

In this thesis only those aspects of the contributions which have particular significance to economic planning in Dahomey are examined. These are:

- I. The Four Stages of Development Planning.
- II. Policy Objectives of The Plan.

I - THE FOUR STAGES OF DEVELOPMENT PLANNING

Professor Tinbergen suggests that activities involved in the complicated process of estimation of the plan figures be carried out in four stages:

- A. "The macro stage."
- B. "The sector stage" where distinction is made between the main sectors or a certain number of sectors of the economy.
- C. "The project stage" where single projects are the subjects for discussion and for investigation.
- D. "The final stage"¹ where all the figures are brought together by the government and passed on to the parliament.

A. The Macro-Stage

1. Functions of the macro-stage. The task of the macro-stage of planning is to think about some of the most important aspects of the planning and

1. Tinbergen, Jan., Central Planning, Yale University Press, New Haven, 1958, p.85.

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of the developmental process e.g. the rate of growth of the country that is aimed at and the level of investment that will be necessary. This stage makes intensive use of the Harrod-Domar model involving capital output ratio concept and rates of savings of the country.

2. Activities involved in the macro-stage. Activities to be carried out at the macro-stage are:

- (a) "Instruction of planning bureau by government in aims and means of policy.
- (b) Collection of statistics and forecasts on data.
- (c) Macro-forecast.
- (d) Confrontation with aims.
- (e) Macro-plan."²

These activities are straight forward except (c). The macro-forecast, indeed, represents the most important of all these activities.

It consists in:

- (i) Choosing a realistic rate of growth for the country;
- (ii) Selecting the capital output ratio; and finally in
- (iii) Making decisions with regard to exports and imports, the size of public sector and the size of public investment."³

In what follows, only the capital output ratio and the rate of growth are discussed because the decisions with regard to export-import and the size of public investment are often more guided by politics than

2. Ibid., p.88.

3. Ibid.

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by scientific analysis.

3. Capital Output Ratio. Intensive use is made of the Harrod-Domar model at the macro-stage of economic planning. One aspect of the main idea of the model can be explained as follows. A society has a certain income, Y . A portion sY of this income is saved and, in equilibrium invested: $I = sY$ where s is the propensity to save. This investment results in new capacity. This increases production and hence, income per unit of time that is $Y = \frac{I}{K}$, where K is the capital output ratio. Therefore, $Y = Y \times \frac{s}{K}$ and $\frac{Y}{Y} = \frac{s}{K}$ which means that if capacity is to be fully utilized and if saving-investment equilibrium is to prevail, income will have to grow at a rate equal to the quotient of the propensity to save by the capital output ratio.

However, a distinction must be made between the capital output ratio for a national economy and the capital coefficient for a particular sector. The first is a macro-concept. It can be derived from the equation:

$$\frac{Y}{Y} = \frac{s}{K} \longrightarrow Ky = sY$$

Hence $K = \frac{sY}{y}$

This ratio means that the capital output ratio for the national economy is equal to the portion of income invested or the total amount of investment divided by the income per unit of time. Thus if an investment programme of 6,100 million francs results in an increase in National Income of approximately 2,800 francs during the period of the plan,

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then the national capital output ratio would come to about 2.2: 1.

As for the second concept, the capital coefficient for a particular sector or industry, it is a micro-concept and essentially technical. It can be expressed as a ratio of money amount. Assuming that 55,100 million francs are needed for the production of 550 units of a particular product. The capital coefficient is $\frac{55,100}{550} = 8.2$. Thus as understood, the capital coefficient for a particular sector can be defined as the quantity of capital needed for the production of a unit of product.

Sometimes instead of using the capital output ratio one might use the capital per head concept i.e. the capital needed per person employed in certain activity. These figures are found more appropriate because for a given country the number of persons to be employed is known whereas the quantity of product is not known beforehand.

Independent of the figure used - whether the capital needed for the production of an unit of product concept, or the capital per head figure - the capital coefficient is found to be different for different industries. The highest ratio is found in the construction industries both residential and commercial where it is around 10 or 12. It is in the neighborhood of 4 or 5 in transportation and communication. However, it is extremely low even below one in some service industries.

4. How to choose a realistic rate of growth. In selecting a rate of growth for the economy of a country, an important thing to keep in mind is what the figure means in terms of growth of the income per head and

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the impact of the rate on the people's well being. Consequently, attention should also be paid on rates of increase growth in population growth. If the rate of increase in population is, for instance, 1% and the rate of growth is 3% in total product, then there will be 2% increase for income. Suppose the aim is 3% increase in income per head and population grows at 3%. Then the rate of growth in national income should be at least 6% per annum.

Suppose 6% rate of growth is chosen and 4% for the capital output ratio. The increase of national income would be: $6 \times 4 = 24\%$.

If 5% can be expected, in the form of foreign aid, the question arises: will the country be able to save up 19% of its national income? If the country will not be able to do this the initial estimate will have to be revised downwards until a satisfactory rate of growth is reached. For example if 15% can be saved, then the rate of growth will have to be 5% per annum.

B. The Sector Stage

Two major questions have to be resolved. The first concerns the selection of sectors for development. The second deals with the techniques of assessing the production programme required. However, only the former will be presented here, leaving the latter to be attempted in Chapter IV Techniques of Planning.

The number of sectors will depend on the nature of the economy. For example Turkey had 20 sectors and this number depended on how the

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Turkish government saw the future of that country and what the current structure of the country was.

The number of sectors selected, the next step to take is to differentiate the "national" from "the international industries". A "national industry" is an activity the product of which cannot be transported across the national frontiers; e.g. building, domestic trade, internal transportation and a number of services. In contrast, an "international industry" is an industry where the products can be transported from one country to another i.e. most activities belonging to the export sectors.

The reason why the distinction between national and international industries is made is the following: once the rate of growth of national income is selected, a conclusion can be made with regard to the development of national sectors for these are the sectors for which demand and supply must coincide. This is done by multiplying the rate of growth of national income by the income elasticity of demand. Thus suppose the rate of growth of national income is 6% and the income elasticity of a particular product is 1.3. Then the rate of growth in the particular sector will be 6 times 1.3 or 7.8%. The procedure is however, less scientific in the calculation of the rate of growth in the international industries. What is usually done in this case is to find out how these sectors would have to develop if the existing structures of the country were to persist. In the main, this exercise will show the planners where they are running into problems either as far as the

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balance of payments are concerned or the employment situation or any other policy objectives of the plan. This is helpful in raising a number of questions which will be answered at the project stage.

C. The Project Stage

The project stage is by far the most important stage of development planning. It consists of:

1. "Issue of directives to cells - or lower units of the planning machinery - e.g. a committee;
2. Project appraisal by sector authorities;
3. Project appraisal by center;
4. Devised sector -cum- region plan;
5. Consultation with regions;
6. Changes;
7. Submission to government."⁴

This list is by no means rigid. Numerous examples of this sort are conceivable. "Thus if certain well defined regional targets are set, regional planning of a macro-character may be made also in the macro-phase."⁵

In general, the main aim of the project stage is to find out what are the comparative advantages to the country, in which activities does the country excel, in which activities will the country be able to

4. Ibid., p.85.

5. Ibid.

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compete in world markets either by export or by import replacement or substitution.

In providing answers to these types of questions attention should be paid to what professor Tinbergen calls

1. the "learning curve;
2. the optimum size for project;
3. the contribution to the national interest, reflexion of policy aims, and finally evaluation of investment requirement."⁶

1. By learning curve he means the fact that after a certain number of years of experience, the efficiency of a given enterprise is likely to increase as more is known about its behavior and the problems it faces.

2. Optimum size for projects. It is the size that makes it possible to compete in the international market. Optimum size means the best size that there is.

Attention is being increasingly paid to this concept in the planning of the less developed nations because the markets in many of these countries are too small to achieve economies of scale.

3. Contributions to the National Interest. By the contribution to the national interest, professor Tinbergen has in mind the fact that answers should be provided to such questions as: is the project attractive to the private sector? What is the project promising? What is the contribution to national income?

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II - REFLEXIONS OF POLICY AIMS OR POLICY OBJECTIVE OF THE PLAN.

Reflexions of policy aims means the contribution of the project to the aims the government has set for itself. The criteria used in assessing this is the "weighted average" of the contributions to the aims of economic policy. Thus suppose the government has gone in for three main aims:

- (1) to increase national product;
- (2) to increase employment; and
- (3) to improve the balance of payments;

the criteria will be what the project can contribute to national income, employment, and balance of payments. The word average means the importance attached to the aims; it is the ratio of total yield of the project by the total investment made.⁷ The procedure used to arrive at such a ratio is called cost benefit analysis which will be discussed in Chapter IV, Techniques of Planning.

7. See equations page 83.

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This chapter offers some comments on the contributions made by professors Mayne, Lewis and Tinbergen by attempting an inductive exposition of the concept. It also makes the proposition that the Planning Concept should be incorporated in the doctrines of Balanced and Unbalanced growth for a more meaningful understanding of the Growth Phenomenon.

PART 1: The Dual Nature of Economic Planning: An Inductive Exposition.

On the basis of "practical methodology of planning"¹ professor Mayne advances the view that Economic Planning is both an art and a science. This duality of the concept can also be traced from the planning models of both developed and less developed nations. The approach used consists in assessing thirty-one models covered by an

1. A distinction should be made between "practical planning methodology" which in many cases does not involve a model of the economy at all and "the methodology of planning models" the foundation of which rests on models with economic relationship, demand function, input-output, production function. While the former proceeds by empiricism, the latter uses scientific methods. See "The Methodology of Planning Models" by Richard Stone and Colin Leicester in National Economic Planning, Millikan, Max, F., (Editor), National Bureau of Economic Research, Columbia University Press, (New York, 1967) p.17.

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"international survey of the methodology of planning models"² and conducted by the Department of Applied Economics of Cambridge University in England. Although the art and science aspects are blended, they will nevertheless be treated separately for analytical purpose.

1. Is Economic Planning A Science?

The survey of the thirty-one economic models covers Belgium, Britain, France, West Germany, Ireland, Italy, Norway, Portugal, Sweden, a combined model of the six member countries of the European Economic Community, a combined model of thirty-nine countries submitted by the International Monetary Fund, the communist countries of Czechoslovakia, Hungary, Poland and Yugoslavia, and other areas such as Argentina, India, Israel, Egypt and Turkey. A copy of the questionnaire containing 18 questions is attached as Appendix A. Appendix B contains the list of the research directors participating in the survey. What follows is an attempt to generalize a number of methodological issues.

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2. The reason for making the distinction is the following: Professor Mayne's analysis was based on a rather intuitive generalization supported by the case of Puerto-Rico and reached the conclusion that planning is both an art and a science. He starts from the general to the particular. Therefore, he uses a deductive method.

The approach attempted here is based on an examination of thirty-one models actually in use throughout the world - assuming that these models are a representative sample - and reaches the same conclusion. This is an inductive method because the examination moves from the particular to the general.

The objective sought in establishing this alternative proof is to conclude that both the deductive and the inductive method should complement each other so as to provide a sound proof of the duality of the planning concept.

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Assumptions. Information with regard to the role of assumptions in model building formed the subject of question 8. With few exceptions, most models indicated that planners made assumptions with regard to the rate of growth of the population, of the labour force and about the rate of technological progress. Some of the planners also made assumptions about the rate of growth of consumption, of gross national product and changes in the balance of payments over the long term.

Accounting Framework of the Models. Information on the economic aspect of accounting in the models was sought on various issues in question 7.

In part (a) the question was: "How many classes of accounts do you distinguish?"³ All western countries engaged in model building answered that their models utilized a social accounting framework.

However, the answers to part (b) of the question did not bring a clear picture of the accounting structure underlying the models. Nevertheless, it emerged that input-output accounts with medium sized tables distinguishing some twenty to fifty branches of production were employed.

As regards capital expenditure, the question was whether gross investment was divided between (i) "Depreciation and net investment (ii) Replacement and extensions."⁴ Fourteen models contained (i) in their reply and twelve answered affirmatively to (ii). From the replies

3. National Economic Planning, op. cit., p.24.

4. Ibid., p.18.

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to part (f) of the questionnaire it was found that a distinction between complementary and competitive imports was used in about half the models.

In reply to part (h) of the questionnaire i.e. whether the existing national accounting statistics proved adequate for model building purposes, one-third answered in the positive with the remaining answering "not entirely" or "no".

Role of Economic Relationship in Model Building. This was the subject of question 9. The following were the findings:

- (a) Demand functions for private consumption appear in almost all the models. Similar functions for public consumption were mentioned. Demand functions for imports appear in about half the models, for exports in about one-third.
- (b) Most models use input-output relationship relating either to domestic intermediate production alone or to this plus imports.
- (c) Connection between labour and output and between capital and output by means of coefficients were frequently mentioned.
- (d) One-third of the models made use of explicit saving functions.

Estimation. About half the sample used tabulations of census data and special sample surveys as bases in estimating parameters. In almost all cases econometric analysis was used. Everyone made use of

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time series. Over two-thirds of the sample used least square methods of estimation. Over fifteen models measured changes over time by means of input-output coefficients.

Computation. Over twenty-four models indicated that they used electronic methods. In about one-quarter of the sample the programmes were written in stages; the maximum number mentioned was eleven.

The question arises: What lessons can be learned from the results of the survey?

Firstly, there is ample evidence of a good deal of model building activity all over the world. The models are in a number of instances incomplete but work is being continued to expand and improve them. The trend, therefore, is towards the provision of more sophisticated and reliable models.

Secondly, the survey also shows use of systematic data processing and application of theory and statistical methods to economic planning.

Thirdly, the models are computerized i.e. they are so constructed that they can be "fed" into large, high speed computers. The development of the use of computers is a great aid to the calculation required in solving the multi equation systems of a large model.

Fourthly, some models are built for government decision-making purposes particularly in the field of education, medical care, and the provision of housing. The most recent development in models for

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planning is to be found in constructions which attempt to show the influence of the level of consumption on productivity. This development shows the increasing awareness of the fact that these socio-economic components of well-being have an influence on productivity and that consequently, they have to be integrated into planning.

All these are sign posts of scientific methods increasingly employed in the field of economic planning.

2. Is Economic Planning an Art?

In "The Methodology of Positive Economics" professor Milton Friedman defines an art as "a system of rules for the attainment of a given end."⁵ Following this definition, the art aspect of Economic Planning is examined.

(a) Planning Machinery in India and France. India is selected partly because of the federal nature of political and planning structures and partly because it was among one of the first under-developed countries who embarked on planning on a systematic basis. In the case of France, the selection is affected by the following considerations: (1) it is a developed country; (2) its planning machinery is that of a typical unitary state; (3) it is, after World War II, the first country in Western Europe to attack its reconstruction and development problems through a multi-annual plan; (4) Dahomey, fortunately or unfortunately, owes much of its administrative and planning structures to France.

5. Friedman, Milton "The Methodology of Positive Economics" in Essays in Positive Economics, Chicago University Press, Chicago 1953, p.34.

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India has one of the most extensive systems of planning at state, district and local levels among the mixed economy nations. Each state has a planning and development department usually under the direction of the chief minister of the state. The permanent secretary of this department is usually designated as the development commissioner.

The preparation of the state plan is the responsibility of the planning and development department which generally supervises its implementation through the various secretaries and heads of technical departments. Coordinating committees composed of secretaries and heads of department assist the department in its work. The planning and development department also coordinates district and village plans in its state and in many cases is also responsible for the state's community development programme. As the state's liaison with the central planning commission on planning matters, its task is to arrange for the preparation of suitable projects by the various state technical departments.

Below the state level are the districts, blocks and villages. At the district level the district officer is responsible for formulating the district plan and its implementation. He is usually assisted by a district development board or council, with the heads of the district department as members. In areas of the district where development projects are being carried out, there are block planning committee composed of the elected heads of village development planning.

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At the village level the planning committee is made up of villagers. Officials emphasize self-help activities to construct local public works with contributions of land, labour, or materials by villagers.

Thus from original formulation by the "Union Commission" through successive modifications to parliamentary presentations, plan-making in India is a responsible democratic process.

In France about 150 government economists, statisticians and functional experts constitute the nucleus of the planning operation called the "Commissariat du plan". After drawing up a preliminary draft based on Leontief's input-output table, the "Commissariat du plan" farms out the draft among 25 committees (as of the fourth plan) of modernization. These committees are composed of businessmen drawn from the individual industries affected, representatives from the various labour unions, academic and government experts. The preliminary draft, particularly its underlying input-output tables, is gone over by these groups. The figures are criticized and even revised on the basis of the specialized knowledge of the members of the committees. The awareness of the committee members that the plan, once formulated and approved, will serve as a basic framework for production and distribution for them and their customers, serves to bring sober reality to the proceedings.

The works of the committees are then re-assembled and revised estimates are worked out. The Commissariat passes on this document to

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the executive branch of the French government. After examination and approval by the "Conseil des ministres" the document goes to the Parliament.

Thus French planning is not just an exercise in programming, but the "provision of a flexible framework which is subject to change and adjustment on an ad hoc and empirical base."⁶

(b) Planning Procedure. Planning procedure is "the nature and sequence of the contacts which the office for economic planning establishes with the outside world."⁷

The first contact which a planning bureau usually makes with the outside world is with the government. This will be concerned with the general goals of the economy and the restrictions involved in the application of certain means. During this initial consultation, usually called the macro phase of planning, the growth rate that is aimed at in the national income is given to the bureau. This is usually the case in Turkey, Egypt and France.

In the middle phase of planning, contacts are established with the sectors and the regions. The contacts usually take the form of consultations with a number of ministries and a number of public bodies at the lower level. This is usually the case in countries with federal

6. "French Planning" in National Economic Planning, op. cit., p. 289.

7. Ibid., p.174.

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structure or with fairly powerful public bodies at the lower level. A new development in planning procedure today is that both employees' and employers' organizations are involved in the process. Such is the case in the Netherlands and in other Western European countries. In France and Turkey there are a number of committees, both permanent and ad hoc, each of which is responsible for a certain industry, and which maintains a general check on the development of that industry along lines laid down by the planning office.

When the plan is more or less ready, contacts of a more general nature take place, usually with a specially formed council or central planning committee, on which leading representatives of the government, ministers or senior officials serve.

The groups usually consulted are: in the macro phase, the first contact is with the government, next come the most important social groups - employers', employees', and consumers' organizations.

In the middle phase or "project stage" contacts are established with the representative of the large sectors and regions and with the ministries empowered with the administration of these sectors agriculture, transport, industry, trade, education and so on. Contacts are also made with the free organizations of farmers, contractors, industry, and trade unions. In the micro phase or "project stage" individual state services, large industries aiming to carry out projects and smaller geographical units will be contacted.

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To achieve success in all these contacts, to deal adequately with the complex administrative problems of planning procedure, and to handle skillfully the human relations involved in the whole process, constitute the art of economic planning.

CHAPTER IIITHE NATURE OF ECONOMIC PLANNINGPART 2: Economic Planning and the Theories of Balanced and Unbalanced Growth.

1. Theory of Balanced Growth

Balanced growth may take three forms: extreme, moderate and sophisticated.

The extreme view holds that net or gross investment or output should expand at equal rates in all sectors of the economy: industry, agriculture, and services. Professor Rosenstein Rodam argues that this will ensure the complementarity of the various sectors and professor Streeten says that this view is justified on the grounds that "all industries are more or less equally endowed with external economies"¹ and that "available resources should be equally dispersed among all industries to secure the optimum pattern of investment."²

The moderate view is that "all sectors should be expanded simultaneously not necessarily at equal rate."³

Sophisticated Balanced Growth doctrines rest basically on "external economies" caused by the effect of supply and demand. Some

1. Streeten, Paul, "Sectoral Allocation in Development Planning", Indian Economic Journal, July 1960, p.21.

2. Ibid.

3. Lewis, W.A., The Theory of Economic Growth, Allen and Unwin, London, 1955, p.283.

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authors, among which Nurkse, say that if many different and well-chosen activities are undertaken simultaneously, then overall supply will "create its own demand." Workers will buy each other's product, surplus capacity will be avoided, and the inducement to invest will be strengthened.

2. Theory of Unbalanced Growth

Contrary to the elegant prescription of Balanced Growth, Unbalanced Growth holds that net or gross investment, or output should grow faster in some sectors than in others. Advocates of the thesis, especially Hirschman, emphasize the historical failure of attempts made by some countries.

The two main processes of Unbalanced Growth are Streeten's "anabolism of wants" which exposes the demand side of the theory and Hirschman's "linkage" which presents the supply side. Hirschman,⁴ indeed, shows that the supply of a new input, or the demand for a new output, induces entrepreneurs to expand their activities. This process is often one-way, in the sense that a unit of investment in A induces a unit of investment in B, but not vice versa. Short-term spare capacity will focus entrepreneurial attention on crucial bottleneck and hence encourage long-term growth. Thus, a given initial investment devoted solely to A will create more final output than would any equal, balanced or income - elasticity-oriented distribution of that investment between A and B.

4. The Strategy of Economic Development, op. cit., p.65.

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Streeten's case for unbalanced growth,⁵ concentrates on the demand side. Accepting Nurkse's argument that lack of effective demand (too "small" a market) is the major restraint on investment, Streeten questions whether simultaneous expansion of many outputs is the best way to remove that restraint. He argues that certain key "wants" once satisfied engender new wants. So investment should be concentrated on few industries which aid in relieving pressure from effective demand.

3. Economic Planning, Balanced and Unbalanced Growth

Literature on economic development and growth have explained the growth phenomenon along the line suggested by these doctrines. However, the following shortcomings can be observed which impede adequate understanding of the growth process. There are:

First, the concepts balanced and unbalanced are not precise enough. The following questions may, indeed, be asked: What is to grow? Is it total income or income per head? Is it total output? Equally related to the issue is the problem of what is to be balanced or unbalanced. Is it distribution of income, internal consistency of prices, or balance of payment equilibrium? If it is investment, does it include physical increases in stocks or depreciation? Thus both doctrines are too general with regard to the objectives of growth and development.

Economic planning which consists in the evaluation of possibi-

5. Streeten, Paul, "Unbalanced Growth: A reply", Oxford Economic Paper, March 1963, p.24.

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lities and the selection of clearly established objectives, the formulation of appropriate policies for their realization, the execution of the plan and their periodic review and adjustment, will fill this gap left by the doctrines.

Second, with regard to the choice of investment mechanism, unbalanced growth seems to assume a certain relationship between the volume of investment and the nature and intensity of imbalance, such that the volume of investment is an increasing function, within certain limits, of certain types of imbalance. The determination of that function is not, however, explicit in the doctrine.

Development planning, as a science, particularly through the use of scientific models and devices such as capital output ratio, input-output and capital coefficient would facilitate the determination of the exact relationship between the investment and the imbalance.

The third criticism against balanced and unbalanced growth concerns the problem of objectives in relation to conditioning factors such as, for example, the initial condition of an economy, propensity to save, foreign exchange availability and the growth rate of population.

Since Balanced Growth makes no mention of all these conditions, it seems that the doctrine implies more or less perfect knowledge of all these constraints. Yet, these are the fundamental conditions determining the "natural rate of growth."⁶

6. Harrod, R.F., Toward a Dynamic Economic, MacMillan, London 1948, p.40.

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Economic planning as a science and art provides for the solution of all these economic relationships not only in the long run but also in the medium and short term.

As for Unbalanced Growth, it does not imply perfect knowledge of these constraints. It holds that the exact nature and intensity of the constraints can be known during a growth process and attributes economic "backwardness" to "insufficient number and speed of development decision."⁷ However, the process by which a "development decision" is made, is not determined by Unbalanced Growth.

Economic planning which makes it possible for the chief executive, the various departments of the government, labour, and business community to air their views on economic problems of long, medium and short term characters, provides the basic information for decision-making on a continuing basis. Economic planning therefore facilitates the most economic use of the scarce factor as explained by Unbalanced Growth, namely the ability to make developmental decision.

