

PUBLIC POLICY ANALYSIS :
A STUDY OF INDUSTRIALIZATION POLICY IN NIGERIA
1960-82

Thesis submitted in accordance with the requirements of
The University of Liverpool for the degree of
Doctor in Philosophy by Onujabe Ademoh Onido

March 1984

DEDICATION

TO THE ONIDO AND ENESI EXTENDED FAMILIES

ACKNOWLEDGEMENTS

I acknowledge with a deep sense of gratitude the co-operation given to me by Dr. Stephen Wilks of the Department of Political Theory and Institutions, the University of Liverpool, during the course of his supervision of this thesis. He made himself easily accessible and his criticisms and suggestions have been very thought provoking and have led to improvements in earlier drafts. I also thank Mr. M.R. Davies, the Director of Public Administration, the University of Liverpool, for his prompt assistance in problems requiring administrative attention. Mrs. Pat Brooksbank has been very helpful in typing the thesis - my thanks for this.

Finally, I thank my family for their understanding, sympathy and help. I should mention in particular my mother, Mrs. Ochunuma Onido, who has shown more than the normal maternal interest in my education since my childhood. My late father, Onujabe Onido, and my late sister, Mrs. Onyeku Yahaya, who had also been keen on my education, are fondly remembered.

O.A. Onido.

March 1984.

TABLE OF CONTENTS

	Page
Acknowledgements	i.
Table of Contents	ii.
List of Tables	iv.
Preface	vii.

PART ONE

INTRODUCING THE POLICY APPROACH

<u>CHAPTER ONE</u> - <u>Public Policy : What is it and how is it made?...</u>	2.
Policy and Public Policy - What do they mean? ...	2.
The Making of Public Policy	12.
Stages in Public Policymaking	13.
Actors in the Public Policy Process... ..	16.
<u>CHAPTER TWO</u> - <u>Public Policy Analysis : Its Domain Tools and Methods</u>	31.
Defining Public Policy Analysis	31.
Models for Public Policy Analysis	41.
<u>CHAPTER THREE</u> - <u>The Evolution of Industrialization Policy in Nigeria</u>	59.
What is Import Substitution?	60.
The Origin and Objectives of Import Substitution ...	63.
Import Substitution in Nigeria : Its Origin and Objectives	64.
The Process of Import Substituting Industrialization	68.
Policy Instruments for Implementing an Import Substitution Programme	73.
The Impact of Protectionist Policies	76.
The Promotion of Manufacturing Exports in Nigeria.	82.
The Nigerian Export Promotion Council	83.
Manufactured Exports from Nigeria	87.
Conclusion	91.

PART TWO

STRATEGIES IN NIGERIA'S INDUSTRIALISATION POLICY

Introduction	95.
<u>CHAPTER FOUR - The Investment Strategy</u>	100.
Interventionism and Industrialization Policy in Nigeria	104.
Industrial Investment Within the Framework of a Planned Mixed Economy	110.
The Public Sector	111.
The Private Sector	115.
Government Encouragement for Manufacturing Investments	126.
Evaluation of Performance	146.
<u>CHAPTER FIVE - The Technology Strategy</u>	155.
The Meaning of Technology	158.
Types of Technology	161.
Sources of Technology	164.
Technology Strategy in Nigeria	172.
Strands in Nigeria's Technology Strategy	175.
R & D Activities in Nigeria	180.
Reports on Public Enterprises which have Potential for Technology Development through technology transfer	189.
The Vehicle Assembly Plants	189.
The Iron and Steel Projects	193.
Conclusion	199.
<u>CHAPTER SIX - The Manpower Strategy</u>	202.
The Machinery for Manpower Planning in Nigeria	206.
Essential Elements in Manpower Planning	209.
The Manpower Situation in the Nigerian Economy	212.
Programmes and Institutions for the Development of Manpower : A General Overview	216.
Formal Education and Training Programmes	220.
Non-formal Training Institutions	224.
Conclusion	230.

<u>CHAPTER SEVEN</u> - <u>Conclusion</u> ...	234.
The Systems Model and the Policy Process in Nigeria..	235.
Summary	260.
Reflections on the Present Study and Beyond ...	264.
APPENDIX 1	268.
APPENDIX 2	269.
APPENDIX 