The fourth shortcoming of balanced and unbalanced growth doctrines concerns the treatment of the problem of choice of production technique. In fact, except for Lewis and Hirschman, the protagonists of neither balanced nor unbalanced growth have devoted any attention to the choice of production techniques. And even the treatment of the problem by Lewis and Hirschman is inadequate. Lewis, indeed, discusses

7. The Strategy of Economic Development, op. cit., pp. 50-57.

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this problem in relation to the over-populated, underdeveloped economies and mentions that since "the social opportunity cost of labour is zero, it would be advantageous for these countries to adopt labour-intensive techniques wherever feasible."⁸ Professor Bahatt of India comments on the issue: "He (Lewis) does not discuss the need for choosing production techniques ... in the light of not only the present but also the prospective social labour cost, during a specified time horizon."⁹

Hirschman also ignores this time dimension when he suggests that the choice of production techniques should depend on the nature and quantity of labour available.

Scientific planning which is "the combined application of mathematical economics and mathematical statistics to statistical data of an economic kind"¹⁰ not only provides for production techniques but also related the techniques to the initial conditions and objectives of the society, as a whole as well as to the volume and pattern of investment.

To sum up, there are many books written on economic development and growth. Yet, there is not to be found as yet in the literature a

8. Theory of Economic Growth, op. cit., pp. 351-2 and pp. 385-7.

9. Bahatt, V.V., "Some Notes on Balanced and Unbalanced Growth", Economic Journal, June 1965, p.95.

10. Tinbergen, Jan., Development Planning, George Weidenfeld and Nicholson Limited, London 1967, p.218.

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"general" theory of economic growth. General explanations are offered that growth may take place in two forms: one balanced and the other unbalanced. These doctrines in explaining the growth phenomenon have, however, left unanswered the important problems of the objectives of growth and development, the determination of these objectives in relation to the initial conditioning factors of the economy, the choice of investment mechanism, and the choice of production techniques. Consequently, both Balanced and Unbalanced Growth doctrines need to be substantiated if a better understanding of the growth phenomenon is to be provided.

4. Economic Planning: A necessary Complement to
Balanced and Unbalanced Growth doctrines

On close analysis - especially of the views presented by professors Lewis and Nurkse on Balanced Growth, and by Hirschman and Streeten on Unbalanced Growth - both doctrines presuppose planning, although of a different kind, because they are both concerned with "lumpy investment and complementarities".¹¹ Consequently, coordination is required in order both "to get things"¹² done and in order to reap the rewards of complementarities. This coordination cannot be left to market forces alone because private horizons are too narrow and no private firm would want or be able to carry the surplus capacity or losses inherent in the developmental process.

11. Streeten, Paul, "Balanced versus Unbalanced" The Economic Weekly, April 20, 1963, p.669.

12. Ibid, p. 670.

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The provision of Economic Planning would ensure the much needed coordinating mechanism and strengthen both Balanced and Unbalanced Growth.

Take, to begin with, Unbalanced Growth. Hirschman says that "if the economy is to be kept moving ahead, the task of development policy is to maintain tensions, disproportions, and disequilibria."¹³ In an underdeveloped economy there already exist inadequacies of institutions, and rigidities, sluggishness in response to both supply and demand. There are usually a number of difficulties in meeting many urgent requirements such as for technicians, managers, skilled workers, machines, semi-manufactured products, transportation and power facilities and in finding markets permitting full utilisation of equipment. Therefore the question is not to "maintain" any unbalance but to maintain the desired unbalance. The provision of economic planning i.e. a system of "coordinating everything in some simultaneous (and integrated) piece of analysis and doing it on some optimum basis."¹⁴ would surely assist in the determination of the optimum degree of unbalance, where and how much to unbalance in order to accelerate development and growth.

As for Balanced Growth, its strength lies in the stress on the "investment package, on the structure of an investment complex and on the need for coordination."¹⁵ What is needed is the means to bring about

13. The Strategy of Economic Development, op. cit., p.66.

14. Planning Economic Development, op. cit., p.2.

15. The Economic Weekly, op. cit., p.671.

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these results. The introduction of Economic Planning in the doctrine would provide

- (a) controls checking desirable and less desirable investment;
- (b) complementary investment;
- (c) basis for formulating appropriate policies to reform "institutions and attitude, including the desire to invest, but also the ability and willingness to work, to organize and manage and in particular to administer politically.
- (d) a carefully thought-out time table showing the sequence of the various measures which would be determined by technological, political and sociological factors.
- (e) policies designed to weaken or eliminate obstacles and inhibitions to development, including resistances induced by measures (a) to (d)."¹⁶

Thus the provision of Economic Planning in the doctrines of Balanced and Unbalanced growth would fill the gaps left by them. Further, Economic Planning goes beyond this function and adds to the economist's knowledge of the growth phenomenon.

Professor John Galbraith has compared modern industrial society to an "iceberg" and said that it has "both visible and invisible dimensions."¹⁷ He further adds that "to get capital, railway

16. Ibid.

17. Galbraith, John K., Economic Development, Harvard University Press, Cambridge 1966, pp. 74-75.

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lines, coal mines, airplanes, oil rigs into use" is the visible part of the iceberg." To ensure that this plant is efficiently used - that management is independent and sound, and that inconsequence product quality is good, cost of production low and earning adequate for replacement and expansion of plant - is much the larger part of the task. This part lies below the surface and possesses the greatest capacity for causing shipwreck."¹⁸

Likewise, the phenomenon of economic development and growth can be compared to an iceberg. And economic planning as a means of securing economic objectives and making them explicit and the way in which they are to be achieved, can take care of both the visible and the invisible parts of the iceberg. To provide for capacity is the visible achievement of economic planning and to ensure that this capacity is effectively used to match demand - both quantitatively and qualitatively - is the invisible task of economic planning. Thus economic planning provides for the knowledge of both the invisible and the visible aspect of growth.

18. Ibid., p.76.

CHAPTER IVTECHNIQUES OF ECONOMIC PLANNING

This chapter is concerned with some of the techniques used in formulating a development or break through plan and of putting it into effect.

1. Keynesian Approach

In "The General Theory of Employment, Interest and Money"¹ Keynes points out that if there is an increment to public investment in an economy, there is creation of income not only at the place of the project but also elsewhere. For instance, if a building is set up, the building materials will also have to be produced. If a new factory for raw sugar is established, the existing refineries may well have to expand their activities. If a factory to produce a semi-finished product is built, there is every chance that production of the finished product will also increase. Thus there are activities which, for technical reasons, are necessary for carrying out every type of project. Keynes uses the term "indirect effects" to describe the effects that are vertically connected with the setting up of projects.

"Secondary effects" spring from the spending of the incomes that have been created as a result of the projects themselves and as a result of their "indirect effects." For example, the income earned by the workers of the sugar factory will then have to produce more to meet

1. The General Theory Employment, Interest and Money, MacMillan and Co. Ltd., New York, 1961, chap. 10.

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rising demands. This will increase economic activity.

However, this analysis may not be entirely applicable in most less developed countries. What is, indeed, usually observed, is the spending of income on both imported producer's and consumer's goods. This encourages imports and contributes to a shift in consumers' taste, away from home produced goods, altering the production pattern of most countries. With the deterioration in the terms of trade of most emerging nations, a considerable pressure is put on their balance of payments. Keynes' "secondary effect" will therefore lead to a negative effect, depressing the economy of most young countries.

In fact the problem as Keynes sees it is typical of a developed country during a depression where the task is to bring idle men to idle capacity. In most developing economies capacity has to be created. The solution to the problem faced by the developing nations lies less in continuing outcropping of "secondary effects." Essentially, the task, here, is to look ahead, to make choices, to arrange that development policies and actions for attaining objectives follow consistent paths and to anticipate the consequences that may arise from such policies and actions. Consequently, Keynes' "secondary effects" will have more significance in the advanced than in the developing economies.

2. Semi-Input Output Technique

This method may be illustrated by considering the problem of adding a factory, say a weaving factory, to the productive plant of a

Table 6

THE SEMI-INPUT-OUTPUT TECHNIQUE

Production	Consumption	Export Surplus	Inter-Industry Deliveries
$y_1 =$	c_1	$+ e_1$	$+ a_{1.1} y_1 + a_{1.2} y_2 \dots a_{1.20} y_{20}$
$y_2 =$	c_2	$+ e_2$	$+ a_{2.1} y_1 + a_{2.2} y_2 \dots a_{2.20} y_{20}$
$y_3 =$	$\dots$	$\dots$	$\dots$
$\dots$			
$\dots$			
$\dots$			
$y_{16} =$	c_{16}	$+ e_{16}$	$+ a_{16.1} y_1 + \dots a_{16.20} y_{20}$
$y_{17} =$	$\dots$	$\dots$	$\dots$
$y_{18} =$	$\dots$	$\dots$	$\dots$
$y_{19} =$	$\dots$	$\dots$	$\dots$
$y_{20} =$	$\dots$	$\dots$	$+ a_{20.1} y_1 + \dots a_{20.20} y_{20}$

Source: Seminar on Planning Techniques and Methods, San José Puerto-Rico, 1960, p.43.

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country. This will be possible if at the same time one adds capacities to transportation, energy, and all other "national" industries. The capacity of national industries must, therefore, be in line with the capacities of the international industries. The problem that the semi-inout-output technique assists in solving is the following: how can one see to it that when the weaving factory is added to the economy, the necessary capacities such as energy, transportation, building activities and some other services are added at the same time?

In order to know the additional capacity required, the following assumptions are made:

1. There are twenty industries: $Y_1, Y_2, Y_3, \dots, Y_{20}$ in the economy.
2. Industries $Y_1, Y_2, \dots, Y_{15}$ are international industries, while Y_{16}, Y_{17} through Y_{20} are national industries.
3. Capacity is added to Y , which is the weaving industry. At the same time other international industries are not changing their capacities. So Y_2, Y_3 , up to Y_{15} will be equal to zero.

On the basis of these data, table 6 is presented.

The first equation in the table $y_1 = c_1 + e_1 + a_{1.2} y_2 + \dots + a_{1.20} y_{20}$ indicates that production (y_1) should be equal to consumption (c_1) plus export surplus (e_1) plus inter-industry deliveries. The $a_{1.1} y_1 + \dots + a_{1.20} y_{20}$ are inter-industry deliveries. The equation is repeated for the twenty industries which are assumed in the table.

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By definition a national industry does not have an export surplus; it cannot export and import; so both are zero. Finally, consumption always depends on income and the increase in consumption is due to the increase of income. This means that all the c 's can be expressed as function of the Y 's. Since there is no increase in $y_2, y_3 \dots y_{15}$ these are equal to zero. So the corresponding C 's are equal to zero. The problem therefore is how much capacity should be added to $y_{16}, y_{17}, y_{18}, y_{19}$ and y_{20} . This means that there are five unknowns instead of the twenty unknowns in the usual application of the input-output method.

The Semi-Input-Output method is then simpler than the input-output technique. It is called semi-input-output because it uses only a portion of the input-output information.

3. Input-Output Technique

Input-Output technique is one of the favourite tools of development planning. In Table 7, the input-output of an imaginary economy is presented.

The Columns (reading vertically) show the items entering into the cost of producing each commodity. The rows (reading horizontally) show what happens to output. The total for any commodity's column (e.g. column D, row J) equals the total for the same commodity's row (e.g. row D, column H) since the column shows the inputs into the total production, and the rows show the disposal of the same production. Column J sums the intermediate demands (as shown in columns A to F). The rest of its output is the final demand, which enters into investment,

INPUT-OUTPUT TABLE

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q
Food																
Livestock																
Raw Mat																
Local Man																
Processed																
Other Man																
Construction																
TOTAL																
Intermediate																
Fixed Inv.																
Stocks																
Government																
Services																
Consumption																
Imports																
Exports																
A. Foodcrops	19	64	-	20	-	-	-	485	103	-	4	7	-	268	30	133R
B. Livestocks	-	-	-	-	-	-	-	160	-	-	2	10	-	146	-	2R
C. Raw Materials	19	8	17	5	29	40	6	171	124	-	2	4	36	-	40R	45
D. Local Manufactures	19	-	-	-	-	-	-	113	45	-	2	6	8	43	-	9R
E. Processed	-	-	-	-	-	-	-	145	-	12	2	5	-	102	3	12R
F. Other Manufactures	28	8	14	9	11	-	17	96	87	71	2	6	26	72	178R	10
G. Construction	-	-	-	4	-	6	-	173	10	163	-	-	-	-	-	-
H. Value Added	400	80	140	75	105	50	124	-	-	-	-	-	-	-	-	-
J. Total	485	160	171	113	145	96	173			246	14	38	85	631	251	211

Source: Lewis, W.A. Development Planning: The Essentials of Economic Policy, George Allan and Unwin Ltd. London, 1966

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Government use, services and foreign trade. The sum of columns K through R constitutes final demand. This, when added to intermediate demands in column J, gives the total output in column H. Column H is therefore the "pivot" of the table; to the left of H add vertically to find out how much is available; to the right of H add horizontally to find out how much is used.

Because it shows commodity transaction between industries, Input-Output technique or inter-industry studies can be an important tool and aid to planning provided the model is developed in accordance with the decision-making potentials of the country and not only in accordance with the logical apparatus of inter-industry economies.

4. Cost - Benefit Analysis

Alternatively christened "Investment Planning" or "Project Appraisal", Cost-Benefit Analysis is a "practical way of assessing the desirability of projects, where it is important to take a long view (in the sense of looking at repercussions in the further, as well as the nearer, future) and a wide view (in the sense of allowing for side-effects of many kinds on many persons, industries, regions etc) i.e. it implies the enumeration and evaluation of all the relevant costs and benefits"² It involves drawing on welfare economics, public

2. Prest, A.R. and Turvey, R. "Cost Benefit Analysis: A Survey" in The Economic Journal, December 1965, p.683.

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finance, resource economies and trying to weld these branches of economics into a coherent whole. The technique is used in a variety of fields: water-supply projects, transportation, land usage, health, education, and research. It has been applied to proposed changes in laws or regulations, and to new pricing schemes. It is also applicable to investment projects and decisions. In this case, it helps to find out, whether or not a particular project is worthwhile, which is the best of several alternative projects, or when to undertake a particular project.

Looking at the method from the point of view of planning, it can be defined as a way of setting out the factors which are required to be taken into account in making economic choices to bring about the objectives of the plan. As such the general principles which underlie its analysis may be formulated as follows:

1. "What costs and which benefits are to be included?
2. What are the relevant constraints?
3. What are the criteria which govern investment decision?"³

In evaluating costs and benefits professors Turvey and Prest suggest that the externalities of the project be taken into account. By externalities are meant the impact of the project on surrounding activities or the extent to which the project alters the "physical" production possibilities of other producers in the area or the satis-

3. Ibid.

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faction that consumers can get from given resources. Costs and benefits are to be measured on the assumption of a given set of prices. An illustration of this principle can be found in the evaluation of the effects of flood control measures or storage dams on the productivity of land.

In the view of professors McKean,⁴ Margolis⁵ and Eskstein⁶ the secondary benefits should also be taken into consideration. The essential point of their arguments can be made clear by taking the case of irrigation, which results in an increase in grain production, where the direct benefits are measured as the value of the increase in grain output less the associated increase in cost.

The increased grain output will involve increased activity by grain merchants, transport concerns, millers backers and so on; and hence will involve an increase in their profits. If the ratio of total profits in all these activities to the value of grain at the farm is 48% then secondary benefits of 48% of the value of the increase in grain output are credited to the irrigation project.

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4. McKean, R.N., Efficiency in Government through Systems Analysis, John Wiley and Sons, New York, 1958
 5. Margolis, Julius, "Secondary Benefits External Economics, and the Justification of Public Investment" in Review of Economics and Statistics, vol. XXXIX, August 1957.
 6. Eskstein, Otto, "A Survey of The Theory of Public Expenditure Criteria" in James M. Buchanan (ed.) Public Finances: Needs, Sources and Utilization, Princeton University Press, Princeton, 1961.

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As for the relevant constraints Professor Eckstein provides a helpful classification. First, there are physical constraints. The most general of these is the production function which relates the physical inputs and outputs. Next, there are legal constraints. What is done must be within the framework of the laws which affects the economy in a multiplicity of ways: e.g. right of access, regulated price, limits to the activities of public agencies. Third, there may be administrative constraints, related to limits to what can be handled administratively. Finally, there are budgetary constraints in terms of availability of financial resources.

With regards to the investment criteria, professors Prest and Turvey suggest that "the most common maximand where projects involve only costs and benefits expressed in terms of money (be) the present value of benefits less costs."⁷

Considering projects where there are no interdependence, where starting dates are given, and where no constraints are operative, the choice of projects which maximise the present value of total benefits less total costs can be expressed as follows:

- "(1) Select all projects where the present value of benefits exceeds the present value of costs;
- (2) Select all projects where the ratio of the present value of benefits to the present value of cost exceeds unity;

 7. Cost-Benefit Analysis: A Survey, op. cit., p.703.

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- (3) Select all projects where the constant annuity with the same present value as benefits exceeds the constant annuity (of the same duration) with the same present value as costs;
- (4) Select all projects where the internal rate of return exceeds the chosen rate of discount."⁸

Symbolically, these criteria can be summarized as follows:

"Let $c_1, c_2, \dots, c_n$ - series of prospective costs in years 1, 2, ... n ;

c - constant annuity with same present value as $c_1, c_2, \dots, c_n$;

$b_1, b_2, \dots, b_n$ series of prospective benefits in years 1, 2, ... n ;

b - constant annuity with same present value as $b_1, b_2, \dots, b_n$;

s - scrap value;

i - appropriate rate of discount for annual compounding;

Then we may write the rules as follows: select projects

where

$$1. \frac{b_1}{(1+i)} + \frac{b_2}{(1+i)^2} + \dots + \frac{b_n + s}{(1+i)^n} > \frac{c_1}{(1+i)} + \frac{c_2}{(1+i)^2} + \dots + \frac{c_n}{(1+i)^n}$$

8. Ibid.

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$$2. \quad \frac{b_1}{(1+i)} + \frac{b_2}{(1+i)^2} + \dots + \frac{b_n + s}{(1+i)^n} > 1$$

$$\frac{c_1}{(1+i)} + \frac{c_2}{(1+i)^2} + \dots + \frac{c_n}{(1+i)^n}$$

$$3. \quad b > c$$

Finally, select projects where $r > i$, where r is given by

$$4. \quad \frac{b_1 - c_1}{(1+r)} + \frac{b_2 - c_2}{(1+r)^2} + \dots + \frac{b_n - c_n}{(1+r)^n} = 0^{19}$$

5. Use of models in Planning.

"An economic model is an organized set of relationships that describes the functioning of an economic entity, whether it be a household, under a set of simplifying assumptions."¹⁰

The data and relationships required for constructing a model are usually either based on the past experience of the economy concerned or "borrowed" from economies considered to be sufficiently similar. Before using such models for planning purposes it is necessary either to adopt certain specific assumptions with respect to the country's future or to adjust the historical relationships to allow for prospective changes.

9. Ibid.

10. United Nations, Department of Economic and Social Affairs, "Use of Models in Programming", Industrialization and Productivity, Bulletin 0, April 1961, p.7.

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"The extent to which the quantitative value and the direction of the changes in the relationships are correctly anticipated determines the reliability of the model for planning purposes."¹¹

Models can be applied to the determination of economic policies in two different ways. In the projection models, the effects of a particular set of economic measures, for example, of investment in certain sectors are determined. In decision models, a certain set of objectives is specified, such as a given rise in income or employment or a given reduction of a balance of payments deficit; the model is used to determine the most appropriate policy measures to achieve these objectives.

A policy model consists of the following elements:

- "(1) A specified set of objectives - such as maximum income, full employment, reduced balance of payments deficit - which defines the objectives of the development programme;
- (2) A set of instrument variables related to the policy measures that a government intends to use to achieve its objectives. Examples of instrument variables are levels of savings, production and investment by sector, exports, or other magnitudes that are intended to be influenced in some way. The instrument variables are affected by

11. Meier, G. Leading Issues in Development Economics, Oxford University Press, New York, 1964, p.466.

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measures such as subsidies, taxes, or direct public investment to achieve a given level of output.

- (3) Other variables, not directly affected by government action, but which are necessary for an adequate analysis of the economy, such as consumption of individual commodities, and prices of commodities and of productive factors;
- (4) Economic relationships in the form of equations containing the variables mentioned above. Such equations may
- (a) describe the behavior of an economic entity in terms of a response of one economic variable to a change in another variable (for example, a consumption function);
 - (b) express a technological relationships (for example a production function), or
 - (c) take the form of accounting identities that must hold true in any economy, such as the equality of total supply and demand."¹²

A solution of a model consists of a set of values for the instrument variables that satisfies all the equations in the model. As a rule, value of some of the variables are fixed by prior analysis and the model itself determines the values for only as many variables as there are equations.

12. Use of Models in Programming, op. cit., p.9.

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There are three types of models used in development programming:

- "(1) Aggregate models, which apply to the entire economy and deal with production, consumption, investment and the like as single aggregates;
- (2) Sector models, which apply to individual sectors;
- (3) Inter-industry models which are concerned with the relationships of the productive sectors of an economy with each other, and each of these sectors with other entities of the economy."¹³

Aggregate models are used to determine possible growth rates in national income, the division of the national product among consumption (public and private), investment and exports; the required volume of domestic savings, imports and foreign financial assistance to carry out a given programme.

Sector models are used to determine levels of production and consumption by economic sectors and to explore alternative production possibilities within individual productive branches.

Inter-industry models serve to determine the demand for intermediate products and capital goods (including imports) and their solution provides for a mutually consistent set of production levels by economic sectors, and imports for the whole economy.

13. Ibid.

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6. Methods and Criteria Used for The Appraisal and Selection of Individual Projects.

According to the International Bank for Reconstruction and Development, "Project Appraisal" has to answer three main questions, which involve the investigation of the project from six different points of view.

The first of these questions is: "are the goods or services to be produced by the project needed by the economy for consumption or for export?"¹⁴ In order to answer this question, the project must be investigated from the economic point of view.

The second question is: "is the project properly designed and planned?"¹⁵

To answer this question, the project must be examined from four different points of view, namely, the technical, the managerial, the organizational, and the commercial aspects.

The third question is: "is the proposed method of financing the project appropriate, and (where relevant) are the earnings prospects satisfactory?"¹⁶ This requires an examination of the project from the financial point of view.

14. "Some Techniques of Development Lending", International Bank for Reconstruction and Development Staff Paper, September 1960, p.12.

15. Ibid.

16. Ibid., p.12.

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The relative importance of these different aspects varies considerably according to the type of project involved as is through out in the following paragraphs, in which the six aspects are presented in turn.

(a) Economic Aspects. The objective of the economic appraisal is to discover whether the project is able to earn a reasonable return on the capital which must be invested. The question of what rate of return is reasonable is not easy to answer, and the answer will vary from case to case." Where market forces operate freely, it could be said that the new project should earn not less than the return from comparable enterprises in the country concerned. But in the case of projects which are subject to regulation because of their monopoly position (for instance, some public utilities and transport systems) this test tends to become indistinct, and resort must often be had to the application of pricing formulae to produce the desired results."¹⁷

In addition to the direct return which a project may produce, there are a number of other ways in which it may contribute to economic development. One of these is the extent to which it would utilize resources, capital or human, which would otherwise be idle or under employed. Then there is the question of external economies, that is the question of whether the project would create conditions favorable for the establishment of related economic activities (for instance, industries

17. Ibid., p.14.

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supplying raw materials or processing the products of the project).

The economic appraisal is a determination of the project's probable effects on a country's balance of payments, whether by way of generating increased exports or by way of import substitution. It is the net effect on the balance of payments which must be estimated; that is, "account must be taken of possible need to import parts or raw materials, as well as debt service etc."¹⁸

Another economic question of significance is whether the success of the project will depend upon measures taken to protect it from competition. These may be of various kinds. The commonest type is the imposition of import duties or quotas, but there are other types of protection such as a limitation on the freedom of road transport i.e. the external diseconomies resulting from the establishment of the project.

(b) Technical Aspects. The technical side of the investigation concerns the appraisal work done by engineers and similar specialists.

The first thing to be examined is the proposed scale of operation, which has to be viewed in relation to the results of the market study. This is of particular importance in the case of industries which cannot produce economically except on a large scale; an integrated steel plant is an outstanding example. Technical appraisal also includes an investigation of the processes which it is proposed to use. It is,

18. Ibid., p.16.

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indeed, necessary to confirm the unavailability of the different factors of production: raw materials, fuel, power, water, skilled and unskilled labour). The proposed location has to be considered in relation to the sources of the factors of production, to transportation, and to the markets where the products are to be sold. The layout of a project may also be very important, especially from the point of view of future expansion.

The appraising engineers' work also involves the investigation of the assumptions on which the cost estimates have been calculated. The cost estimates must include adequate allowances for physical contingencies and for likely increases in the general level of costs during the construction period. Provision must also be made for interest on borrowed money during construction and for initial working capital. The cost estimates usually need to be broken down according to the amounts which will be spent locally and abroad, according to a time schedule and according to the different main elements of the project.

(c) Managerial Aspects. The appraisal of management presents peculiar difficulties. The shortage of management experience and ability, a twin condition for the success of a project, is however, one of the main difficulties standing in the way of economic development in many countries. This is compounded by the limited concept of the role of management in some countries, where it is not understood that management is much more than simply keeping a plant running. And there is often an unwillingness to employ foreigners in positions of management

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responsibility. In the opinion of The World Bank, one "solution to this problem may be the partnership between local investors and an existing foreign organization. Another possibility is to have professional managing services for a number of different organizations."¹⁹

(d) Organizational Aspects. The organization of a project falls into two phases: the organization required to bring a project to the operating stage and the one required thereafter. The type of problem which has to be investigated here is the extent to which responsibility and authority should be centralized or delegated. This is intimately related to the scale of operations, and to their geographical extension.

The quest for adequate internal controls is one of the organizational aspects of significance. For management to function efficiently an organization must be able to provide without delay information which is constantly checking performance against expectations and so bringing to light problems as they arise. It is equally important that an organization should be able to put the decisions of management into practice without undue delay.

(e) Commercial Aspects. The commercial aspects of appraisal entail the investigation of the arrangements for buying the materials needed to construct the project and the arrangements for obtaining the raw materials, power, and labour for the operation of the project and

19. Ibid.

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for marketing product.

Two questions are generally at issue. The first is whether the prices which the organization concerned is permitted to charge will give it adequate revenue. The second question is whether the structure of rates is appropriate to the different types of customers.

(f) Financial Aspects. The financial investigation usually falls into two parts: (1) that concerned with the amount of money required to bring the project into operation and with the sources from which this money is to be obtained; and (2) that concerned with the operating costs and revenue and the prospective liquidity in the operating phase.

The first question is: how much money will be needed? Requirements will include some or all of the following items:

- (i) "cost of goods and services for the project itself.
- (ii) allowances for escalation and contingencies.
- (iii) interest on borrowed funds during construction."²⁰

In addition, account has to be taken of the financial position of the other activities of the enterprise, which during the construction of the project might make a net contribution to the requirement of the project or might give rise to additional cash requirements. Finally allowance has to be made for the working capital required when the project starts operation.

20. Ibid.

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The next question to deal with to prepare projections of two kinds:

- (i) "Estimates of cash receipts - expenditures, from which it can be seen whether funds will be available at the right time to meet the expected requirements; and
- (ii) periodical situation of the organization during construction period."²¹

These projections together with projections of earnings have to be carried on into the operating period to show the likely financial results of the operation. In these forecasts account must be taken of the time required to overcome initial operating difficulties and the rate at which the market may be able to absorb production.

7. International Survey of Planning Techniques. This section attempts to examine the essence of planning techniques in market-oriented types of economies by selecting five countries from each of the major continents, twenty in total.

21. Ibid.

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The meanings of the symbols used in the matrix are:

X	Applicable	Xn	Better Organization
Xa	Minister of Economics	Xp	To set prices for Public Utilities
Xb	National Development Council	Xq	Economic Aid
Xc	King	Xr	Economic Independence
Xd	Implementation	Xs	Foreign Aid Programme
Xe	Inflation	Xt	Industrial Efficiency
Xf	Forecasting	Xu	Land Reform
Xg	Regional Development	Xv	To be Self-Sufficient in Food
Xh	Heavy Industries	Xw	Irrigation
Xi	Foreign Exchange Control	Xx	Investment Facilities
Xj	Budgeting	Xy	Tariff Control
Xk	Limitation of Investment	Xz	Regulation of Imports
Xl	To Raise Life Expectancy		
Xm	To be Self-Sufficient in Manpower		

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The following matrix is presented in Table 8.

In assessing development planning techniques in these twenty countries a distinction must be made between planning in developed and less developed countries. While planning in some of the developed countries is more effective than in others, the main characteristics are that they are related to clearly established economic, social and political goals. Further, there is a good deal of democratic participation in the manner in which a planning process evolves and the form in which it is implemented in concrete terms. Consultation and co-operation between government and business, labour and other sectors in turn make effective planning more feasible.

The situation, however, is different in assessing the planning progress made by less developed countries. On the basis of the evidence examined in the matrix covering fifteen emerging nations, the following shortcomings can be observed which impede adequate use of the planning process to serve desirable economic and social goals. The shortcomings are:

1. Planning machinery;
2. Planning policy;
3. Planning consultation and cooperation;
4. Planning objectives;
5. Planning techniques;
6. Plan implementation.

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These shortcomings should be taken into consideration if effective planning is to be brought about resulting in economic and social progress of the countries concerned.

"Planning the Planning" is one of the solutions proposed to deal with these problems. It consists in evaluating realistically, technical and administrative capacities, in setting out "priorities for each planning task and in (determining) the extent to which scarce technical and administrative staffs are to be assigned to each task to yield desired results. By planning the planning in this way a government reduces the danger of putting too great a burden on its technicians and administrators or of so dispersing its efforts that it ends up doing little."²²

But since each country poses peculiar problems and these problems compel a program tailor made for the country, the solution of the inadequacy of planning techniques in less developed nations, has to be found within individual countries. Professor Currie expresses best this idea:

22. Waterston, Albert, "Planning the Planning Under the Alliance for Progress" in Development Administrations Concepts and Problems, op. cit., p.144.

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"I do not believe that there is a ready made program which can be applied indiscriminately to a variety of countries with a variety of cultural social and economic conditions ... As there is no single cause for being a developing country, there is no diagnosis that would apply to all and the search for one is probably fruitless."²³

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23. Currie, Lauglin, Accelerating Development. The Necessity and the Means, McGraw-Hill Book Company, Toronto, 1966, pp. 5 and 23.

CHAPTER VROLE OF ECONOMIC PLANNING IN LESS DEVELOPED COUNTRIES

In the preceding chapters the main elements involved in the planning concept have been presented and the contributions of professors Tinbergen, Lewis and Mayne have been discussed. This was followed by referring to the dual nature of the planning process, and planning techniques, and a discussion of the need to consider planning as a necessary complement to facilitate an understanding of the theories of Balanced and Unbalanced Growth.

Having dealt with the theoretical aspects it is now appropriate to turn to the application of theory to practice. This raises the question: how can planning assist less developed nations in their efforts to break out of the "vicious circle of poverty"? More specifically, what role can economic planning play in these countries described as "underdeveloped" or "backward"?

1. Evaluating the Potentials of the Economy.

As analysed by professor Mayne, the first stage of planning is the survey: to find out what resources are available and what are the potentialities of development. Here the work to be done may be sub-divided into technical surveys and economic surveys.

Most emerging nations have few technical surveys of their resources, and as a consequence they do not really know what their development possibilities are. Their first need then is to establish survey organizations.

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They need geological surveys, to find out what minerals they possess, and what underground sources of water and of oil are available. They need soil surveys, and experiments to discover what new crops can be grown successfully. They need engineering surveys of routes for roads, of communications, of the possibilities of irrigation, hydro-electric power, and new supplies of water. And they need market surveys, of the home market and of foreign markets to indicate what new manufacturing industries might succeed.

Economic surveys are of two kinds. One is a survey of economic institutions. Some of the issues involved can be summarized as follows: What are the institutions for stimulating and mobilizing domestic savings? Can the flow of capital into industry be improved through government agricultural or development banks? Does the existing commercial law inspire the confidence of persons entering into contracts? Is the size of organization of economic activities adequate, in agriculture, in industry, in marketing and in transport, or is some rationalization needed?

The other kind of economic survey is that which takes stock of the current use of the community's resources. As discussed by professor Lewis, this is expressed in various accounts. First, there is the manpower budget which shows the numbers and occupations of the people, and which stems from censuses and from other inquiries. Similar budgets show the utilization of land as between different industries; or the utilization of foreign exchange earnings, or of

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other scarce resources. Then there are industry studies, showing the input of factors into each industry, and the output of products; from these studies can be derived such information as the net output of each industry, productivity, the cost of expanding the industry, the nature of the resources required for further expansion. Another account shows the distribution of income between various social classes in the community. This in turn leads to accounts showing the expenditure of personal incomes, and of savings. Finally, much of this information is crystallized into the form of national income accounts, which show, summarily, how the national income is produced, distributed and spent.

Thus the empirical evidence obtained is of two types: one relates to the stocks of resources: population, national output, mineral resources, government expenditures; the other related to changes in the stock: saving, investment, taxation, balance of payments, reflecting both additional and diminution of the stock.

This dual approach permits an assessment of the position of economic potential of the country at a point of time and the other gives an indication of the rate of progress achieved in the various areas covered by the survey. This evaluation also provides a preliminary diagnosis of a country's situation and points to the problems which must be selected for further attention. The appraisal also gives due recognition to the maximum product obtainable from efficient use of factors of production and to the change in the economic potential

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and the extent to which economic potential is used. Therefore contrary to the "invisible hand" approach to economic development, economic planning provides a realistic basis for decision-making. "Such information is ... a curtain raiser",¹

2. Establishing A Strategy For Development.

An attempt has been made in Chapter 4 to examine and describe the essence of planning techniques in five emerging countries selected from each of the major continents, fifteen in total. This review of development plans reveals useful lessons on development strategy. For instance, in Argentina, Latin America, the plan objectives are:

- "1. To eliminate the profound causes which have brought the country to its present stagnation.
2. To create the requisite basis and conditions to facilitate a substantial economic expansion, and an authentic and self-sustained growth the full use, at the highest possible level of productivity, of the country's human and natural resources.
3. To ensure access to a higher availability of goods and services for those willing to make the sustained effort necessary to obtain them with the ultimate goal of ensuring, for the people as a whole, the highest degree of freedom, prosperity and security, consistent with order, social discipline, and the country's real possibilities."²

1. Lewis, Arthur, Development Planning, The Essential of Economic Policy, George Allen and Unwin Ltd., London, 1966, p.13.

2. "Argentina Economic Policy" in National Economic, Buenos Aires, 1967, p.17.

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In Pakistan, Asia, "the crucial objective is to attain an increase in national income of 20% while at the same time building the potential for further growth. This will be achieved along with a policy of self-sufficiency in food, improvement in the balance of payments, acceleration of growth of less developed areas, increase in employment opportunities." Further, the plan emphasizes "an increase in production rapidly with the limited resources that are available for development. This means that priorities must be given to expenditures which produce results. The plan will rely on market mechanism and fiscal and monetary policies, instead of direct price, profit, and allocation controls."³

In Tanzania, Africa, the main objectives are:

1. "To raise per capita income from the present 19 pounds (as of 1965) to 45 pounds in 1970.
2. To be fully self-sufficient in trained manpower requirements.
3. To raise the expectation of life from the present 35 to 40 years to an expectation of 50 years.

These objectives will be achieved by concentrating on agriculture, industry, communication, education, private enterprise, foreign finance, and reliance on technical assistance."⁴

Like Argentina, Pakistan and Tanzania, all emerging nations have engaged in development planning to attain certain specific objectives. A number of similarities as well as important differences can be noticed in the strategies proposed by the various countries.

Some countries have planned to achieve ambitious increases

3. Pakistan Development Plan, Government Printing House, Karachi, 1965, p.5.

4. Tanzania Development Plan, Government Printing House, Dar-es-Salam, 1965, p.2.

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in the level of total investment over the course of their current plan periods; others have proposed more moderate, though still substantial increases and a few have envisaged no marked change. Most countries have accepted a large increase in the proportion of domestic income that is saved as the condition for realization of their higher investment levels. While almost all countries have predicated their plans on the assumption that there would be a net inflow of foreign capital during the planning period as a whole, some have planned to eliminate their dependence on external resources by the end of their current plans and a number of other countries have aimed to reduce such dependence. Still others, however, have expected that their dependence on external resources would continue to increase.

In the allocation of the total resources available for investment between the three broad sectors of commodity production, basic facilities, and services (provision of doctors, nurses, teachers, etc.) plans have differed mainly in the relative emphasis placed on production on the one hand, and services, on the others. For a few of the countries which have emphasized investment in services, a significant influence has been the weight assigned to the development of education. In the main, however, the allocation of a relatively large proportion of resources to services has reflected the priority given to housing and other social services. This pattern of investment allocation is apparent in table 9 where Burma's

Table 9

CAPITAL INVESTMENTS OF GOVERNMENT FOR 1964-65 BY SECTORAL CLASSIFICATION.

Sector	1961-62		1962-63		1963-64		1964-65	
	Amt.	%	Amt.	%	Amt.	%	Amt.	%
1 Agriculture and Irrigation.	168	4.3	656	17.2	543	8.0	1,664	17.3
2 Livestock and Fisheries.	4	0.1	4	0.1	14	0.2	44	0.5
3 Forestry	26	0.6	19	0.5	91	1.4	273	2.8
4 Mining	127	3.4	4	0.1	239	3.5	465	4.8
5 Manufacturing	172	4.4	149	3.9	746	11.0	1,254	13.0
6 Power	193	4.9	214	5.6	170	2.5	452	4.7
7 Roads and Buildings	721	18.3	451	11.8	452	6.7	1,366	14.2
8 Transportation	925	23.5	590	15.5	1,716	25.8	1,330	13.8
9 Communications	35	0.9	58	1.5	98	1.5	95	1.0
10 Trade	32	0.8	90	2.4	373	5.5	240	2.5
11 Financial Institutions	...	...	...	...	3	0.1	6	0.1
12 Social Services	198	5.0	179	4.7	385	5.7	294	3.1
13 Government Services	964	24.5	1,024	26.9	1,686	24.9	1,525	15.9
14 States and Frontier Area	363	9.3	375	9.8	243	3.6	257	2.7
15 Adjustment	...	...	...	...	...	...	351	3.6
16 TOTAL	3,928	100.0	3,813	100.0	6,759	100.0	9,616	100.0

Source: Burma National Economy 1963-64.

Published by the Director of Information, Burma, Rangoon, 1966, p.113.

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government capital expenditures are shown by sectoral classification from 1961-1965.

Table 9 shows 14 sectors. The percentage of funds absorbed by each sector is shown side by side with the amount of investment in millions of Burma's units of accounts. During 1961-62 agriculture expenditures amount to 168 million. This represents 4.3% of the total 3,928 million spent during the same year. Governments services and social services account for 38.8% of the same amount.

However, in many countries the allocation of total resources for investment has been considerably influenced by a strategy of relative emphasis placed on the development of heavy industry. For example, in India and Iran, public investment in the manufacturing sector has been significantly large.

The survey also reveals appreciable differences among countries in the pace at which the output of primary and secondary sectors have been planned to increase in relation to one another. Targets for agriculture and mining have been, in part, influenced by the role of the export sector in agriculture and mining and by the targets set for agricultural or mineral exports. They have also reflected the emphasis placed upon the development of domestic food production to replace imports. While progress towards self-sufficiency in food supplies has been one of the common features of plans in most of the countries analysed, some, with heavy food deficits, have placed particular emphasis on this aim.

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Finally, plans have differed considerably in the targets set for exports and imports. While the plans of few countries have been distinctly export-oriented, most have assumed that the relative size of the export sector would contract over the plan period. The share of imports in total domestic supplies has also been generally expected to undergo a relative decline. However some countries have expected that their relative dependence on imports would increase.

Despite these differences a number of similarities are found in all plan documents. They are:

- "1. Provision of adequate infrastructure (water, power, transport and communications) whether by public or private agencies.
2. Provision of specialized training facilities, as well as adequate general education, thereby ensuring necessary skills.
3. Improving the legal framework of economic activity, especially laws relating to land tenure, corporation and commercial transactions.
4. Helping to create more and better markets, including commodity markets, security exchanges, banking, insurance and credit facilities.
5. Seeking out and assisting potential entrepreneurs, domestic and foreign.
6. Promoting better utilization of resources, both offering inducements and by operating controls against misuse.
7. Promoting an increase in saving, both private and public."⁵

5. Development Planning, The Essentials of Economic Policy.
op. cit., p. 22.

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The similarities and differences are examples of establishment of a strategy for allocating investment resources among competing demands. Representing a combination of political, economic, and social goals, they elucidate the relative emphasis to be given to each plan objective, target, and project. Therefore they are the prime determinants of the character and direction of the national development effort.

3. Providing Directives to the Public Sector and Incentives to the Private Sector.

Development plans of market oriented⁶ economies, whether they be developed or less developed, have two aspects:

In the public sector the plan is a "directive to various public agencies and enterprises to do certain things: e.g. to invest much in such a way, to produce in such a way at such a cost."⁷ In other words, the plan is imperative in the public sector.

6. A distinction should be made between fully controlled planning as applied in the Soviet Union and followed by other communist countries; and market oriented type of planning or macroeconomic planning without full controls employed by western countries and a number of non-committed nations. The former is based on a general background of Marxian thought which forecasts that enterprises will become larger and larger until finally the community takes them over and operates them as a big enterprise. The latter has a very different origin. It steps from the desire to understand the operation of the economy as a whole. It is "highly influenced by the statistical concepts relevant to national or social accounts and by Keynesian Concepts combined with market analysis which later develop into macro-econometric models." In a market oriented type of economies therefore, the belief is that many detailed "decisions could and should be left to the decentralized system of single enterprises and that guidance by the government might confine itself to indirect intervention with the help of a few instrument only." Jan Tinbergen, Central Planning, Yale University Press, New Haven, 1964, p. 5.

7. Meir, G.M. Development Planning, McGraw-Hill Book Company, New York, 1966, p. 491.

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But with regard to the private sector, the plan has not the power of a directive. It is rather a "desire expressed by creating such incentive as will induce private producers to do exactly the things which are required from them in the plan."⁸ For example, the rate of interest is an important incentive serving to induce the private sector to do what is required from them in the plan. Exchange rates have a bearing on the price of exports and on the cost of imports. A high tax on profits affects the level of foreign investment. Consequently, it can be said that the plan is indicative in the private sector.

Consequently within the context of private ownership of the means of production and reliance upon the price mechanism, a plan is elaborated as a means of systematically coordinating public policies and of enlisting private support for the achievement of common social aims. In a market oriented economy "dès que le Plan existe, l'ensemble social prend conscience de lui-même, du tout qu'il forme et des parties qui le composent."⁹

4. Making explicit external economies and diseconomies of Production.

Professor Viner defines external economies of production as "those which accrue to particular concerns as the result of the expansion of output by their industry as a whole, and which are independant of their own individual outputs". The case of external economies is then the one in which an increase in the firm's production produces benefits which devolve in others. This may arise in at least two ways.

8. Ibid.

9. "As soon as the plan exists, the society becomes aware of itself, of its wholeness, of the parts of which it is made."

Perroux, François, Les Techniques Quantitatives de la Planification, Presses Universitaires de France, Paris, 1965, p. 285.

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Firstly, by expanding its operations the firm may perform a direct service to others. For example, as an industry expands, it may become profitable for new firms to specialize in collecting and disseminating market information or in marketing the industry's product, or in supply it with consultant services. If the expanding industry is localised geographically, the external economies in the form of direct service may be striking: its skilled labour may be trained at local technical schools. For each school there may be enough pupils to make the employment of a full-time teacher worthwhile. The public utility industries may evolve with it, being continuously adapted to its needs. Another example of direct service arises when the expansion of an industry permits another industry to undertake extensive research in order to reduce their cost of operation and to develop superior products. Advantages like these are referred to as pecuniary economies.

Similarly, the second type of advantages, industrial expansion may permit individual firms to purchase raw materials at lower prices. For example, a rise in the production of Ford automobiles will result in an increase in the demand for steel. If there are internal economies in steel manufacturing, steel price may subsequently fall, and so Ford's competitors also will obtain their raw materials more cheaply as a result of the increased output of Ford cars. This type of advantage is called a technological external economy. It arises when an expansion in the operation of one company makes it cheaper to supply services to all the firm in the industry.

Both these types of external economies, and especially those arising out of large scale production, clearly involve divergences between private and social returns. The firm's expansion makes it cheaper for other companies to operate but under the prevailing price system there is no remuneration to the expanding firm for those benefits which it has conferred to others.

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External diseconomies of production involve cases in which an expansion of the scale of a company's output has disadvantageous effects on others. For instance, if increased output on the part of one firm necessitates more trucks in operation, the roads may become crowded making transportation more expensive and time consuming for other companies wishing to ship goods by truck. Another example of such diseconomies is the extra smoke created by greater, say, steel production. Cases like these are abundant, so a distinction is usually made between pecuniary diseconomies and technological diseconomies.

Pecuniary diseconomies occur when an increase in an output causes a rise in its price. This makes it more expensive (in money terms) for other companies to acquire the output of the firm originating the price increase, as a result of scarce factors and perhaps enhanced by the abuse of monopolistic or oligopolistic market power on the part of the supplying firm or firms.

The second type of external diseconomies, technological diseconomies, take place when an increased output by one enterprise requires the use of larger physical inputs by other firms to produce any given result. Such a situation would occur for example when a firm possesses patents of superior technological processes and refuses to allow competitors to use them even when the latter are willing to pay a royalty for this privilege.

Planners are conscious of the effects of both external economies and diseconomies of production. These effects are useful for assessing the advantages and costs of undertaking new projects in a particular area. In an underdeveloped economy, the role that planning plays in such an analysis is to make a serious attempt to identify the true cost of economic development and growth, whether they be reflected in a private company's own profit statement or in the community's gains and losses.

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5. Pinpointing the Necessity of and Providing for an Efficient Administrative Structure.

Most less developed nations attempting to solve their economic and social problems through a multi-annual plan are more and more recognizing the necessity of an efficient administrative structure. For instance, the 1962 "Draft Program for Turkey" states in its first page that "in order to prepare and implement plans it is necessary to undertake a task of administrative reorganization".¹ Delegates at the 1961 Conference of Asian Planners emphasized that "deficiencies in administrative machinery (constitute) a major obstacle to the effective implementation of development plans. The reform of the administrative structure, its strengthening and reorganization... (have) to be carried out urgently if the administration as a whole of each country (is) to be geared to the enormous obligations which planned development (place) up on it".²

Similarly, a report of the Pan American Union concludes that in Latin America "most economic and social development plans are made upon an unrealistic basis ... Usually lacking is an evaluation of the operative capacity of the administrative machine to accomplish that part of the over-all development plan that is the responsibility of the public sector"³. Asia and Latin America are not alone.

In Africa, the existing administrative machinery is usually effective in carrying out the normal police, judicial and revenue collecting functions of government but are not effective in performing

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1. Draft Program for Turkey, Government Printing House, Ankara, 1962, p. 1.
 2. United Nations Economic Commission for Asia and Far East "Economic Development and Planning in Asia and the Far East" Economic Bulletin for Asia and the Far East, United Nations Press, New York, Dec. 1961, p. 80.
 3. Organization of American States. Department of Economic Affairs. Rio Organization and Methods Workshop, Development Administration Program, Washington, D.C. 1961, p. 21.

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the functions required for dynamically developing societies. As an example, the former head of the Egyptian Planning Commission writes: "Far-reaching improvement in public administration are required if the goals of economic and social developments are to be achieved".⁴ In Morocco, the progress of a sugar beet project is delayed because the three agencies involved are unable to agree on their respective roles. In many countries south of Sahara, excessive fragmentation and duplication of functions makes it difficult to get all government entities concerned to do what is needed to carry out projects and programs in accordance with stated policy objectives, assuming that the latter are both sound and realistic.

Thus, the mere fact of attempting to plan a country's development helps to bring the problem of the inadequacy of the administrative machinery to the fore. Wherever development projects have been carried out, it is possible to determine for each sector, the extent to which average costs and time of completion have exceeded original estimates. Experience shows that inadequate administration is the major and frequently persistent reason for increased costs and delayed execution of development projects and programs.

Nor is planning limited to this curtain raising function. It also assists in identifying problem areas. It is indeed, the failure to achieve the objectives set in the first development plan that lead the Government of Burma to examine the effectiveness of the public sector of the country. The Report that followed explained that

4. Adel-Rahman, I.H. and Ramzi, M. "Organizational and Administrative Aspects of Development Planning" (Memo No. 87), United Arab Republic Institute of National Planning, Cairo, Nov. 15, 1961, p. 83.

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"the top most problem and the one for which (a) solution has not yet been found is the lack of experienced executives to manage the newly established industries of the state"⁵. In a parallel study of Indonesian public enterprise, Dr. Mohamed Sadli found that "the most important factor" in explaining low efficiency in "state enterprise is the lack of skill, administrative, technical, and managerial"⁶.

Similarly, the former director of the Pakistan Industrial Development Corporation explained that "experienced industrial and business managers and accountants are simply not available. Some stop gap arrangements have, therefore, to be made if underdeveloped and backward countries are to embark on the industrial road."⁷

The United Nations and The International Bank for Development and Reconstruction have been concerned over the problem for the last two decades. The latter organization in particular has sent experts from its Planning Division to Columbia, Ceylan, Iraq, Jordan, Libya, Mexico, Nicaragua, Spain, Syria, Tanzania, Turkey, Venezuela and Unganda. Analysis of reports on these countries reveals that the problem of inadequate machinery for development exhibits itself in total absence of native technicians, in corruption, retrogressive personnel practices, dilatory procedures, lack of coordination, outdated institutions, disorganization, archaic accounting, and financial controls.

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5. Khin Maung, Lwin "Development of Public Industrial Enterprises in Burma" paper prepared for the Seminar on Management of Public Industrial Enterprises, sponsored by the Government of India and the United Nations, New Delhi, Dec. 1-19, 1959, p. 8 (mimeo).
 6. Sadli, Mohamed "Structural and Operational Aspects of Public Enterprises in Indonesia". Seminar on Management of Public Industrial Enterprise, New-Dehli, 1959, p. 21.
 7. Ayub, M. "Some Aspects of Management of Public Industrial Enterprises in the Economic Commission of Asia, Far-East Regions" Seminar on Management of Public Industrial Enterprises. New-Dehli, 1959, p. 21.

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Another aspect of the problem concerns the structure and the role of the planning organization in the governmental and administrative process. The range of issues involved as contained in most planning documents can be summarized in a series of questions: Should the planning organization be established as an advisory body or as an agency with powers? Where in the governmental structure should it be located in order to function with maximum effectiveness? How should it be staffed and organized in order to facilitate the preparation of a coherent development plan? How can it be coordinated with administrative machinery to tap departmental expertise, minimize conflict, and ensure the implementation of approved projects and programs? How can popular support for the programs be organized most effectively? These are complex questions. Many of the answers that can be given are of necessity either oversimplified or controversial because of the alternative courses that may be opened. Some of the solutions suggested may be applicable to a particular country but not to others. Hence factors such as the existing political and administrative structure, the goals and scope of development and the roles assigned to the public and private sector in reaching planned targets may dictate quite diverse arrangements.

Under these conditions it might be practicable to prepare plans which take account of the administrative capacity of each country. This means that complex forms of planning must be avoided when a nation's administration is not ready for it. In this respect, professor Lewis warns: "No administration should be loaded with tasks more numerous or more delicate than it can handle; the quantity and forms of planning should be limited strictly within the capacity of the machine"⁸ One can approach the problem by providing for an "all or nothing solution".

8. The Principles of Economic Planning, Op. Cit. p. 122.

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Instead of insisting on drastic changes in personnel practices, administrative procedures and organization, professor Waterston suggests⁹ that it might be better to select a few large or otherwise important projects or programs and concentrate on improving administration and organization to the extent required to facilitate the preparation, execution and operation of these projects or programs. These might be in an economic sector or, in geographic regions. Administrative reforms might be centered in a ministry or department on regional organization; or another kind of autonomous or in semi-autonomous corporations or agencies. The establishment of such "nuclei" of administrative reform would, it is true, provide only modest improvement immediately. But it would create "springboards" for more sweeping reforms later.

"The ability to select viable nuclei would be an important determinant of the success of this approach. The ideal nuclei is a project or program in an economic or social sector or in a geographic area where there is a recognized need for economic or social development backed by a powerful group or entity which stays powerful and interested long enough to allow reforms to be institutionalized."¹⁰

The actual number of "nuclei" which could be expected to operate effectively at the same time would depend on what opportunities existed for introducing improved administration at various levels of government.

The World Bank is cooperating with borrowing countries to establish nuclei of administrative reform with Bank loans for specific projects. In Columbia, for instance, the approach provides the necessary impetus for reorganizing the Highway Department, improving

9. Development Planning Lessons of Experiences, Op. Cit. pp. 285-287.

10. Ibid., p. 286.

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disbursement and administrative procedures, higher remuneration for engineers required to fill long standing vacancies, elimination of incompetent personnel, etc. The Bank's willingness to support these reforms with development loans makes it easier for highway officials in the Ministry to obtain the Government's approval for the needed changes.

This realistic approach shows that economic planning has also the capacity of providing for the solution of the inadequacy of government machinery for development and anticipating possible administrative bottlenecks in less developed nations.

Therefore, with respect to the problem of machinery necessary for development, economic planning can be viewed as a flexible, continuing process of collecting and analyzing data on resources use. In assessing the dynamic aspects, projecting desirable future trends, and designing a strategy of resources allocation, economic planning serves four objectives:

1. It directs attention to the problems faced.
2. It helps to identify their nature and scope.
3. It sets out possible alternative means to deal with the problems.
4. It assists in anticipating possible administrative bottlenecks.

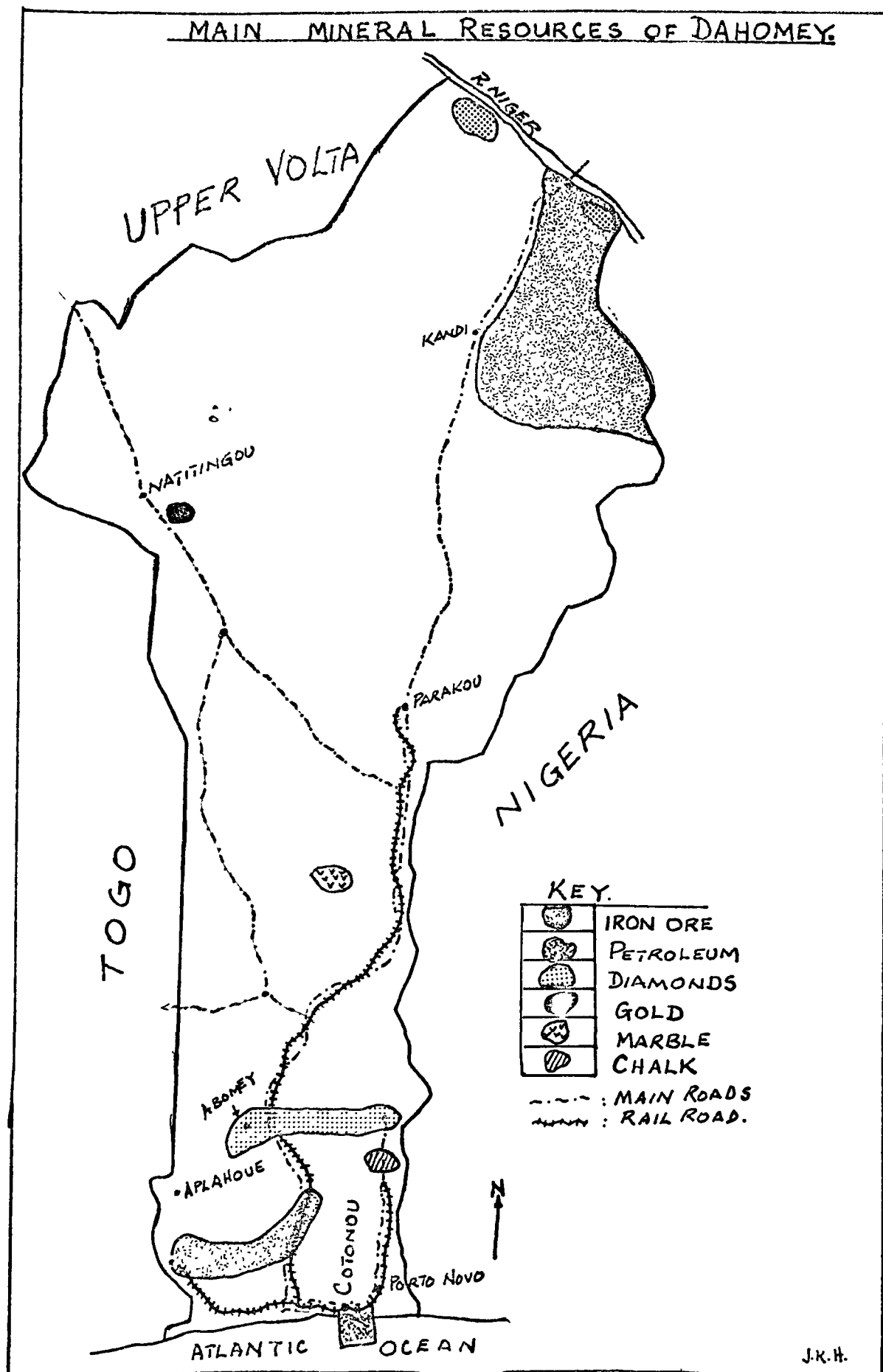
CHAPTER VIECONOMIC PLANNING AND GOVERNMENT BUDGETING IN DAHOMEY

Chapters 2 to 5 examined the theoretical meaning of the planning process. The present and subsequent chapters, 7 to 8 will explain, in terms of applicability, Economic Planning as a means of dealing with the problems faced in Dahomey. However, before analyzing the planning and budgeting efforts, it is necessary to understand the structure of the economy, the economic and non-economic problems of the country and the challenge ahead.

Part 1. Physical Background and the Structure of the Economy.

Dahomey is situated in West Africa between Nigeria and the republic of Togo. The country is 122,000 kilometer square in area or about the same size as the state of Pennsylvania or the Province of Manitoba. Except for the area around the Atakora Mountains in the North, the soil is fertile. There are three main physical zones: the inlands followed by a plateau and their mountains and five geographical zones: the coastal zone, the intermediate zone, the middle zone, the Atakora Mountains, and the Plain of the Niger river.

The coastal zone along the Atlantic ocean is low, fertile, and watered by a series of lakes and rivers from Nigeria to the Republic of Togo. The intermediate zone is a rainy plateau of bush green vegetation sheltering a fertile depression, the "depression de la lama". The middle zone between the grass lands of low latitude and the forest has a Savannah type of vegetation. The atakora Mountains have comparatively poor soils but act as water reserves for Dahomey and the neighbouring states of Niger and Nigeria. Rich and fertile, the plains of the Niger river are the land of potatoes.



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The country is relatively self-sufficient in agricultural products. Corn, Sorghum, Rice,ghams, sweet potatoes, beans and manioc are some of the many foodcrops. Much of these products are still produced on farms at the subsistence level. But during the last five years, the "plantation" or commercial agriculture has greatly increased in importance. Peanuts, coconut palm, oil palm and teakwood are some of the industrial products.

The Peanut is a product of great commercial importance. It is a source of vegetable oil for the manufacture of cooking oils, oleomargarine, soap, and greasing oils as well as animal feed. Peanuts thrive in the Center and Northern Dahomey where sandy soils and warm climate and moderate rainfall prevail throughout a long growing season. The production of peanuts accounted for 15% of the nation's exports in 1961, 7.2% in 1962, and 9.1% in 1963 as shown in table 9. France and the other E.E.C. countries are the main buyers of Dahomey's peanuts.

The Coconut palm is one of the plants in the warm humid regions of the South. The tree (cocoa nucifera) begins to bear fruit from 8 to 10 years after planting. The fruit consist of an outer filious cover enclosing a hard, woody nut lined with "meat". This meat is treated with the aid of modern equipment to produce a diversity of products for foods and drinks as well as a vegetable oil for cooking and for the manufacture of soap and margarine. The oil is exported to France and to the European Common Market.

The Oil palm is a competitor of the coconut in the markets for vegetable oils. The fruit of the palm oil is small, from one to two inches in diameter, yellowish and grows in bunches which may contain as many as 1,000 and 1,500 each. It consists of a soft yellow pericarp and a hard kermel of which the former contains the palm oil proper, the latter the palm kermel oil.

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The oil is pressed from the pericarp with the aid of modern equipment in state owned factories. While much of the oil is used locally, a large surplus is available for export. The oil produced in the state factories is carefully prepared. It has a low content of free, fatty acid and is, therefore, in great demand.

Oil palm exports accounted for 14.6% of total exports of the nation in 1961, 17.4% in 1962, 14.9% in 1963 and 20.2% in 1964 and 51.3% in 1965. The percentages for palm kernel during the same period are: 38%, 43%, 51.7%, 53%, 17%. This means that both oil palm and oil palm kernel account for 52.6% of Dahomey's exports in 1961, 60.4% in 1962, 66.6% in 1963, 73.9% in 1964, and 69.1% in 1965. These figures attest that palm produce is as of now, one of the leading industries in Dahomey's economy.

Palm oil is sold to France, the United States, Holland, West Germany and Italy.

Teakwood (*Tectona grandis*) is one of the precious woods of the rainy and dry climate of the center. The teak tree is in great demand for its strength and durability. At present, the principal stands of teak trees are under scientific management in large state controlled enterprises. However, additional efforts are required to expand and improve the method of cultivation.

The Cattle industry is concentrated in the North. Two principal species comprise the bulk of the cattle in Dahomey. There are the taurine cattle and the zebu or humped cattle. The raising of the first type is still not a separate enterprise but is integrated with a

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system of diversified agriculture. Small scale dairying operations often prevail. As for the second type it is used for non-commercial purposes, chiefly for power. Efforts are being made to modernize and to rationalize this vital industry for the provision of meat and milk.

As suggested by table 11 agricultural products are Dahomey's only exports. As already discussed, palm oil and palm kernels occupy the first and second place in total exports. Then come peanuts with 15.3%, 7.2%, 9.1% and 4.7% in 1961, 1962, 1963 and 1964 respectively. Cotton occupies the fourth rank with 5.1%, 2%, 5.2%, 3.8% and 4.6%. Dahomey is therefore a clear exporter of primary mainly agricultural products.

But if the agricultural activities of the nation are to supply local wants and needs properly and to furnish that which other people desire, attention should be given to:

1. (a) The small size of the estates, the average area cultivated being about 20 to 30 acres and
- (b) subsistence agriculture characterized by family type of exploitation. Cooperative types of management is required to remedy the situation especially in the subsistence sector.

Table 11
**ROLE OF PRIMARY PRODUCTS
 IN DAHOMEY'S EXPORTS**
 (in thousands of Francs and %)

PRODUCTS	1961		1962		1963		1964		1965	
	Value	%	Value	%	Value	%	Value	%	Value	%
Copra	49801	1.4	38881	1.4	51538	1.6	77441	2.4	89767	2.7
Coffee	275741	7.7	242159	9.0	127216	4.0	153356	4.7	108883	3.2
Peanuts	549960	15.3	194591	7.2	286515	9.1	151499	4.7	95770	2.9
Palm Kernels	1358447	38.0	1155153	43.0	1632302	51.7	1748114	53.7	598617	17.8
Karity	59162	1.7	55326	2.0	23992	0.8	105696	3.2	100544	3.0
Oil Palm	522515	14.6	468265	17.4	470495	14.9	655568	20.2	1726419	51.3
Tobacco	62678	1.8	60758	2.0	56854	1.8	43837	1.4	37666	1.1
Cotton	182411	5.1	45387	2.0	163877	5.2	122577	3.8	155445	4.6
Raisin	19017	0.5	20466	1.0	17600	0.8	8033	0.2	13311	0.4
Kapok	3725	0.1	2297	E	76	E	2001	E	1514	E
Other Exports	495601	13.8	415317	15.0	324517	10.3	185903		438887	
TOTAL EXPORTS	3579004	100.0	2698600	100.0	3154982	100.0	3254025	100.0	3366823	100.0

1. E means negligible.

2. Source: Cinq Années de Commerce Extérieur du Dahomey, Direction de la Statistique Cononou, Décembre 1966, p. 25.

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2. Like most tropical farmers, traditional tools are used i.e. the hoe and in some areas, the light plow. When modern plows and heavy agricultural machinery were introduced in some parts, these implements proved to be a complete failure because they brought about a heavy destruction of soil qualities. Research on soil management, application of fertilizer, production technique should be carried out before the indigenous systems of agriculture are gradually superceded.
3. Specialized agriculture is required to provide the nation with grain, poultry, meat, fruits and milk.

Unfortunately accurate statistics on national income are not yet available. But intuitive estimation supported by the United Nations data for some countries in West Africa would give Dahomey less than 200 dollars per capita.

Part 2. Population.

The population of Dahomey is estimated at 2,106 million in 1964. The ratio of man to land is 18.7 per square kilometer. The rate of growth of the population is 2.8% per annum. If this rate is maintained, the population will be 3,500,000 in 1980 that is 1.6 times the present figure.

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Table 11 gives an estimation of the population by administrative regions. The table shows the unequal distribution of the population. The three "departments"; South, South-East, and South-West with an area of 11,722 km square contain 1,062,800 people. This corresponds to a ratio of man to land equal to 91. This means that 50% of the population live in 10% of the total area.

By contrast the North and the Center or 83% of the total area have a ratio of man to land equal to 6 which is less than 1/3 of the national average.

Between these two extremes, the region around the Atakora mountain has a ratio of 35.

Table 12 explains that there are 2% more women than men and that 45.6% of the population is 21 years old or over. This means that the labour force in Dahomey is quite young.

Tables 14, 15 and 16 show the distribution of the population by sectors of activity and by area of dwelling.

Table 14 shows the distribution of the male population in three major sectors: primary (agriculture, fisherie, and forest) secondary (manufacturing activities) and tertiary (services). The table explains that 79.7% of the male population of 15 years and over is employed in primary activity, 6.7% in secondary and 8% in tertiary. This means that 3 men out of 4 are employed in agriculture. Fishing, hunting and cattle raising provide less than 4% of the total male employment.

Table 12

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ESTIMATION OF THE POPULATION
BY ADMINISTRATIVE REGIONS

ADMINISTRATIVE REGIONS	AREA (in Km ²)	POPULATION (in thousand)	RATIO OF MAN TO LAND (Population/Area)
SOUTH:			
Without Cotonou and Quidah	3,195	213.9	67.0
With Cotonou and Quidah	3,222	309.4	96.0
SOUTH-EAST			
Without Porto-Novo	4,684	399.5	85.3
With Porto-Novo	4,700	463.5	98.6
SOUTH-WEST	3,800	289.9	76.3
CENTRE			
Without Abomey and Bohicon		398.7	
With Abomey and Bohicon	18,700	425.1	22.7
NORTH-EAST			
With Parakou	50,100	304.6	6.0
Without Parakou		290.6	
NORTH-WEST			
Without Djouzou		304.0	
With Djouzou	31,200	313.5	10.0
TOTAL DAHOMEY	112,622	2,106.0	18.7

Source: Enquête Démographique au Dahomey, 1961. Resultats définitifs. Ministère de la Coopération, République Française, Paris 1964, p. 22.

Table 13
**PERCENTAGE OF THE POPULATION
 BY AGE AND BY SEX**

Age Groups	Male	Female	Total
0-1	2.6	2.7	5.3
1-4	7.2	7.2	14.4
5-9	8.7	8.1	16.8
10-14	5.1	4.3	9.4
15-19	3.3	3.6	6.9
20-24	2.9	4.8	7.7
25-29	3.4	4.7	8.1
30-34	2.7	3.5	6.2
35-39	3.0	3.0	6.0
40-44	2.1	2.2	4.3
45-49	2.1	1.9	4.0
50-54	1.5	1.4	2.9
55-59	1.3	1.2	2.5
60-64	1.0	0.9	1.9
65-69	1.0	0.7	1.7
70-74	0.5	0.4	0.9
75 and over	0.6	0.4	1.0
TOTAL	49.0	51.0	100.0

Source: République du Dahomey: Aspects Economiques 1966, Ministère de Finance et des Affaires Economiques.
 Cotonou, 1966, p. 4

Table 14
PERCENTAGE OF THE MALE (1) POPULATION ACCORDING TO
PLACE OF DWELLING AND SECTOR OF ACTIVITY

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Place of Dwelling Sector of Activity	RURAL NORTH			RURAL SOUTH					Total Cities	Total Dahomey
	North-East	North-West	Total Rural North	Centre	South	South-East	South-West	Total Rural-South		
PRIMARY SECTOR										
Agriculture	85.6	89.6	87.7	79.5	73.7	80.6	78.7	78.7	11.8	75.9
Cattle raising	6.3	1.2	3.6	0.1	E	E	E	E	E	1.1
Fishing	0.1	-	E	-	6.3	2.2	9.0	3.7	3.9	2.6
Hunting	0.1	-	E	0.1	0.2	E	0.1	0.1	0.2	0.1
TOTAL PRIMARY SECTOR	92.0	90.8	91.3	79.7	80.2	82.8	87.8	82.5	15.9	79.7
SECONDARY SECTOR										
Traditional Handicraft	1.4	0.6	1.0	0.6	0.5	1.3	0.1	0.7	1.9	0.9
Industrial and Modern Handicraft	0.2	1.2	0.7	4.5	5.2	3.7	4.2	4.3	20.2	4.5
Building and Public Work	-	0.3	0.3	1.8	1.3	0.6	0.2	-	-	-
TOTAL SECONDARY SECTOR	1.6	2.1	2.0	6.9	7.0	5.6	4.5	5.0	22.1	5.4
TERTIARY SECTOR										
Commerce, Banking, Insurance	1.0	1.0	1.0	2.4	2.1	4.1	1.1	2.6	13.1	3.0
Transport	0.1	0.1	0.1	0.6	1.2	0.5	0.9	0.7	8.1	1.2
Public Services	0.7	1.0	0.8	1.2	3.1	0.8	0.5	1.3	16.5	2.4
Others	0.1	0.2	0.2	2.4	0.7	2.2	0.5	1.6	5.4	1.5
TOTAL TERTIARY SECTOR	1.9	2.3	2.1	6.6	7.1	7.6	3.0	6.2	43.1	8.1
TOTAL ALL SECTORS	95.5	95.2	95.3	93.3	95.2	96.0	95.5	94.9	87.3	94.5

(1) Age 15 years and over.

(2) E means negligible and . means figure not available

(3) Source: Enquête Démographique au Dahomey, 1961. Resultats définitifs. Ministère de la Coopération République Française, Paris, 1964. p. 97

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Moreover traditional activities like goldsmiths, boat makers use only 0.9% of the males. By contrast modern works like mechanics, bicycle repairings, carpenting and construction use 5.8% of the male population. One finds that public services use 2.4% of the males and commerce 3%. The low percentage of the male population engaged in commerce is explained by table 5.

Table 15 shows the role of women in national economy.

Dahomean women's participation in national life is a unique phenomenon in Africa. Almost everywhere else on the continent women do not have a profession, and are usually called "ménagères" or housewives especially in predominantly moslem countries. They usually lend their help to their husbands or to their fathers. This results in low percentage of female employment in secondary and tertiary sectors.

By contrast 50% of Dahomean ladies work in tertiary sector with the majority in commerce: 49.6% in comparison with 15% in agriculture and 6.9% in traditional handicrafts. The table also shows that 9% of women in the North are employed in services and 20% in traditional handicrafts.

By contrast 2% of the women in the South are employed in traditional activities and 65.6% in commerce. The corresponding figures for the cities are 1.3% and 56.7% respectively. The employment of 50% of female population in tertiary sector and 7.5% in secondary sector attest the monopolistic position of Dahomean women in commercial employment and explains the reason why only 8% of the male population work in that

Table 15

**PERCENTAGE OF THE FEMALE (1) POPULATION ACCORDING TO
PLACE OF DWELLING AND SECTOR OF ACTIVITY (2)**

Sector of Activity \ Place of Dwelling	Rural North			Rural South					Total Cities	Total Dahomey
	North-East	North-West	Total Rural North	Centre	South	South-East	South-West	Total Rural South		
PRIMARY SECTOR:	0.1	24.7	12.7	24.0	17.4	5.1	31.3	18.6	1.3	15.4
Agriculture	0.1	24.6	12.6	23.9	17.4	5.1	31.2	18.5	1.3	15.3
Others	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0	0.1
SECONDARY SECTOR:	25.5	15.5	20.4	2.2	1.0	3.1	3.4	2.5	5.1	7.6
Traditional Handicraft	25.4	15.3	20.3	1.6	0.5	2.8	2.9	2.1	0.9	6.9
Others	0.1	0.2	0.1	0.6	0.5	0.2	0.5	0.4	4.1	0.7
TERTIARY SECTOR:	8.7	9.5	9.1	60.0	60.9	79.6	58.0	65.8	58.9	50.0
Commerce	8.6	9.5	9.0	59.5	60.7	79.5	57.9	65.6	56.7	49.6
Public Services	E	E	E	0.5	0.2	0.1	0.1	0.2	1.2	0.4
TOTAL ALL SECTORS	34.3	49.7	42.2	86.2	79.3	87.8	92.7	96.9	65.3	73.0

NOTE:

(1) Age 15 and over

(2) Main activity

(3) E means negligible

(4) Source: Enquête Démographique au Dahomey, 1961. Résultats Définitifs, Ministère de la Coopération Republique Française, Paris 1964, p. 99

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sector. Thus, there is a natural distribution of the population in the various sectors: males are employed in the primary and secondary sectors while the tertiary sector is exclusively in the hands of females.

Table 16 summarizes the distribution of the total population according to place of dwelling and sectors of activity. Primary sector accounts for 45.5% of total employment. Table 14 has shown that 79% of the male population are employed in that sector. Dahomey is therefore a predominantly agricultural country since: (1) agricultural production predominates and, (2) the majority of the labour force is engaged in agriculture.

The preceding table has shown that the tertiary sector is in the hands of the female population. However, an analysis of the type of business enterprise in that sector shows that a great majority is of small retail type. Consequently, economic and sociological studies are required to determine the role of such activities in the economic development of the country and their future implications on the socio-professional structure.

The wage earners represent 37% of the total population. They are split into white collar "commis" and maintenance workers. The two parts are unskilled workers and therefore are threatened by unemployment.

There is substantial seasonal and disguised unemployment both in agriculture and industry, creating an added problem to the availability of additional jobs for the younger generation.

Table 16

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**PERCENTAGE OF THE TOTAL (1) ACTUAL POPULATION
ACCORDING TO PLACE OF DWELLING AND SECTOR OF ACTIVITY (2)**

Place of Dwelling Sector of Activity	RURAL NORTH			RURAL SOUTH					Total Cities	Total Dahomey
	North-East	North-West	Total Rural North	Centre	South	South-East	South-West	Total Rural South		
PRIMARY SECTOR	45.2	58.6	52.1	49.1	47.3	40.4	56.5	47.7	7.9	45.5
SECONDARY SECTOR	13.8	8.6	11.1	4.3	4.2	4.2	4.0	4.2	15.5	7.2
TERTIARY SECTOR	5.4	5.8	5.6	35.9	35.3	46.9	33.5	38.7	51.9	30.4
TOTAL ALL SECTORS	64.4	73.0	68.8	89.3	86.8	91.5	94.0	90.6	75.3	83.1

(1) Both Male and Female of 15 years old and over

(2) Main Activity

(3) Source: Enquête Démographique, au Dahomey, 1961. Résultats Définitifs, Ministère de la Coopération République Française, Paris, 1964, p. 100

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Part 3. Problems in International Economic Relations.

Deficit on Current Account. Table 17 "Export Earnings, Value of Imports, their Rates of Fluctuation and Trade Balance" shows that exports increased from 2,233 million francs in 1950 to 3,367 in 1965 or by 150.7%. This increase was almost continuous on an annual basis except for 1960/1961 when exports decreased in value from 3,579 to 2,699 million francs. Imports on the other hand increased from 2,137 to 8,491 million francs during the same period or by 397.3%. Except for the 96 million surplus in 1950, this resulted in increasing the balance-of-payment deficit during the period from 1,502 million francs in 1950 to 5,124 million francs in 1965.

Unfortunately, no capital account statistics are available. But the deficit on current account is a distinct danger signal because foreign exchange required to pay for the excess of autonomous imports over autonomous exports are usually financed by a compensatory import of capital. The trend towards increased deficits on current account cannot continue without impairing the country's capacity to procure additional reserves by borrowing or drawing on the I.M.F.

Terms of Trade. Another international economic problem concerns the terms of trade. Table 18 "Exports, Imports Prices and Terms of Trade Dahomey 1960-1965" shows that the ratio of the indexes of export prices to those of import prices fluctuated between 105.2 and 86.9 during

Table 17
**EXPORT EARNINGS, VALUE OF IMPORTS,
 THEIR RATES OF FLUCTUATION
 AND TRADE BALANCE. DAHOMEY 1950-1965**
 (in millions of francs and %)

	1950	1959	1960	1961	1962	1963	1964	1965
Export Earnings	2,233	2,833	4,513	3,579	2,699	3,154	3,254	3,367
Rate of Fluctuation	100%	125.8%	202.0%	160.1%	120.8%	141.2%	145.7%	150.7%
Value of Import	2,137	4,335	7,642	6,269	6,627	8,249	7,762	8,491
Rate of Fluctuation	100%	202.8%	358.0%	293.3%	310.1%	386.0%	363.2%	397.3%
Trade Balance	+ 96	-1,502	-3,129	-2,690	-3,928	-5,094	-4,508	-5,124
Export — x 100 Import	104%	65%	59%	57%	41%	38%	42%	39%

Source: République de Dahomey, Aspects Economiques, 1966.

Ministère des Finances et des Affaires Economiques, Cotonou p. 37

Table 18
EXPORTS, IMPORTS PRICES, AND TERMS OF TRADE
DAHOMÉY, 1960-1965

Year	PRICE INDEXES		Terms of Trade
	Exports	Imports	
1960	41.860	39.820	105.2
1961	38.280	39.824	96.1
1962	38.887	41.537	93.7
1963	37.864	45.807	82.8
1964	36.248	45.316	79.9
1965	40.854	47.083	86.9

Source: République du Dahoméy, Aspects Economiques 1966. Ministère des Finances et des Affaires Economiques, Direction des Affaires Economiques, Cotonou, 1966, p. 41.

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the period considered-corresponding to a steady deterioration in the nation's terms of trade. In 1964 the deterioration reached the critical point of 79.9% or 25% below the 1960's level. One might argue that this problem is common to all less developed countries because prices of raw materials, which they export mainly, have gone downwards while prices of manufactured products which they import have gone upwards. This reasoning is not helpful in solving Dahomey's particular problem.

Research is required to determine the nature of the problem. The research should be geared to the determination of the forces that alter pre-existing relationships among factors of production and cause changes in output and demand. The cause of the deficit could be changes in population, productivity, technology or consumer's preference. It could arise from inflation, changes in national income, prices, rate of interest, disequilibrium in the country's rate of exchange or unbalanced economic development.

The research would point to the type of policy measures to take in order to bring about adjustment to the persistent deficit in the balance of payments. These could involve a reorientation of domestic production and consumption; that is, more resources could be devoted to exports and/or there could be a lower consumption of imports.

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Part 4. Economic Planning in Dahomey.

"The Economic and Social Development Plan of the Republic of Dahomey for the period 1966-70 is a guiding instrument aimed at organizing and accelerating the economic and social progress of the country"¹

The plan is composed of a number of projects able to² "contribute to the development of the country." Four projects make up the rural development sector, four the industrial and commercial development, and five the infrastructure sector.

I - Rural Development.

The plan seeks to improve the standard of living of the masses in rural areas, 34% of total investment and 46% of public investment will be spent on agricultural production, forest, animals, and rural infrastructure.

Table 19 summarizes the objectives of agricultural production. It is planned to spend 9,027,715,000 francs on agricultural production as follows: 1,700 million on cotton, 4,300 million on new palm oil plantations, 1,300 million on peanuts and 560 million on foodcrops.

As for forests, the objective sought is the planting of 5,000 acres of teakwood and 25,000 acres of anarcadium and the introduction of new types of plants which would grow faster than the existing ones.

1. "Le Plan", République du Dahomey, Aspects Economiques, op. cit. p. 92

2. Ibid, p. 93.

AGRICULTURAL PRODUCTION

Products	1966	1970	Remarks
Coffee	1,150 (1)	2,000 (1)	The growing of 17,000 hectares of special palm trees
Cotton	7,000 (1)	14,000 (1)	
Tobacco	1,200 (1)	1,800	
Oil Palm	585,000 (1)	620,000 (1)	
Coco-trees	19,575,000 (2)	28,440,000 (2)	
Peanuts	35,110 (1)	53,030 (1)	
Foodcrops	1,415,709 (1)	180,953 (1)	
Gardening Products	6,972 (1)	8,260 (1)	
Rice	850 (1)	6,650 (1)	

Notes: (1) in tons
(2) in nuts

Source: "Le Plan" Republique du Dahomey: As prets Economiques. Ministère des Finances et des Affaires Econom
Cotonou, 1966, p. 94

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Total investment required to carry out this project would amount to 350 million francs between 1966-1970.

Animals such as cows, sheep, pigs, chickens account for a major proportion of farm income. The livestock production amounted to 3 billion francs in 1965. Efforts to increase livestock production and to modernize and reform channels of distribution of dairy products in urban centers, would cost 528 million francs in sheep and cattle raising between 1966-1970; 200 million of this amount will be spent in the Okpara experimental farm.

Fishing provides one of the main source of cheap animal protein in Dahomey. Every year 30,000 tons of fish are landed mainly from fresh water fisheries in lagoons and rivers. But fishing in lagoons has shown a downward trend and it is necessary to compensate for this decline by the development of river and sea fishing with greatest emphasis on sea fishing during the plan's period. As for fishing for industrial purposes, the objective is to increase production from 9,000 tons in 1966 to 15,000 tons in 1970. Total investment would amount to 518 million.

Two types of projects concern the rural infrastructure sector of the plan. These are: underground water and surface water.

With regards to the former, it is proposed to dig 275 wells in central and northern Dahomey. Of these 25 will be dug in the South. Total expenditure would amount to 600 million francs.

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As for the latter, a series of projects is to be carried out. These are: improving the basin of the main rivers; (1) operating an experimental farm; (2) improving the Oueme Valley; (3) planting 7,500 acres of rice; (4) cultivating the Dahomean part of the Niger Valley; constructing small dams in the North-West. The total cost of the program would be 1,040 million francs.

II - Industrial and Commercial Development.

This sector is composed of a number of programmes.

1. Geological surveys, cartography and research in the field of water survey constitute the first program. The geological survey concerns prospection of gold, diamonds, phosphate, marble and oil.

About 1 ton of gold deposit was discovered in 1936, around the Atakora Mountains. At present the population of the area is being initiated to gold washing.

The Shell Company Limited is prospecting phosphate in the South.

Marble has been discovered in the Oueme Valley. It is estimated that more than 5 million tons are available for commercial exploitation.

The Union Oil of California has discovered oil in the South. Engineering Works are being completed in order to exploit the "Black Gold".

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2. As for industrialization, two projects are important because of their external economic impact and the amount of employment created. These are:

A cement factory which would produce for the national market as well as those of the republics of Togo and Nigeria.

A textile factory utilizing native cotton would satisfy 50% of Dahomey's wants.

Total expenditure on these two projects would be 5 billion francs.

3. The plan also speaks about a better exploitation of national potential in tourism. Hotels will be built in the South and in the central region. Improvements in road and air facilities for tourist expansion will cost 114 million francs.

4. The implementation of the plan would provide the necessary stimulus to the tertiary sector especially in the field of traveling, commerce, and other services. Total private investment, mainly of Dahomean origin, could amount to 4,500 million francs between 1966-1970.

III - Infrastructural Sector.

1. ROADS. The plan recognizes the importance of infrastructure in the development of national production. Improving and expanding the existing highways and roads is one of the main objectives

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in this vital sector. Attention will be focused on the Togo-Nigeria highway, Cotonou Malawville, and Parakou - Porga roads. In addition, 1,080 kilometers of new roads will be built in rural areas. Total expenditure on repair and maintenance would amount to 4,200 million francs.

2. RAILWAYS. Like the road sector, the plan proposes to improve and expand existing railway networks. Particular attention will be paid to the interstate owned O.C.D.N. (Organization Commune Dahomey Niger). Total investment in material and repair will be 1 billion: 500 million will be financed by retained earnings and 500 million by stock issues.

3. PORTS. Additional work to expand the National Port will cost 500 million francs. A new fishing harbour with a capacity of 15,000 tons will be built for an estimated cost of 380 million francs.

4. AIRFIELDS. Efforts will be made to improve the nation's airports and to introduce new equipment in Cotonou and Parakou Airports. Total cost of the program would amount to 255 million francs of which 130 million would come from the retained earnings.

5. POST OFFICES AND TELEGRAPH. The plan objectives are to improve postal services, inter-regional and international and to bring it up-to-date. Total cost of this program will be 390 million francs. Of this amount 250 million will be financed by l'Office des Postes et Telecommunications, a government corporation.

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Tables 20 and 21 Summarize Sources and uses of Funds. The table shows that of the 35.4 billion investment 24.3 billion or 75% of total investment will come from external sources both private and public. Reliance on foreign capital is therefore the major condition of plan implementation.

IV - Criticisms of the Plan.

1. Lack of Efficient Machinery of Development and Inadequacy of the Planning Process. The plan has been made without proper provision of an efficient machinery of development; this includes a competent and efficient Civil Service, adequate structure for the Central Planning Agency, annual planning, efficient machinery for reporting on plan progress and implementation. It has been drawn up by a group of technicians working apart from the normal governmental process. As a result instead of being an instrument for reaching policy decisions, planning has become an exercise in a statement of the political situation. To be of greater operational value, the plan must bring the various decision-making groups of the society- government, labour, private organizations, farmers - into the process of its formulation so that through consultation and agreement, a whole array of changes in policies and institutions can be made.

2. Lack of Short and Long Term Objectives. The plan is for the period 1966-1970 and it is composed of a "number of projects able to contribute to the development of the country." ³ Therefore, the plan is

3. Ibid, p. 92.

Table 20
SOURCES OF FUNDS

A INTERNAL SOURCES

1 PUBLIC FINANCING

National Investment Funds	1,000
Funds for Roads	1,300
Cities and Regional Budgets	600
Government Corporations and Semi autonomous enterprises	1,100
Free participation of the population to developmental work	500
Sub-TOTAL	4,500

2 PRIVATE FINANCING: ESTIMATION

Rural hydraulic equipment	300
Urban Construction and Equipment	1,800
Industrial and Commercial Handicraft	1,800
Transportations	2,500
Education	100
Social Services	050
Private Administration (Churches and Trade Union)	050
Sub-TOTAL	6,600

B EXTERNAL SOURCES

1 PUBLIC FINANCING

European Development Funds	5,500
Funds for Aid and Cooperation of the French Government	5,500
Public Loans from Banks	5,000
U.S. Agency for International Aids	1,500
Specialized Agencies of the U.N.	1,200
Other Countries	1,800
Sub-TOTAL	20,500

2 PRIVATE FINANCING

Industrial Sector	3,000
Commerce, Services and Transportation	300
Education	100
Health and Social Services	100
Foreign Administration	300
Sub-TOTAL	3,800

TOTAL A + B . . . 37,400

Source: "Le Plan" République du Dahomey Aspects Economiques, Ministère des
Finances et des Affaire Economique, Cotonou, 1966, p. 101

Table 21
USES OF FUNDS
 (by Sectors)
 (In millions of Francs)

134C

1 RURAL SECTOR

Agriculture	9,029
Forest	350
Cattle, Sheep breeding	528
Fishing	518
Hydraulics	1,640

TOTAL 12,065

2 COMMERCIAL AND INDUSTRIAL SECTORS

Underground resources	407
Industries	4,856
Tourism	114
Commerce and Services	4,557

TOTAL 9,934

3 INFRASTRUCTURE

Means of Communications	5,942
Airways	255
Post and Telecommunication	389
Urban Equipment	3,664

TOTAL 10,250

4 SOCIAL SERVICES AND ADMINISTRATIONS

Education	1,211
Health	520
Public Support	214
Administration of the Nation	734
Economic Research	200
Other	2,172

TOTAL 5,051

5 TOTAL (1 + 2 + 3 + 4)

37,400

Source: "Le Plan" Republique du Dahomey Aspects Economique, Ministère des Finances et des
 Affaire Economiques, Cotonou, 1966

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a collection of projects for the medium term. Perhaps as a result of the unfamiliar techniques of plan making, the document does not define any clear short and long terms outlook of the economy. It is not yet a comprehensive and consistent set of objectives and targets for the direction of national economic development and growth, for the determination of the solution of critical problems in the way of further progress, for the complex development of the various regions, and for raising, deliberately and consciously, the degree of well-being of the population.

3. Lack of Inter-Sectoral Coordination of Investment. There are references to developing priorities in the rural sector in order:

- a "to raise the standard of living of the masses;
- b to meet the increase in consumption due to the rapid increase in population;
- c to develop exports in order to reduce the disequilibrium on current account;
- d to prepare the expansion of the industrial sector, of transport and agricultural products",⁴ but no real attempt is made to formulate or relate policies to stated objectives. Nor is an effort made to establish clear priorities for projects on the basis

4. Ibid, p. 93.

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of uniform economic, technical and administrative criteria or to evaluate the feasibility of the programmes as a whole in relation to available raw materials and supply of technicians, skilled manpower, management and funds.

Part 5. Government Budgeting in Dahomey.

Each year during the summer the Minister of Finance writes a formal letter to his colleagues requesting them to have the estimates of the several departments for the following fiscal year prepared and submitted by a certain date to the Ministry of Finances.

When the departmental estimates are received they are assembled by officers of the Budget Division. Comparisons are made with the expenditures of previous years, and digests of the supporting data furnished by departments and of other pertinent information are prepared. The Budget Division reviews each departmental submission in the light of probable revenues and of government policy generally, usually consulting the appropriate Minister and calling departmental officers before it. It may reject or reduce an expenditure proposal. Unresolved differences of view are usually referred to the Minister of Finance for his final decision. When the Budget Division is satisfied with the substance and form of the estimates they are submitted to the Council of Ministers for final consideration. After approval by the Council, they are laid before Parliament with a message from the Minister of Finance known as "Loi des Finances".

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Table 22 reproduces a sample of the estimates of the Department of Public Works for the fiscal year 1966-67.

Expenditures are classified by the administrative or spending units to which money will be voted, and, within each unit by the object of the expenditures, e.g., wages and salaries, materials, travel expenditures, grants. The detail is such as will enable Parliament to be satisfied that the money voted has been spent with due care, honesty, and economy for the exact purposes for which it was devoted. In other words, the detail is designed for budgetary control. As such the nation's budgetary system suffers a number of shortcomings:

1. - The accounts are kept primarily to ensure the "accountability" of officers spending public money to legislators authorizing the expenditure. The information the accounts provide is not usually in a suitable form for decision-making.

2. - The object classification for budgeting and accounting merely highlights the means of doing things and not what is sought to be done or what is actually done. Used in planning and programming, it would tend to obscure the identity of the plan's programmes and projects as it would render it difficult to ascertain the benefits or results desired for expenditure. The drawbacks of the techniques are the absence of any distinctive criteria for the selection and phasing of projects and a lack of comprehensiveness in the formulation of the accounting criteria on the expenditure side of financial management.

Chapter 6 attempts to suggest a remedy to these weaknesses and offers some suggestions for a more meaningful classification of government expenditures.

NOMENCLATURE BUDGETAIRE	Dotations Initiales	Crédits annulés	Crédits supplémentaires ouverts	Nouvelles dotations
SECTION 308				
Ministère des Travaux publics, des Transports, des Postes et Télécommunications				
CHAPITRE 308-01 Cabinet du Ministre (Personnel)				
Art. 1. - Eléments permanents de rémunération	9,800,000	1,500,000		8,300,000
Art. 2. Indemnités éventuelles diverses				
Art. 3. Frais de tournées				
Total du chapitre 308-01	<u>9,800,000</u>	<u>1,500,000</u>		<u>8,300,000</u>
CHAPITRE 308-02 Cabinet du Ministre (Matériel)				
Art. 1. Hôtel et logement	288,000			288,000
Art. 2. Frais de bureau et fonctionnement	862,000			862,000
Art. 3. Frais de transport	500,000			500,000
Total du chapitre 308-02	<u>1,650,000</u>			<u>1,650,000</u>
CHAPITRE 308-03 Direction des Travaux publics (Personnel)				
Art. 1. Eléments permanents de rémunération	80,886,000	4,000,000		76,886,000
Art. 2. Indemnités éventuelles diverses				
Art. 3. Frais de tournées				
Total du chapitre 308-03	<u>80,886,000</u>	<u>4,000,000</u>		<u>76,886,000</u>
CHAPITRE 308-04 Direction des Travaux publics (Matériel)				
Art. 1. Frais de bureau et fonctionnement	4,000,000			4,000,000
Art. 2. Matériel technique	1,500,000			1,500,000
Art. 3. Frais de transport	3,000,000			3,000,000
Art. 4. Frais d'études	7,000,000			7,000,000
Art. 5. Fonctionnement et grosse réparation du phare				
Total du chapitre 308-04	<u>15,500,000</u>			<u>15,500,000</u>
CHAPITRE 308-05 Service de l'hydraulique (Personnel)				
Art. 1. Eléments permanents de rémunération	12,127,000	600,000		11,527,000
Art. 2. Indemnités éventuelles diverses	520,000			520,000
Art. 3. Personnel occasionnel	570,000			570,000
Total du chapitre 308-05	<u>13,217,000</u>	<u>600,000</u>		<u>12,617,000</u>
CHAPITRE 308-06 Service de l'Hydraulique (Matériel)				
Art. 1. Frais de bureau et fonctionnement	619,000			619,000
Art. 2. Matériel technique	200,000			200,000
Art. 3. Frais de transport	650,000			650,000
Art. 4. Frais d'Etudes d'hydrauliques	2,000,000			2,000,000
Art. 5. Appronfondissement des puits				
Art. 6. Etudes et grosses réparations d'ouvrages hydrauliques (Salaires et dépenses de matériel)	500,000			500,000
Total du chapitre 308-06	<u>3,969,000</u>			<u>3,969,000</u>

NOMENCLATURE BUDGETAIRE	Dotations initiales	Crédits annulés	Crédits supplémentaires ouverts	Nouvelles dotations
CHAPITRE 308-07 Subdivision des Techniques Industrielles (Personnel)				
Art. 1. Eléments permanents de rémunération	33,300,000	700,000		32,600,000
Art. 2. Indemnités éventuelles diverses				
Total du chapitre 308-07	33,300,000	700,000		32,600,000
CHAPITRE 308-07 Subdivision des Techniques Industrielles (Matériel)				
Art. 1. Frais de bureau	650,000			650,000
Art. 2. Matériel technique	1,500,000			1,500,000
Art. 3. Fonctionnement des ateliers généraux	17,500,000			17,500,000
Art. 4. Frais de transport	750,000			750,000
Total du chapitre 308-08	20,400,000			20,400,000
CHAPITRE 308-09 Service des Mines (Personnel)				
Art. 1 Eléments permanents de rémunération	13,794,000	3,794,000		10,000,000
Art. 3. Frais de tournées				
Total du chapitre 308-09	15,160,000	3,794,000		11,366,000
CHAPITRE 308-10 Service des Mines (Matériel)				
Art. 1. Frais de bureau	734,000			734,000
Art. 2. Matériel technique	4,500,000			4,500,000
Art. 3. Frais de transport	650,000			650,000
Art. 4. Prospection et recherches	20,000,000			20,000,000
Total du chapitre 308-10	25,884,000			25,884,000
CHAPITRE 308-11 Service Topographique (Personnel)				
Art. 1. Eléments permanents de rémunération	54,484,000		200,000	54,684,000
Art. 2. Prime de rendement	850,000			850,000
Art. 3. Personnel occasionnel				
Art. 4. Frais de tournées				
Total du chapitre 308-11	55,334,000		200,000	55,534,000
CHAPITRE 308-12 Service Topographique (Matériel)				
Art. 1. Frais de bureau	1,000,000			1,000,000
Art. 2. Matériel technique	3,000,000			3,000,000
Art. 3. Frais de transport	4,000,000			4,000,000
Total du chapitre 308-12	8,000,000	10,504,000		8,000,000
Total de la section 308	283,100,000	10,594,000	200,000	272,706,000

CHAPTER VIINEED FOR IMPROVED PLANNING AND BUDGETING IN DAHOMEYPart 1. Creating An Efficient Machinery for Development.

Dahomey became independent in 1960. With the withdrawal of the personnel of the Colonial Power there arose the urgent need to replace key personnel while at the same time to build a new public service from the ground up. After achieving self governing status the nation has witnessed periodic political instability resulting in frequent changes of government and periodic interference by the military in civilian affairs. Administrative reform which requires a large element of stability and responsibility, thus became more difficult to achieve.

The greatest single obstacle to the economic development and social progress of Dahomey continues to be a shortage of trained men and women able to fill the many new posts created.

Government offices are overstaffed at the lower level and understaffed at the top. As a result, there is an intolerable congestion of business in the office of the minister and his assistants and many decisions essential to the rapid and effective implementation of a program of national development are frequently delayed.

There exists no test of competence for entrance or promotion in the public service. Political favoritism is rampant. The relative low level of salaries leads to corruption, moonlighting and sometimes conflicts of interests in some sectors. Thus discipline, integrity,

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courtesy and morale have not as yet developed to a level which would give Dahomey an effectively working administration.

The traditional colonial system of education for an elite offers little preparation and inspires less appreciation for the practical manual and technical skills required for the introduction of scientific and technological methods.

Despite these handicaps the citizens which are unacquainted with the difficulties involved expect the government to do miracles. Demands for utilities such as adequate water supplies, drainage, highways, transportation facilities, power and communications networks "swamp" the newly formed ministries. Requests multiply for schools, hospitals, housing, agricultural implements and supplies, and for the establishment of industrial, commercial and financial enterprises. At the same time, the government has to deal with social dislocations such as mass migration from rural areas to urban centers and the resultant development of large pockets of unemployment in large cities.

The state is therefore compelled to correct the serious imbalance between aspiration and performance, i.e., between the needs to be met and the inadequacy of the machinery to make and to implement programmes of economic and social progress. The demands of the people upon the government have become insistent. The people are less and less resigned to live in poverty, ignorance, and idleness. The government dares no longer to continue its present role of preserver of the

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"status-quo" without creating social disorganization, economic depression, and administrative confusion. The state must therefore act more and more as the organizer and the accelerator of economic and social change. It must behave as the prime mover and stimulator of national development. It must take upon itself the responsibility for the direction and utilization of manpower, natural resources, and the fast-growing technology of the modern world for the creation of an environment conducive to widespread economic and social well-being.

The government, however, cannot achieve everything at once, because of the limitation of scarce resources, manpower, capital and technology. By attempting to do too much at once, it may even prevent the completion of any single project. But it cannot postpone everything. In this race against time, and under the eager expectation of its peoples, the government must adopt an orderly and far-reaching plan and a courageous method of determining and implementing priorities.

Reorganization and reorientation of the Civil Service is one of those priorities. For public administration is the machinery used by the state to place itself in a position to make plans and programmes that can be carried out and to implement the plans and programmes it has made. To an ever-increasing degree the effective utilization of national resources depends upon the adoption of sound economic and social programmes whose success in turn depend upon an effective public service.

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The establishment of a competent and impartial civil service commission must therefore have high priority on the agenda of national development if other goals are to be achieved. This commission would be acting as a central agency for the supply and demand of "know-how" engineers, economists, agronomists, architects, administrators, etc. It would also be empowered to set the requirements for recruitment, and examine new applicants. As such it would be in a position to help ministries and other public agencies to fill gaps in skilled personnel.

In cooperation with the "Haut Commissariat du plan" (Central Planning Agency) the Civil Service Commission would then take the necessary steps towards improving and reorienting the existing administrative structure gradually. For instance, it could set up a committee to make recommendations to the government; its chairman could chair the present "National Scholarship Commission" for the training of top civil servants at home and abroad. It is true that administrative reform requires a sizeable commitment in terms of men, money, and materials; it also requires a high standard of leadership, and sustained, and continuous attention. But the present state of affairs cannot continue without impairing the proper functioning of the government.

Another priority, which deserves special attention is "L'Organe National de Contrôle" (The National Body of Auditing) provided by article 101 of the new constitution:

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"Il est institué un Organe National de Contrôle rattaché à la Présidence de la République.

Il a pour but de protéger le patrimoine national et de veiller à la bonne gestion des affaires de l'Etat.

Sa composition, son organisation et son fonctionnement sont déterminés par la loi."

This initiative is welcome. The experience of some countries in the field portrays useful lessons. In this respect the Canadian system has the following three distinguishing characteristics:

"(i) It obliges the Executive to account for the expenditures incurred, by means of annual financial reports.

(ii) It involves an audit by an officer responsible to the House (the Assembly of democratically elected representatives of the people).

(iii) It contemplates consideration of a reporting upon the audited accounts by a standing committee of the House".

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1. "It is created a National Body of Auditing attached to the Presidency of the Republic. Its aim is to protect the Common Good and to preserve the proper management of the affairs of the State. Its composition, organisation, and functioning are determined by law." (Unofficial translation) "Projet de Constitution" in L'Action Populaire, Friday March 22 1968, Cotonou, 1968, p. 6.
 2. Stevenson, Ian, "Functions of the Auditor General", unpublished lecture at Carleton University, Ottawa, January 18, 1963, p. 1.

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The independence of the Auditor General from the Government of the day is a principle of paramount importance. It is assured by the Financial Administration Act (section 65) which provides that his salary be paid directly from the Consolidated Revenue Fund, instead of being dependent on annual Parliamentary appropriations and which also provides that he may be removed from office only by means of a joint resolution of the Senate and the House of Commons.

Another distinguishing feature of the function of the Auditor General's responsibilities is that he has no administrative responsibilities associated with the issue of public monies, the examination of account before payment, or the accounting for expenditures incurred.

Freedom from administrative financial responsibilities, while still being concerned with financial controls maintained by administrative officers, is of considerable importance, for it avoids a conflict of interests. This point of view also prevails in the United States Comptroller General's System. It is well spelled out in the 1937 President's Committee on Administrative Management:

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"Through the accounting system current control over expenditures is exercised. This function is often confused with the function of audit. Current control involves final decisions as to proposed expenditures and the availability of funds. An audit is an examination and verification of the accounts after transactions are completed in order to discover and report to the legislative body any unauthorized, illegal, or irregular expenditures, any financial practices that are unsound, and whether the administration has faithfully discharged its responsibility.

"A true audit can be conducted only by other officers than those charged with the making of decisions upon expenditures. No public officer should be authorized to audit his own accounts or financial acts and decisions. The maximum safeguard is provided when the auditor is entirely independent of the administration and exercises no executive authority. The control of expenditures is essentially an executive function, whereas the audit of such expenditures should be independent of executive authority or direction."³

The Canadian and the U.S. experiences in auditing attest that a clear-cut distinction should be made between the functions of fiscal control (or pre-audit) which refers to approval prior to incurrence of an obligation or expenditure, and audit (post-audit) or review of such expenditures. To be specific, the role played by the "Inspecteurs des finances" in Dahomey is essentially a fiscal control (or pre-audit). Therefore, any new legislation which would provide for the functions of the Auditor General should make sure that the pre-audit functions and the post-audit functions are not vested in the same agency. The independent

3. Ibid, p. 2.

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review of the Auditor is impaired if he has been involved in the process of prior approval of a transaction. Furthermore, "the responsibility and accountability of a Government is impaired if a clear-cut distinction in these roles and functions is not maintained. And often there is duplication of effort, and excessive delay in the settling of government accounts and payments when these functions are intermingled".⁴

Consequently, the functions of the "Inspecteurs des finances" should stay in the appropriate department of the Ministry of Finance and Economic Affairs. As for the existing "Inspecteurs des Affaires Administratives", (Inspectors of Administrative Affairs) they may be trained for the office of the Auditor General.

The Office of the Auditor General should be part of the Executive branch of the Government and not part of the office of the President. It should be an independent and impartial agency. The preservation of the neutrality, i.e. removed from politics - and impartiality, integrity and efficiency of the Auditor General and of his office are of special importance. For "he is charged with the responsibility of making independent audit examination of the accounts maintained by the Executive."⁵

4. United Nations, A Handbook of Public Administration, New York, 1961, p. 85.

5. Functions of the Auditor General, op. cit., p. 1.

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Various devices can be used to give the audit office this independent and quasi-judicial status.

Firstly, the Auditor General may report directly to the legislative assembly or to a special committee of the parliament as is the case in Canada and the United States. Secondly, he may be appointed by the President with a long fixed term of office, say six years, and his removal may be made subject to legislative approval.

He shall have access to files and information and audit both the revenue and expenditures of the government, including public agencies and corporations. The results of his examinations shall be an annual report to the legislative Assembly which shall also be made public.

To overcome possible obstacles and resistance to the administrative reforms, an effective leadership with the advice and assistance of a technically competent staff is needed. Such leadership must operate simultaneously at two levels: political and administrative. At the political level, the active support of the President is necessary to provide the stimulus for strengthening the public service. The question of initiative by the head of the Government and his office is well summarized in the following quotation from a report on public administration in Latin America:

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"Several of the leaders interviewed emphasized that good administration is good politics and that the president's office should be not only a centre for administrative leadership but also a point of political leadership on behalf of better public administration. It is said that a President can help greatly to create an environment in which administration can improve its efficiency. Specially, the President has it within his power to minimize political interference with good administration and to develop citizens' understanding and support for good administration. In one country, for example, the President (senses) the need for reorganization of income tax collection to produce more revenues for essential public works. He first (creates) understanding and acceptance of the proposed reforms among political leaders and businessmen, thus successfully (reorganizes), (mechanizes), and (raises) ⁶ personnel standards in that operation."

Within this wider role played by the President, the ministers should take an enlightened interest and give vigorous support to the over-all improvement of the administration of the nation. They should keep their departments interested in administrative reform. The political parties shall assist by expanding the programmes of administrative reforms and explaining them to their members.

6. "Public Administration in Latin America" - opportunities for progress through technical co-operation - a report to the Inter-America Economic and Social Council in accordance with resolution 45/35, mimeograph, Washington, D.C., 1961, p. 21.

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Another indispensable link in this process is the senior level of the career service. The permanent officials can do much to maintain interest among political leaders in the administrative reform movement. They should stimulate the formulation and implementation of reform measures within the public service itself, and train their subordinates in the value and proper utilization of new methods. Leadership in administrative reforms is thus demanded of both the political leaders and the chief officials of the career service. But if reform is actually to take place, the will for improvement needs to be encouraged among officials at every level.

Part 2. Improving the Planning Structure.

As discussed in chapter 6, the plan looks like a vehicle for the statement of a political position and not an operational instrument. The plan has been drawn up by a group of technicians working apart from the normal governmental processes. To avoid this, it is essential to draw the various decision-making groups into the process of formulation so that through consultation and agreement at various decision-making levels, a programme of action for implementation of the plan might be evolved. In this sense, it can be said that the effective implementation of the plan begins at the stage of formulation.

The planning process must therefore embrace not only the various ministries of government but also the different political and social groups in the nation. Looking at it from this point of view it may be said that a plan is an exercise in political compromise.

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Therefore it is suggested that the "Haut Commissariat du Plan" (Central Planning Agency) be composed of a reasonable number - not more than ten - full time members consisting of professionals in economics, finances, energy, water, transport, industry, construction, housing, fisheries and artisans, plus one representative from each ministry. The Commissariat may be divided into four horizontal divisions: Economics, Finances, Foreign Trade, and Regional; and a number of vertical commissions: Agriculture, Agricultural and Food Industries, Public Works, Transport, Tourism, Social Equipment, School, University, Oil, Research, and Productivity, etc.

In addition to the Commissariat and the commission, which will set out the targets and means of their achievement, the plan should be submitted to the Economic and Social Council provided for in article 98 of the new constitution. Submission to the National Assembly may take place before the plan has been determined to permit of greater democratization in the planning process.

At the preliminary stage, the task of the Central planning agency should be to provide the executive with a general analysis of trends and possibilities that will enable the latter to make decisions on major policy issues. In the preparation of this analysis, the ministries can provide expert knowledge about problems or possibilities in their own areas of activity. But they should leave the Central agency free to perform its function of assessing the interrelationships

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of the different sectors and administrations. To perform this role properly the central planning agency must be located in the office of the President.

Once the plan outline has been completed and approved, the plan enters its second stage when programmes and projects for the various sectors and activities have to be worked out. It is at this point that plan preparation rests heavily on the work of the ministries and agencies.

In connection with the preparation of the final draft of the plan sectoral and functional working parties which include senior government officials from the various ministries should be established to assist the "Haut Commissariat" in its work.

Therefore it is necessary to put emphasis upon a reliable central planning agency and the creating of planning units within the various ministries and agencies. These units should be charged with the preparation of programmes and projects on a continuing basis. However, in the short run what would hamper the establishment of effective units, would be the lack of personnel with the skill and training to prepare and appraise potential projects. Foreign technical assistance would be helpful in easing this problem. But in the long run the primary need would be for the extensive training of national personnel.

The role of the President in the effective implementation of the plan is important. A group of the United Nations experts explain that "in a formal sense, all the policy decisions undertaken within the

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government in the course of plan formulation or implementation require the approval of the executive head, either directly or indirectly through his ministers. In more operational terms, however, the participation of the highest political authorities in planning is generally confined to major policy issues.⁷"

Consequently, at the early stage of planning, a broad framework of possible targets and policies elaborated by the "Haut Commissariat" should be submitted to the President and his council. The technical work at this stage should not require complex techniques. It would be at a fairly aggregative level, resting on analysis of general trends and projects. The primary purpose of such work would be to pose the main alternatives and policy issues in a form that would be clearly intelligible to the President. This would elicit discussion and initial decisions on such issues as the size of the public development programme taking into account its implications for fiscal policy and the degree of dependence on foreign aid; the relative emphasis on agriculture, industry, infrastructure or the social sectors; the regional distribution of public expenditure; employment policy, or policies for institutional or administrative reform.

Through consideration of such issues by The President at the preliminary stage of plan preparation, some balance would be determined

7. United Nations, World Economic Survey, 1966, Department of Economic and Social Affairs, New York, 1967, p. 13.

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in the priorities to be attached within the plan to conflicting political and social objectives.

But since all plans require some legislative action to empower the Executive to carry out its policies, they must in some way be reconciled with the political situation in the legislature. Therefore, the role of the National Assembly in the preparation and the implementation of the plan should be considered.

For instance, medium term plans could be submitted to the parliament to be voted into law. This would ensure, in a general way, that subsequent actions of the National Assembly conform to the objectives of the plan. This is usually done in France, India, and Turkey where plans are submitted to Parliament for discussion and approval as an instrument for guiding the Government's economic and social development policy. Ultimately, the reason for considering the role of parliament is that it ensures political realism and the commitment of the National Assembly, which in turn would determine how effectively the plan is to be implemented.

The growing concentration of enterprise and population in the South and urban areas while activity in the North and rural areas has stagnated or declined should lead the government to give more attention to regional development planning in the years to come.

Under normal conditions, one would require the various regional authorities to establish planning organs to deal with the specific problems of their localities. But Dahomey, like most developing

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countries, does not possess adequate economic data for territorial subdivision to undertake such analysis. Moreover, the scarcity of trained personnel is more severe in the case of regional planning units than in central administration because of the reluctance of the people with the needed qualifications to accept appointments outside the major urban centres.

The "Haut Commissariat" should therefore intervene extensively in the preparation of regional programmes by centralizing much of the regional planning work at headquarters and by placing a representative in each of the "Sous-préfecture". These representatives would be acting as liaison officers between the central planning agency and the regions.

However, the assumption of regional planning responsibilities by the "Haut Commissariat" does not provide a satisfactory solution to the problem in the long run. It should be considered temporary expedient while the planning units at the regional level are being built up. Therefore, in the short run, the "Haut Commissariat" 's role should be that of initiator and coordinator of regional planning efforts.

The importance of research as a determinant of the quality and effectiveness of development programmes should also receive more attention.

The lack of research is most evident in such areas as transportation and other private and public industries, where no attempts at research have been made. Yet, the effectiveness of the projects proposed for implementation "can be no better than the technical, economic and social research which is undertaken to reveal new opportunities

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and to define the steps needed to overcome existing problems. It is through ... research that the specific objectives to be pursued in individual sectors can be clarified and that, moreover, the need for programmes of interdependent projects and measures can be more readily appreciated."⁸

Implementing the plan is to be emphasized. A plan which is not carried out is nothing but a proposal of intentions. Execution in this sense "refers not only to carrying out government projects but also to administering measures designed to stimulate private enterprise, make resources available to it, influence its course, and curb it where needed."⁹

Assuming an efficient development structure, progress reporting with a minimum time lag is essential for planning "since either a lag or an acceleration in the completion date of any development project will affect other projects, current expenditures to operate the projects' administrative problems, and revenue and expenditure expectation."¹⁰

Therefore it is suggested that reporting on projects being executed by any agency be supervised by that agency since direct supervision by the "Haut Commissariat" would interfere with the work of the operating agencies and create undesirable frictions. However, "brisk" and imaginative central supervision of progress reporting can help to

8. Ibid.

9. Planning Economic Development, op. cit. p.346.

10. Ibid.

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create the tube necessary for an effective implementation of the entire development program. The machinery devised in Malaya for checking on progress provides an example of imaginative and effective administration:

"There is an operations control room in Kuala Lumpur, one in each of the eleven states, and one in each of the ninety districts. In the room in Kuala Lumpur wall-size maps on rollers show the location of every project of every type in the country: schools, health centers, roads, water works, power plants, land development projects, etc. There is a big red book for each district containing a map with transparent overlays showing the location of each of the projects of each type within the district. There are other means of visual presentation such as slide and movie projectors, transparencies, hinged wall charts, etc.

To keep track of progress on projects, there is a small red book for each district, with pages showing each type of project in each village. Here there are squares in which the programmed progress for each item for each month is shown in the upper left diagonal and the actual accomplishment for the month is recorded in the lower right diagonal - in black if it is up to the plan, in red if it falls short.

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The Deputy Prime Minister heads the Ministry of Rural Development. He keeps his finger on this nerve center. Whenever he sees red ink on any item in the red books, he calls up the responsible officer and demands an explanation. He visits each district at least once, some of them several times a year. Here he reviews the progress on the entire program. Wherever there are shortcomings, the causes are discussed and responsibility assigned. All these conversations are taken down on a tape recorder. If an official continues to be delinquent, his earlier promises can be played back to him in his voice." ¹¹

Thus program implementation in Malaya is discussed in terms of "operations room" and "red book". There is no precedent or parallel for this undertaking in the developing world. This experience provides a model that Dahomey could well learn from. In this respect "The Haut Commissariat" would cooperate with every ministry and public agency to contemplate the practical steps to adopt in designing an appropriate machinery to report on progress.

Part 3. Improving the Budgetary Classification and Structure.

As discussed in chapter 6, the existing budgetary system showing salaries, travel, cost of materials, is presented as the basis of requirements to facilitate the verification of expenditures in accordance with votes approved by Parliament. This type of classification of expenditure involves a number of shortcomings of which the three more important are:

11. Ibid., pp. 346-347.

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1. "It is difficult to analyze the impact of governmental transaction on the total economy.
2. It is difficult to see for what broad purposes resources are being allocated, and
3. It is unsatisfactory as a basis for judging¹ progress toward desired public sector goals."

In consequence, the existing accounts may not provide the kind of details needed to analyze government transactions in the light of other considerations than budgetary control. Therefore, the accounts cannot be used for other purposes without further work being done to classify and summarize the information in ways useful to meaningful economic analysis and appropriate policy formulation. For example, sound decisions on matters such as stimulating or reducing demand, adjusting the price level by subsidies or taxes, redistributing incomes more evenly, providing for the creation of funds for investment and development, require more information than is provided in the traditional form of the budget.

New methods would therefore have to be developed for collecting and analysing information about government transactions, with the aim of revealing their full economic significance and providing the data needed to frame desirable economic and social policies. These methods have been studied by the United Nations which published its

1. Abraham, W.I., Annual Budgeting and Development Planning, Brooking Institute, Washington, D.C., 1965, p. 7.

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findings in A Manuel for Economic and Functional Classification of Government Transactions.² Two possible proposals for classifications are presented in the manual:

"The first is a classification of government expenditure and receipts by economic categories that are significant for analysing the short-run effects of government transactions on the working of the rest of the economy. It is called the economic classification scheme. The second is a classification of government transaction by purpose ... called a functional classification.

The two schemes are combined to form an economic functional classification. This classification shows how expenditure for a particular purpose - say, education - is divided between economic categories such as current expenditure on goods and services, capital formation and various types of transfers and loans. It also shows how expenditure in a particular economic category - say, capital formation is divided according to different purposes or types of public service provided."³

Such classifications have become useful supplements to the information usually included in the budget. A number of countries have constructed tables incorporating information of this kind. A United Nations document entitled "Reclassification of government expenditures

2. United Nations, "A Manuel for Economic and Functional Classification of Government Transactions", Sales No. 58, XVI.2, New York, 1963.

3. Ibid., p. 3.

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and receipts in selected countries" attempts to make available the experience of a number of countries in this kind of work.

On the basis of these experiences and following the instructions contained in A Manual of Economic and Functional Classification of Government Transactions, table 23 is proposed for Dahomey.

The table is an economic or functional classification of government expenditures. It shows how expenditure for a particular purpose say - industry - is divided between economic categories such as (1) gross capital formation, (2) purchases of goods and services, (3) interests, (4) grants, (5) contributions, (6) pensions, (7) scholarships, (8) debt redemption, (9) loans and advances, etc. It also shows how expenditures in a particular economic category, say wages and salaries, is divided according to functional purposes: (1) education, (2) culture and youth, (3) health, (4) social welfare, (6) housing, (7) rural development, (8) industrial development, (9) commercial development, (10) infrastructure, (11) tourism, (12) state enterprises, (13) national development bank, (14) economic research, (15) national assembly, (16) Presidency Auditor General, (17) Supreme Court, (18) Justice, (19) Defence, (20) External Affairs, (21) General Administration.

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4. United Nations, Reclassification of government expenditure and receipts in Selected Countries, New York, 1958.

Table 23
PROPOSED RE-STRUCTURE OF BUDGET EXPENDITURES
BY FUNCTIONAL AND ECONOMIC CATEGORIES
DAHOMEY, 1966

Economic Categories	Functional Categories	EXPENDITURES COVERED BY LONG-TERM PLANNING														SUB TOTAL	EXPENDITURES COVERED BY ONE-YEAR PROGRAM									SUB TOTAL	GRAND TOTAL	Percentage
		ECONOMIC SERVICES								SOCIAL SERVICES			MANPOWER, CULTURE, AND YOUTH				PUBLIC BODIES			LAW AND JUSTICE		GENERAL SERVICES						
		Rural Development	Industrial Development	Commercial Development	Directly Productive Infrastructure	Tourism	State Enterprises	National Development Bank	Economic Research	Health	Housing	Social Welfare	Education	Culture	Youth		National Assembly	Presidency	Auditor General	Supreme Court	Justice	External Affairs	Defence	General Administration				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16	17	18	19	20	21	22	23			
A—Purchase of Goods and Services																												
Gross Capital Formation		13940	18150	5000	2350	0	0	0	1280	20020	0	0	3001400	0	0	3062140	0	0	0	0	0	0	20800	3350	24150	3086290	31.4	
1 Machinery and Equipment		0	6600	9700	0	0	0	0	0	0	0	0	0	0	0	16300	0	0	0	0	0	0	0	0	0	16300	0.16	
2 New Buildings		0	10062	0	0	0	0	0	0	0	0	0	0	0	0	10062	0	0	0	0	150	150	68000	46800	114050	1250123	1.27	
3 Net Purchase of Land & Building		11100	21400	6000	131500	0	0	0	0	0	55000	0	45480	1800	80650	487340	0	0	0	0	0	0	27000	46500	73500	560840	5.71	
4 Increase in stocks		0	0	0	0	0	0	0	510	133900	1774	4667	3049	35565	3042	228851	8000	32604	4370	15057	0	0	0	12550	159678	388529	3.96	
Purchase of Goods and Services																												
5 Wages and Salaries		140523	4089	4110	2842	18890	2842	2842	2842	1774	1814	0	1043353	168865	21210	2392085	0	0	0	0	93748	20863	0122746	0	132545	724630	37.97	
6 At home		212846	155248	144709	99617	8564	1814	2842	8376	677649	0	0	0	0	0	125	0	0	0	0	0	93748	21135	14070	1148837	115008	1.17	
7 Abroad		0	0	0	0	105	0	0	0	0	0	0	0	0	0	588	0	0	0	0	0	0	0	0	0	0	0	
8 Travelling		0	0	0	0	588	0	0	0	0	0	0	0	0	0	600	0	0	0	0	101880	0	0	11800	11000	0	0.3	
9 At home		0	0	0	0	180	0	0	0	0	0	0	0	0	500	600	280	0	0	2350	13008	0	21700	11890	0	588	0.3	
10 Abroad		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	900	166090	36370	36970	0.3		
11 Other Purchase of Goods & Services		33853	36780	20377	121191	1362	422	25	13128	138168	397	10600	34418	31383	6596	353939	2000	23981	500	0	0	0	19585	0	113780	114280	4.16	
B—Transfer Payments																												
12 Interest		58110	0	0	0	0	0	0	0	40000	0	0	0	0	0	98110	0	0	0	0	0	0	0	0	348136	702075	7.15	
13 At home		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14 Abroad		58110	0	0	0	0	0	0	0	80000	0	0	0	0	0	66710	0	0	0	0	0	0	0	0	0	0	0	
15 Grants Contributions		0	0	0	0	0	0	0	0	0	0	68000	60000	3400	0	315510	0	0	0	0	0	0	0	0	0	0	0	
16 To other government Units		0	0	0	0	0	0	0	0	0	0	0	0	0	0	4000	0	0	0	0	0	0	0	0	0	0	0	
17 To private		0	0	0	0	0	0	0	0	0	0	68000	60000	3400	0	275510	0	0	0	0	0	0	0	80990	80990	396500	4.0	
18 To International Agencies		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40000	0.4	
19 Pensions		0	0	0	0	0	0	0	500	41638	0	500	0	0	0	0	0	0	0	0	0	0	0	600	600	276110	2.8	
20 At home		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80390	80390	7500	0.76		
21 Abroad		0	0	0	0	0	0	0	0	0	0	500	0	0	0	500	0	0	0	0	0	0	0	0	0	80390	0.71	
22 Scholarships, Stipends		0	0	0	0	0	0	0	0	0	0	0	132406	0	19650	176494	0	0	0	0	0	0	0	7000	7000	76500	0.05	
23 At home		0	0	0	0	0	0	0	0	0	0	0	6700	0	0	1200	0	0	0	0	0	0	0	7000	7000	7000	1.8	
24 Abroad		0	0	0	0	0	0	0	41638	0	0	0	65406	0	1200	109838	0	0	0	0	0	0	9245	0	0	252835	0.91	
C—Financial Transactions																												
25 Debt Redemption		0	0	0	0	0	0	0	0	0	0	0	0	0	0	66656	0	0	0	0	0	0	0	600	9845	116209	2.51	
26 At home		0	0	0	0	0	0	0	0	0	0	0	0	0	0	66656	0	0	0	0	0	0	9245	800	0	136209	1.81	
27 Abroad		0	0	0	0	0	0	0	0	0	0	0	0	0	0	152000	0	0	0	0	0	0	0	0	0	0	0	
28																												
28 Net I.M.F. Positions		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100835	100835	94500	0.96		
29 Loans and Advances		0	12500	0	82000	0	0	0	0	0	0	0	0	0	0	94500	0	0	0	0	0	0	0	0	100835	822000	0.83	
30 To Boards and Corporations		0	0	0	82000	0	0	0	0	0	0	0	0	0	0	82000	0	0	0	0	0	0	0	0	0	12500	0.12	
31 To private		0	12500	0	0	0	0	0	0	0	0	0	0	0	0	12500	0	0	0	0	0	0	0	0	0	0	0	
32 GENERAL TOTAL (A + B + C)		470372	264809	189806	130500	41888	5070	2867	26638	1139149	58985	83767	4320106	91033	114448	7291534	10200	63591	5210	17407	119913	229751	1180639	885851	2516662	9808196	100	
33 % OF TOTAL		4.7	2.6	1.9	3.3	0.4	0.05	0.29	0.27	11.6	0.6	0.85	44.05	0.9	1.16	74.34	0.10	0.64	0.05	0.17	1.2	2.3	12.0	9.0	25.6	100		

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The table is designed to provide statistical information on other sectors of the economy. It is also intended to show the impact of government spending on the country's international economic relations. Hence the description "at home" "abroad" under the headings: wages and salaries, traveling, interests, pensions, scholarships, debt redemption. Provision is also made for knowledge about the country's international financial position. Hence "Contributions to International Agencies and "Net Position at the International Monetary Funds".

The distinction between "Expenditures covered by one year programme" and "Expenditure covered by Long Term Planning is made for the purpose of regrouping the categories of the functional classification into developmental and non-developmental expenditures.

Developmental expenditure includes expenditures on "Manpower and Culture" on "Social Services" and on "Economic Services". Non-developmental outlays include expenditures on "Public Bodies", expenditure for the maintenance of "Law and Justice", for "Defence" "External Affairs" and "General Administration".

The policy uses of the classification are:

1. The economic classification scheme is to provide the data required for examining the economic effects of government activity. As such the table could be useful for the formulation of fiscal policy and monetary policy. It also could provide for an overall view of budget

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management: by recording government transactions as part of a consistent record of all economic transactions it enables one to see the action of government in relation to the action of other economic bodies and to the working of the economy as a whole. In other words, the economic classification provides for knowledge about the short-run economic effects of the budget. This would make it possible to avoid conflict with the general objective of preserving economic stability.

2. With respect to the functional classification, the main considerations are "the purposes achieved by government expenditure, the incidence of the benefits and burdens resulting from government spending, the desirability of spending more or less on a particular service and the efficiency with money is being spent to achieve a given purpose.⁵ Consideration of closer analysis of these problems has called for a classification by services provided: "Manpower", "Social Services", "Economic Services".

3. The effect of government expenditures on the balance of payments can also be traced from the table. This is provided for by distinguishing expenditures within the country and expenditures designed to obtain goods and services from abroad and by revealing informations on "Financial Transactions".

5. A Manuel for Functional and Economic Classifications, op. cit., p. 32.

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Therefore, in the short run, the proposal may be useful for policy purposes. As such it is put forward as a supplement to, and not a replacement for, the usual classification. It is also intended to prepare Dahomey to move on to a more sophisticated system of classification. The possible areas of research needed to achieve this goal are outlined in Appendix C.

Part 4. Linking the Five Year Programme and the Annual Budget and Laying the Basis for Classifications in Programme and Performance Budgeting.

The Five-Year Plan attempts to indicate specifically both the economic progress to be attained during the period and the measures required to resolve the economic and social objectives set by Dahomey. But no effort is made by the government in its annual budget and associated annual legislative and administrative measures to tie in its short term policies with the long term measures required to reach stipulated goals over the next five years. What is required is to revise the plan, year by year, in particular, to take account of such factors as crop failure, inability to obtain anticipated amounts of foreign government aid or foreign private investment, labour shortages, variations in training program achievements, delays in the completion of interrelated projects, that is projects on which other projects depend, a lag or spurt in domestic private investment, deviations in government revenues from those expected and other unanticipated events affecting development programs.

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Systematic annual planning reconstructing the Five-Year Programme, year after year, would put the planning process on a more realistic basis. Professor Everett E. Hagen of the Massachusetts Institute of Technology suggests that the annual plan incorporate two factors which are much less important in the Five-Year programme. These are:

First, to report and evaluate "the progress of all components of the government development program and of private economic activity in order to know the purposes for which money should be appropriated and spent during the ensuing year.

Second, (to) achieve coordination and integration with the customary process of budgeting for the current expenditure of government".¹ The term "current" expenditure means all non-developmental outlays.

Following these two principles, development planning could be viewed as an extension of current budget planning. To achieve this, it is desirable to merge the planning and budgeting functions.

A permanent working committee composed of senior officials of the Ministry of Finance and "The Haut Commissariat au Plan" could be set up to establish the necessary coordination between Economic Planning and Government Budgeting in Dahomey. Annual planning could then take the following steps:

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1. Planning Economic Development, op. cit., p. 343.

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First, "The Haut Commissariat" would review and evaluate the state of progress of government programs and projects. The reporting mechanism required for this purpose would be the operating agencies. Where required, working groups composed of the Central Planning Agency and the operating agencies concerned may be appropriate.

Second, the Working Committee, described above, would evaluate the prospective economic and fiscal situation. A provisional estimate would be made of the level of aggregate government expenditure which would achieve full employment of the nation's resources. This estimate would be "based on a forecast of the level and trend of prospective private economic activity and (would) take account also of existing or proposed taxes, monetary, foreign exchange, and other policies of government".²

Third, the proposals arrived at by the Working Committee would be submitted to the President for comments.

Fourth, "The Haut Commissariat" and the operating units would establish tentative targets for development programs to be executed by each agency during the coming year. Simultaneously, the budget office would transmit tentative targets for current expenditures. The Working Committee would then discuss these targets with each agency, taking into account the progress needed to advance the Five-Year Plan, the current state of the functional agency's program, its inter-relationships with

2. Ibid., p. 344.

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other government programs and with private economic activity, and the over-all economic situation.

Fifth, out of these discussions would emerge proposals by each agency for changes in the tentative targets presented to it.

Sixth, from these, the permanent Working Committee would establish final determination of allocations for development expenditures for the coming year.

Seventh, this final determination would be submitted to the Cabinet and to the Economic and Social Council. After approval by the Council of Ministers the annual plan would go to Parliament.

The coordination of the work of "The Haut Commissariat" and the other ministries in the preparation of the annual development budget is a major step toward effective planning. But if the Five-Year Plan and the Annual Budget are to be dovetailed so as to realize on a continuing basis the economic, social and political goals established, Dahomey must be prepared to embark on programme and performance budgeting.

In programme budgeting, indeed, the principal emphasis is on a budget classification in which functions, programmes, and their sub-divisions are established for each agency, and these are related to accurate and meaningful financial data. A performance budget is "one which presents the purposes and objectives for which funds are requested.

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the costs of the programme proposed for achieving these objectives and quantitative data measuring the accomplishments and work performed under each programme".³ In other words, "performance budgeting involves the development of more refined management tools, such as unit costs, work measurement and performance standards".⁴

According to these new concepts of performance and programme budgeting the annual budget "is in essence a work plan specifying the concrete objectives to be achieved by the Government during the financial year. It is formulated on the basis of the work to be done or services to be provided by the Government, and presents these, together with their costs".⁵ The reporting and accounting system are designed to provide, at stated periods during the execution of the programme, information on the work accomplished and related expenditures. These are analysed in relation to one another and composed with the planned work and planned expenditure for the corresponding period in the approved budget.

A classification of the budget by functions, programmes and activities or projects is inherent in and of fundamental significance to performance budgeting. A function may be defined as a broad division of

3. Burkhead, Jesse, Government Budgeting, John Wiley and Sons, Inc., New York, 1956, p. 142.
4. United Nations, A Manual for Programme and Performance Budgeting, New York, 1965, p. 3.
5. Ibid.

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the organized effort of the Government, such as national defence, education, public health or agriculture. A programme may be defined as a significant sub-division or segment of the effort comprising a function. A major function, such as education, for example may be divided into programmes including elementary, secondary and technical education.

Programmes can in turn be classified as activities or projects. Activities are concerned with the current operating outlays of a particular programme, whereas projects are concerned with expenditure for capital purposes such as machinery and equipment, land, buildings and construction.

"Between a plan and a programme and performance budget, there are certain structural similarities of form and common elements in the accounting for resource use. The basic features of a plan are its use, within a sector, of programmes or projects, as operational units, the emphasis on their physical inputs and results or benefits and in their cost in relation to benefits. These are also the attributes of a programme and performance budget, in which objectives are first formulated at the functional level and then broken down for operational purposes, into terms of specific programmes, projects or activities. Similarly, just as outlays in a plan represent the cost of providing goods and services and not merely expected disbursements or obligations

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to be incurred, a programme and performance budget can also lend significance, with proper accounting support, to work load data by developing their cost. Thus, in both cases, the intent and direction of resource use, the expected work load and its cost are related closely to each other. These similarities in form and operational orientation make programme and performance budgeting particularly suited for plan implementation and evaluation of plan progress in developing countries".⁶

However, the immediate application of programme and performance budgeting in Dahomey would raise questions concerning the kinds of classifications needed for the various operations, the best methods for relating one operation to another, the accounting basis and the kinds of financial data to be developed, and the most appropriate financing, reporting, and control practices. In consequence, a gradual introduction is required if the system is to bear fruit.

As a first step, it is desirable to "emphasize the programme formulation aspect of this approach to budgeting, and to establish a clearly defined pattern of organizational responsibilities".⁷ This could be done by refining the classification suggested in the proposed budget re-structuré. A sample of this new classification is presented in table 24 "Chart of Functional Classification of Government Activities arranged by Department and Agency, Program and Project and Function.

6. Ibid., pp. 2-3.

7. Ibid.

CHART OF FUNCTIONAL CLASSIFICATION OF GOVERNMENT ACTIVITIES
1. ARRANGED BY DEPARTMENT AND AGENCY, PROGRAM AND PROJECT, AND FUNCTION

Department and Agency	Program and Project	Function												
		Legislative Services	Administration of Justice	General Government	National Defence	Maintenance of Peace and Order	Debt Service	Pensions and Gratuities	Agriculture and Natural Resources	Commerce and Industry	Transportation and Communication	Other Economic Development	Education	Public Health and Medical Care
8. DEPARTMENT of PUBLIC WORKS and COMMUNICATIONS (1) Office of the Secretary	1. General Administration and Staff Services 1. Technical Staff Services 2. Subvention to Steamship Companies 3. General Administration			X										
	I. Control and Supervision over Irrigation Pump Systems 1. Installation of Supervision of Pump Units 2. General Administration							X						
2 Radio Control Division	I. Enforcement of Radio Laws and Regs. 1. Licensing of Radio Stations and Radio Operators 2. Inspection and Investigation of Radio Station 3. Monitoring Service 4. General Administration									X				
3. National Planning Commission	I. Regional and Local Master Planning for Physical Development 1. Planning and Regulating Activities I. Field Surveys and Plan Preparation 1. Irrigation 2. Buildings 3. River Control and Drainage 4. Port Facilities													
	II. Operation, Maintenance and Repair Services 1. Irrigation 2. Buildings 3. River Control and Drainage 4. Port Facilities 5. Equipment	X	X	X					X	X	X	X	X	X
(2) Bureau of Public Works														

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This classification would make it possible to relate projects included in the development plan to each other. Such classifications of aims and responsibilities would contribute significantly to the over-all process of decision-making. Further, the data obtained from budget execution, both of a physical and financial nature could be helpful in the subsequent revision of a plan or formulation of new plans.

The next logical step would be to bring the system of accounting and financial management into line with budget classification. Improving accounting systems might take considerable time and may require extended training programmes to provide for the required new skills in accounting. A cautious approach could initially be adopted. In the beginning, accounts should be kept as simple as possible. Certain refinements such as accrual accounting and the allocation of overheads or depreciation should be deferred to a later stage unless such information is urgently needed for clearer decision-making and better management.

A third and final step consists of the "introduction of a system of measuring physical progress and performance. This would depend largely on the availability of relevant statistical data and, in many cases, such data may have to be developed. Each programme would present its own problems in terms of determining proper units of measure and

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meaningful indicators of performance. A start could be made by initiating work studies in certain selected agencies or for selected programmes to identify appropriate units for measuring work performed. Gradually the scope would be extended to cover other agencies and other activities".⁸

8. Ibid.

CHAPTER VIIIBENEFITS OF IMPROVED PLANNING AND BUDGETING ACCRUING TO DAHOMEY

While chapter 7 analyses what is involved in Planning and Budgeting in Dahomey, chapter 8 examines how and where an improvement can be brought about in these two processes. It may be useful to list their benefits. These benefits fall into two general groups: active and concomitant. The active benefits occur when the plan is carried out. The concomitant benefits occur whether the plan is carried out or not largely as a result of the process of drawing it up.

ACTIVE BENEFITS

1. Coordination of Economic Policies. At present, local and regional governments have much less of a say in policy and largely carry out administrative decisions of the central government. Re-structuring the Central Planning Agency and the regional and local planning units along the line suggested in the preceding chapter would bring together into one place the knowledge and integration of what the governments at all levels are doing. One of the major benefits of improved planning would then be the coordination of at least the role of the public sector in the economy. Moreover businessmen, labourers, farmers and other social groups would benefit from the increased knowledge which comes from having participated in the decision-making process between both

BENEFITS OF IMPROVED PLANNING AND BUDGETING ACCRUING TO DAHOMEY sectors. Therefore, coordinating economic policies in the public and private sectors would help bring the planning process close to something less than mandatory but more than indicative.

2. Setting Economic Targets. Sales managers in Canada and the United States would hardly deny the benefits of sales targets as a management tool. Similarly, plan targets can be a precious tool of economic policies as they provide a basis for formulating appropriate government policies. The Head of the French planning agency, Pierre Massé's own experience in the field speaks powerfully of the value of the device and the confidence which planning targets inspire:

"If I may be allowed a personal reminiscence, I still recall the shock that was experienced at Electricité de France, where I had just been appointed Equipment Director, at the announcement of a target of 39.5 billion Kwh., when consumption in the best pre-war year had not exceeded 21 billion Kwh. In other times this ambitious scheme would have been met with general scepticism. But we wanted to build a model France and reason was combined in us with the faith that makes mountains that taps their resources, I should say. Our act of faith was, moreover, justified by success, for electricity consumption in France today is approximately twice the original target figure".¹

1. Massé, Pierre "French Economic Planning" in French Affairs, Paris, December 1961, p. 7.

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3. Better Allocation of Scarce Resources. As explained in chapter 6, Dahomey is under the threat of balance of payment crises, shortages of foreign exchange, lack of transport, and inadequate power facilities. The situation is similar to that which prevailed in Europe after World War II where economic planning received its start at a time when the national resources in Germany, France, The Netherlands, and the Scandinavian Countries were drained and stringent measures were taken through the Marshall Plan to bring order to the various sectors.

By helping to establish priorities, by attempting to reach these objectives in a pre-determined period of time through scientific management and rationalization of economic development, planning would assist the nation's leaders to "direct resources with determination and foresight into the sectors where the needs arise most. Planning would help channel the most scarce resources to where "the spearheads are to be trust"² and to the slope where the snowballs would grow into avalanches.

4. Dealing with the Inadequacies of Economic Development and Growth. Structurally transformed by monopolies and by institutionalized imperfections, the nation's market has ceased to be the mechanism of reciprocal adaptation of prices and quantities. As professor François Perroux would put it: "In numerous areas, prices and quantities (are)

2. Leading Issues in Development Economics, op. cit. p. 262.

BENEFITS OF IMPROVED PLANNING AND BUDGETING ACCRUING TO DAHOMEY

subject to rigging. This fact is true for agricultural products, for industrial products, for income and for capital. Instead of a generally interdependent network of all prices and all quantities, (the country is) confronted with a network formed of secondary markets in imperfect communication and competition with one another".³ Both the monetized and subsistence sectors of the economy are linked by unequal knowledge, by hardened imperfections and by power relationships which are socially and economically asymmetrical. Not the least important of such considerations is the difficulty that government authorities have in achieving monetary and fiscal policy objectives in an environment where average per capita income is \$200, where managerial talent and top level competent civil servants are scarce, where the Central Bank, the Commercial Banks, and the major industries are wholly foreign owned and behave according to directives from their parent companies located abroad.

Improved Planning and Budgeting would aid the nation's leaders in framing and executing programmes which would balance stated goals against each other and achieve the degree of each other that would yield the greatest satisfaction to the people of the country. In particular, planning would make clear the "cost in reduced attainment of one of these goals which may result from measures aimed at attainment of another

3. French Affairs, op. cit., p. 8.

BENEFITS OF IMPROVED PLANNING AND BUDGETING ACCRUING TO DAHOMEY
 so that to the maximum extent possible all the consequences of each
 measure will be taken into account in working decisions".⁴ Improved
 Planning and Budgeting would therefore deal with the inadequacies of
 the existing structure and pave the way toward balanced development and
 growth.

CONCOMITANT BENEFITS

5. Better Economic Knowledge. One of the future benefits
 derived from improved planning and budgeting would be the gathering by
 decision-makers of knowledge about the working of the economic system.
 As explained in chapter 5, economic planning assists in:

- (a) Evaluating the potential of the economy.
- (b) Establishing a strategy for development.
- (c) Providing directive to the public sector and
 incentive to the private sector.
- (d) Making explicit external economies and diseconomies
 of production.
- (e) Pinpointing the necessity of and providing for an
 efficient administrative structure.

Further it has been examined in chapter 7 that the policy uses
 of the proposed re-structure of budget expenditures would:

 4. Planning Economic Development, op. cit., p. 8.

BENEFITS OF IMPROVED PLANNING AND BUDGETING ACCRUING TO DAHOMEY

- (a) Provide the data required for examining the economic effects of government expenditures.
- (b) Make explicit the purposes achieved by government expenditures, the incidence of the benefits and burdens resulting from more or less in a particular service and the effect of these spendings on the economy as a whole.
- (c) Analyse the impacts of government outlays in the country's balance of payments.

Therefore, continuing effort to plan the nation's economy would be rewarded with better fiscal and monetary policy, greater awareness of the crucial variables in the economy, and a respect of the strengths of other socio-economic groups that would have to be taken into account.

6. Identifying the Problem Areas. As a result of cumulative knowledge about the working of the economy, there would be available quantitative data on rates of growth for regions or industries, unemployment, unused capacity, cost factors, population statistics, and production indexes. More would then be understood about why such a region or industry is either "sick" or "booming". Planning as an effort to pull together relevant facts would permit analysis and the dissemination of information for action. Planning therefore helps in focusing attention on these factors.

BENEFITS OF IMPROVED PLANNING AND BUDGETING ACCRUING TO DAHOMEY

7. Making Explicit Social or External Economic Costs.

External diseconomies are the net disadvantage provided by a company as a result of its operation. For example, the extra smoke created by greater steel production. Conversely, where the location of a power plant next to an oil refinery makes possible the use of cheaper grades of fuel or where the presence of a major industrial plant gives the surrounding economic region a market of sufficient size to warrant the entry of many other smaller businesses, there will be external economies.

Planners would be conscious of these effects. In assessing their impacts on the area or region, attempts would be made to identify their costs or benefits. What really takes place in such analysis is therefore the identification of the true social costs or external benefits of economic development, whether these are reflected in a company's own profit statement or only in the country's gains and losses.

8. Central and Reliable Source of Economic Data and Economic Forecast. Finally, re-structuring the Central Planning Agency would help in the collection of economic data. The "Haut Commissariat" should be in a position to distribute the analyses and supporting data. This action, through it is part of the act of coordination, would be useful to government, business, labour, farmers, social workers, and academicians.

CHAPTER IXSUMMARY AND CONCLUSION

This thesis approaches the subject "Economic Planning and Budgeting in Dahomey" in two ways. It examines the theoretical meaning of the planning process and it explains in terms of applicability economic planning as a means of dealing with the practical problems faced by Dahomey in a systematic and scientific manner.

I- Theoretical Aspects

Chapters 2 to 5 present some aspects of the theories of Economic Planning and their application to the planning efforts of the less developed nations.

The main features of the planning process have been explained based on an analysis of the concepts developed by professors Huda, Tandon, Frisch, Tinbergen, Robbins, Lewis, Hagen, Landauer, Mayne, and Waterston. These academicians are ten leading economists who come from both developed and less developed countries and who also represent a cross-section of professional judgements on the subject.

According to the analysis presented planning involves:

- 1.- Rational arrangement of economic resources.
- 2.- Clearly established objectives.
- 3.- Objectives to be achieved within a period of time.
- 4.- Means of influencing distribution of resources by the state.

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- 5.- Rationalization of economic development and scientific management.
- 6.- Basis for the formulation of appropriate economic policies.

These elements have been explained and their common and non common factors discussed.

The contributions of professors Mayne, Lewis and Tinbergen were then examined which paved the way for a discussion on the essence of the planning concept.

Economic Planning is both an art and a science and the two aspects are inseparable. In analysing the dual nature of the concept, this thesis attempts an inductive exposition which is intended to complement the deductive proposition presented by professors Mayne and Tinbergen.

The relationship of economic planning with the doctrines of Balanced and Unbalanced Growth has been touched upon briefly. The view has been advanced that both doctrines have explained the growth phenomenon in rather general terms by putting too much emphasis on inducement mechanisms. Consequently, a number of important questions have been left unanswered. The issues are: the objectives of growth and development; the determination of these objectives in relations to the initial conditioning factors of an economy; the choice of production techniques. It has been explained that economic planning as a means of securing these objectives making them explicit, and the

SUMMARY AND CONCLUSION

way in which they are to be achieved has the capacity of dealing with the shortcomings of balanced and unbalanced growth and assists in overcoming the visible and the invisible obstacles of the growth phenomenon. Economic Planning is a series of connected steps aiming at solving deep-rooted economic and social problems.

Its roles in less developed countries are:

- 1.- Evaluating the potentials of their economies.
- 2.- Establishing a strategy for development.
- 3.- Providing directives to public sectors and incentives to the private sectors.
- 4.- Making explicit external economies and diseconomies of production.
- 5.- Pinpointing the necessity of and providing for an efficient administrative structure.

Chapter 4 presents the following techniques of planning: Kenesian technique, Semi-Input-Output, Input-Output, Cost Benefit Analysis, Use of Model, Methods and Criteria Used for the Appraisal and Selection of Individual Projects and the results of an International Survey of Planning Techniques in matrix form.

The matrix shows that the main characteristic of planning in the more advanced economies is that it is related to clearly established economic, social and political goals. Further, there is a good deal of democratic participation in the manner in which a planning process evolves and the form in which it is implemented in

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concrete terms. Consultation and cooperation between government, business, labour, and other sectors in turn make effective planning more feasible.

II- Practical Aspects.

On the practical level this thesis has endeavoured to examine the problems faced in Dahomey in reconciling economic planning on a medium term basis and government budgeting in a short term basis. It has been explained that the root of the problem lies not so much in the availability of natural and human resources but in the inadequacy of the existing infrastructure. This includes lack of adequate administrative machinery for planning and executing economic development, the inadequacy of the colonial system of education to provide the young nation with trained men and women to meet the demand for skilled labour (a shortcoming that Dahomey despite its given name of "quartier latin de l'Afrique", has found particularly difficult to solve over the near medium term), absence of a favorable climate to encourage needed investment for development, misunderstanding of the role of the government in promoting economic development and growth, and political instability and the inability to obtain required foreign exchange and full public support for desirable long, medium, and short term economic and social objectives.

The preceding examination of some problems that impair the making and the implementation of the public programmes points to certain measures that could be taken to bridge the gap between the people's aspiration and the performance of the economy, between the

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need to be met and the inadequacy of the machinery designed to carry out the nation's economic and social objectives.

Four types of measures would be necessary.

First, the state must give up its present role of preserver of the status-quo and act more and more as the organizer and the accelerator of social change. It must behave more and more as the prime mover and stimulator of economic development and growth. It must take upon itself the responsibility for the direction and utilization of manpower, ~~natural~~ resources, and the fast-growing technology of the modern world for the creation of an environment conducive to widespread economic and social well-being.

Second, certain weaknesses in the planning procedures and practices must be remedied. Suggestions have been offered for reorganization and reorientation of the public service, restructuring the central planning agency, planning procedure and consultation, planning machinery in major regions, annual planning, adequate reporting on plan implementation, and economic research.

Third, it is essential to take a series of measures to modernize the budgetary system so as to make it an effective instrument of plan implementation. In this respect, a method of restructuring the items shown in the annual budget has been suggested so as to present a more meaningful classification of government expenditures. The policy uses of the functional and economic classification proposed are:

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a- To provide the data required for examining the economic effects of government expenditures.

b- To make explicit the purposes achieved by government expenditures, the incidence of the benefits and burdens resulting from government spending, the desirability of spending more or less on a particular service and the effect of these spendings on the economy as a whole.

c- To analyze the impact of government outlays on the country's balance of payments.

Fourth, it is imperative to ensure close and direct co-ordination between planning and budgetary activities through institutional arrangements and organizational measures. This could be achieved by meeting six specific requirements. They are:

a A government strongly committed to development and growth.

b A reliable machinery for development.

c A favourable climate conducive to development and growth, including but not limited to political stability.

d A revision in the accounting system.

e Structuring the plan in the budgetary system.

f An introduction of programme and performance budgeting; and work measurement system so as to evaluate performance and create cost consciousness.

A number of benefits would be accruing to Dahomey if this country were able to improve its planning and budgeting. First,

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there would result, if the plan were implemented, active benefits in the form of setting economic targets, better allocation of scarce resources and dealing with the inadequacies of economic development and growth.

Second, concomitant benefits would occur whether the plan is carried out or not, largely as a result of drawing it up. These are: greater economic knowledge, identifying the problem areas, making explicit social or external economic costs, and a central and reliable source of economic data and economic forecast.

Full awareness of the nature of the developmental process, a well intended sprinkling of work, dedication, sustained efforts, and political compromise are some of the elements of a breakthrough plan for Dahomey. Emphasis needs to be put on such a plan to break the vicious circle of poverty by a single concentrated effort to raise the standard of living of the people.

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APPENDIX AAN INTERNATIONAL SURVEY
OF
THE METHODOLOGY OF PLANNING MODELS

Questionnaire

1. Name and address of Director of project
 2. Full title of project
 3. Short name, if any, of project and/or model
 4. Is the model
 - a. Purely theoretical
 - b. Numerical and intended for applicationIf so,
 - (i) Has it yet been applied
 - (ii) To what country or region has it been or will it be applied
 - (iii) Does it contain or will it contain a regional subdivision.
 5. Is the model intended primarily for
 - a. Description
 - b. Forecasting
 - c. Decision-making (planning or programming)
 6. What is the planning or forecasting horizon of the model
 7. Has the model a social accounting framework
- If so,
- a. How many classes of accounts do you distinguish in it
 - b. What is the name of, and number of accounts in, each class
 - c. Do you make a distinction between industries and commodities
- If so,
- (i) Are there more commodities than industries

METHODOLOGY OF PLANNING MODELS

- (ii) What classification do you adopt for each category
 - d. Do you divide gross investment into
 - (i) Depreciation and net investment
 - (ii) Replacements and extensions
 - e. Do you divide imports into
 - (i) Complementary and competitive
 - (ii) Other categories (please specify)
 - f. Do you treat consumers' durables as capital goods
If so, please give categories
 - g. Do you cover a subsistence sector in addition to the monetized economy
 - h. Do you find the national accounts of your country or region adequate
8. If basic assumptions form part of the model, do these relate to
- a. The rate of growth of the gross national product or similar total (please specify)
 - b. The rate of growth of consumption
 - c. The rate of growth of the population
 - d. The rate of growth of the labor force
 - e. The rate of technical progress
 - f. The supply of domestic saving
 - g. The balance of payments (surplus or deficit)
 - h. Other variables (please specify)
9. Does the model include
- a. Demand functions for
 - (i) Private consumption
 - (ii) Government consumption
 - (iii) Exports
 - (iv) Imports

METHODOLOGY OF PLANNING MODELS

- b. Current input-output relationships for
 - (i) Domestic intermediate product
 - (ii) As above plus competitive imports
 - (iii) Complementary imports
 - c. Production functions of type
 - (i) Cobb-Douglas
 - (ii) As above with residual time trends for productivity growth
 - (iii) Vintage
 - (iv) Other (please specify)
 - d. Capital input-output relationships
 - e. Price-formation relationships
 - f. Financial relationships relating to
 - (i) Saving functions
 - (ii) Preferred portfolio patterns
 - (iii) Other (please specify)
 - g. Foreign trading relationships
 - h. Other relationships (please specify)
10. If estimates of parameters have been made, are they based on
- a. Tabulation of census data
 - b. Special sample surveys
 - c. Impressions of outside experts in industry, government, etc.
 - d. Econometric analysis
 - e. Other sources (please specify)
11. If estimates are based on econometric analysis
- a. Is the information derived from
 - (i) Time-series
 - (ii) Cross-section data
 - b. Is use made of
 - (i) Least squares methods
 - (ii) Simultaneous equations methods
 - (iii) Other methods (please specify)

METHODOLOGY OF PLANNING MODELS

- c. Is an attempt made to measure changes over time in
 - (i) Input-output coefficients
 - (ii) Preference coefficients
 - (iii) Other coefficients (please specify)
 - d. Are the results of the calculations modified subjectively before use
12. Are the calculations carried out by
- a. Electronic methods
 - If so,
 - (i) Is the program written in stages
 - (ii) How many stages does it contain
 - (iii) Does iteration play an important part
 - (iv) What type or make of equipment do you use
 - b. Other methods (please specify)
13. Is the model
- a. Mainly static, alternative solutions depending on initial assumptions
 - b. Mainly dynamic
14. If you are planning to increase the size of the model, do you intend to
- a. Simply increase the number of variables, without altering the form of the model
 - b. Develop submodels for different branches of production or sectors of the economy, such as transport, power, education, etc.
 - c. Combine both methods
15. If you are planning to extend the scope of the model, do you intend to explore
- a. The demand for labor skills now and in the foreseeable future
 - b. The role of education and training in satisfying this demand
 - c. The role of research and development

METHODOLOGY OF PLANNING MODELS

- d. Human adaptability
 - e. Other socio-economic phenomena (please specify)
16. How large is the staff you employ in terms of
- a. Economists
 - b. Statisticians
 - c. Mathematicians
 - d. Programers
 - e. Sociologists
 - f. Other professionals
 - g. Clerical and computing staff
17. Is the project sponsored and supported by
- a. A university
 - b. An independent research institute
 - c. Government or some other public body
 - d. Some other institution (please specify)
18. Do you publish your results in
- a. A special series (please give bibliographical details)
 - b. Other publications (please give bibliographical details)

Source: Millikan, Max F. (Editor) National Economic Planning,
Columbia University Press, New York, 1967, pp. 24-27.

APPENDIX BA LIST OF CORRESPONDENTS

<u>Area of Application</u>	<u>Director of Project</u>	<u>Title of Project</u>
1. Argentina	Dr. Oscar Varsavsky, Instituto de Calculo, Peru 272, Buenos Aires	A Simulation Model for the Argentine Economy
2. Belgium	Monsieur Jean Waelbroeck, 49 rue du Chatelain, Bruxelles 5	Modèle de croissance de l'économie belge
3. Britain	Professor Richard Stone, Department of Applied Economics, Sidgwick Avenue, Cambridge	Cambridge Growth Project
4. Czechoslovakia	inz. Jiri Skolka, Econometric Laboratory, Economic Institute, Czechoslovak Academy of Sciences, Politických vezhu 7, Praha 1	Long-term optimal plan
5. France	Professeur A. Nataf, Directeur du CERMAP, 19 rue de Passy, Paris 16 ^e	Essai de variante forma- lisée pour l'élaboration du V ^e Plan
6. Germany, West	Dr. G. Gehrig, Ifo-Institut für Wirt- schaftsforschung, 8 München 27, Poschingerstrasse 5	Forschungsvorhaben "Langfristige Projektion" des "IFO-Instituts"
7.	Professor Dr. Wilhelm Krelle, Direktor des Institutes für Gesellschafts-und Wirt- schaftswissen-schaften der Universität Bonn, Bonn, Liebfrauenweg 5	Prognosemodell für die Bundesrepublik Deutschland

A LIST OF CORRESPONDENTS

<u>Area of Application</u>	<u>Director of Project</u>	<u>Title of Project</u>
8. Germany, West	Professor Dr. H. Langelütke, Ifo-Institut für Wirt- schaftsforschung, 8 München 27, Poschingerstrasse 5	Disaggregated growth model to be constructed by means of input-output analysis and regression analysis
9.	Professor Günter Menges, Institute for European Statistics, Saar University, Saarbrücken 15	Econometric Analysis for Short-term Forecasting
10.	Professor Dr. Alfred E. Ott, Institut für Angewandte Wirtschaftsforschung, Tübingen, Biesingerstr. 25	Quarterly Model of the Federal Republic of Germany
11. Hungary	Dr. J. Kőrnai, Computing Center of the Hungarian Academy of Sciences, Budapest, V, Nador u. 7	Macroeconomic programing, 1966-70
12.	Dr. T. Morva, National Planning Board, Budapest, V. Nador U. 11	
13. India	Dr. S. Chakravarty, Presidency College, Calcutta	Research Project on Development Planning Methods
14. Ireland	Dr. R.C. Geary, The Economic Research Institute, 73 Lower Baggot Street, Dublin 2	An Input-Output Decision Model for Ireland
15. Israel	Dr. Michael Bruno, Research Department, Bank of Israel, Jerusalem	Linear Programing Model for Israel

A LIST OF CORRESPONDENTS

<u>Area of Application</u>	<u>Director of Project</u>	<u>Title of Project</u>
16. Italy	Professor Vera Cao-Pinna, "Centro di studi e piani economici," Roma, Via Piemonte, 26	Econometric Model of Growth and Geographical Distribution of Resources in Italy
17.	Dr. Siro Lombardini, Ires via Bogino 18, Torino	A Model for National Economic Planning with Three Regions
18. Japan	Dr. Tsunchiko Watanabe, Economic Research Institute, Economic Planning Agency, Government of Japan, Chiyoda-ku Kasumigaseki, Tokyo	Methodology of Long-term and Medium-term Planning
19. Yugoslavia	Dr. Branko Horvat, Jogoslavenski Institut za Ekonomika, Istrazivanja, Beograd, Savska broj 35	A Simple Model for the Preparatory Stage of a Medium-term Economic Plan
20. New Zealand	Dr. C.A. Blyth, N.Z. Institute of Economic Research, 26 Kelburn Parade, Wellington	Long-term target making for the New Zealand economy
21. Norway	Dr. Odd Aukrust, Central Bureau of Statistics, Dronningensgt 16, Oslo	1) Modis I 2) Modis II
22. Poland	Dr. Jozef Pajestka, Zaklad Badan Ekonomicznych Komisji Planowania, Warszawa, Plac Trzech Krzyzy 5	Structural Analysis for 1970
23. Portugal	Dr. Joao Salgueiro, Presidencia do Consello, Secretariado Tecnico, 51 Rua Alexandre Hermlano, Lisbon	Global Programing Project for III Plan of Portugal

A LIST OF CORRESPONDENTS

<u>Area of Application</u>	<u>Director of Project</u>	<u>Title of Project</u>
24. Sweden	Professor Ingvar Svennilson, Stockholms Universitets Nationalekonomiska Institution, Oddengatan 61, Stockholm	The Royal Commission for Long-term Planning
25. United Arab Republic, Turkey	Professor Jan Tinbergen, Haviklaan 31, The Hague, Holland	Formulating the Optimum Method of Development Planning for Developing Countries
26. United States	Mr. Jack Alterman, Division of Economic Growth, Bureau of Labor Statistics, U.S. Department of Labor, Washington 25, D.C.	Interagency Growth Study Project
27.	Professor Lawrence Klein, Department of Economics, Wharton School of Finance and Commerce, University of Pennsylvania, Philadelphia 4, Pa.	Econometric Model Project U.S.A.

INTERNATIONAL ORGANIZATIONS

28. European Economic Community (member countries)	Dr. J. Paelinck, Secretary's office: EEC, rue d'Arlon, Bruxelles 4	Economic Development Prospects in the EEC from 1960 to 1970
29. International Monetary Fund (39 countries)	Dr. Jacques J. Polak, Director, Department of Research and Statistics, International Monetary Fund, 19th and H Streets, N.W., Washington 25, D.C.	Monetary Analysis of Income and Imports
30. I.M.F. (Canada)	Dr. Rudolf R. Rhomberg, Chief, Special Studies Division, International Monetary Fund, 19th and H Streets, N.W., Washington, 25, D.C.	Model of the Canadian Economy with Special Emphasis on the Balance of Payments

A LIST OF CORRESPONDENTS

<u>Area of Application</u>	<u>Director of Project</u>	<u>Title of Project</u>
31. I.M.F. (three world regions)	Dr. Jacques J. Polak and Dr. Rudolf R. Rhomberg, Department of Research and Statistics, International Monetary Fund, 19th and H Streets, N.W., Washington 25, D.C.	World Trade Model

Source: Millikan, Max F. (Editor) National Economic Planning,
Columbia University Press, New York, 1967, pp. 27-32.

APPENDIX C

This appendix presents the numerical analysis of the budget and lists some of the areas of research in government accounting for a more meaningful classification of expenditures.

1. Continuing annual statistics are required to delineate the expenditures covered by long term planning and the expenditures covered by the one year programme (see table 23).
2. Research work is needed with respect to the amount of funds spent at home and abroad so as to determine the impact of budgetary expenditures on the country's balance of payments.
3. Refinement in the accounting system will be helpful in sorting out expenditures on traveling abroad from expenditures on goods and services acquired from abroad.
4. Thorough examination of expenditures on wages and salaries is required to provide data for the amount of funds spent on general administration and for the cost of managing state enterprises.

INITIAL MATRIX WITH TOTALS COLUMN 1 TO COLUMN9

13940.	1810.	5000.	2350.	0.0	0.0	0.0	1280.	20020.
0.0	0.0	9700.	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11100.	2140.	6000.	131500.	0.0	0.0	0.0	510.	133900.
140523.	400.	4110.	2842.	18890.	2842.	2842.	2842.	1774.
212846.	155243.	144709.	99617.	8564.	1814.	0.0	8376.	677649.
0.0	0.0	0.0	0.0	125.	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	588.	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	100.	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33853.	367.	20377.	12191.	13621.	422.	25.	13128.	138163.
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58110.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	126000.
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40000.
58110.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86000.
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	500.	41638.
0.0	0.	0.0	0.0	0.0	0.0	0.0	0.0	41638.
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	12500.	0.0	82000.	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	82000.	0.0	0.0	0.0	0.0	0.0
0.0	12500.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
470372.	264809.	189896.	330500.	41888.	5078.	2867.	26636.	1139149.
4.79570	2.69947	1.93610	3.36963	0.42707	0.05177	0.02923	0.27157	11.61426



INITIAL MATRIX WITH TOTALS-COLUMN10 TO COLUMN18

0.0	0.0	3001400.	0.0	0.0	3062140.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	16300.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	10062.	0.0	0.0	0.0
55000.	0.0	45480.	1800.	80650.	487340.	0.0	0.0	0.0
1774.	407.	3049.	35565.	3042.	228851.	8000.	39604.	4370.
1814.	0.0	1043353.	16885.	21210.	2392085.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	125.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	588.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	500.	600.	200.	0.0	400.
0.0	0.0	0.0	0.0	500.	500.	0.0	0.0	0.0
297.	106.	34418.	33383.	6596.	353939.	2000.	23987.	500.
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	6800.	60000.	3400.	0.0	315510.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	40000.	0.0	0.0	0.0
0.0	68000.	60000.	3400.	0.0	275510.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	50.	0.0	0.0	0.0	500.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	50.	0.0	0.0	0.0	500.	0.0	0.0	0.0
0.0	0.0	132406.	0.0	1950.	176494.	0.0	0.0	0.0
0.0	0.0	67000.	0.0	1200.	109838.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	152656.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	15374.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	136626.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	94500.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	82000.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	12500.	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58985.	83767.	4320106.	91033.	114448.	7291534.	10200.	63591.	5270.
0.60138	0.85405	44.04588	0.92813	1.16686	74.34123	0.10399	0.64835	0.05373

COMPUTING ENTIRE



INITIAL MATRIX WITH TOTALS-COLUMN19 TO COLUMN26

0.0	0.0	0.0	20800.0	3350.0	24150.0	3086290.0	31.466439
0.0	0.0	0.0	0.0	0.0	0.0	16300.0	0.166188
0.0	0.0	150.0	68000.0	46800.0	114950.0	125012.0	1.274567
0.0	0.0	0.0	27000.0	46500.0	73500.0	560840.0	5.718075
15057.0	86297.0	0.0	0.0	12550.0	159678.0	388529.0	3.961269
0.0	0.0	20965.0	912274.0	399306.0	1332545.0	3724630.0	37.974669
0.0	0.0	93748.0	21135.0	0.0	114883.0	115008.0	1.172570
0.0	0.0	0.0	0.0	0.0	0.0	588.0	0.005995
0.0	0.0	0.0	21700.0	14070.0	36370.0	36970.0	0.376930
0.0	0.0	101880.0	900.0	11000.0	113780.0	114280.0	1.165148
2350.0	36316.0	13008.0	99585.0	166890.0	348136.0	702075.0	7.158044
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	80990.0	80990.0	396500.0	4.042537
0.0	0.0	0.0	0.0	0.0	0.0	40000.0	0.407822
0.0	0.0	0.0	0.0	600.0	600.0	276110.0	2.815095
0.0	0.0	0.0	0.0	80390.0	80390.0	80390.0	0.819621
0.0	0.0	0.0	0.0	7000.0	7000.0	7500.0	0.076467
0.0	0.0	0.0	0.0	7000.0	7000.0	7000.0	0.071369
0.0	0.0	0.0	0.0	0.0	0.0	500.0	0.005098
0.0	0.0	0.0	9245.0	600.0	9845.0	186339.0	1.899829
0.0	0.0	0.0	0.0	0.0	0.0	109838.0	1.119859
0.0	0.0	0.0	0.0	0.0	0.0	232693.0	2.344444
0.0	0.0	0.0	0.0	100835.0	100835.0	116209.0	1.184815
0.0	0.0	0.0	0.0	0.0	0.0	136626.0	1.392978
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	94500.0	0.963480
0.0	0.0	0.0	0.0	0.0	0.0	82000.0	0.836035
0.0	0.0	0.0	0.0	0.0	0.0	12500.0	0.127444
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17407.0	119911.0	229751.0	1180639.0	889891.0	2516662.0	9808196.0	100.000000
0.17747	1.22258	2.34244	12.03727	9.07293	25.65877	100.00000	

PERCENTAGE MATRIX COLUMN 1 TO COLUMN 13

[illegible]

PERCENTAGE MATRIX-COLUMN 14 TO COLUMN 25

[illegible]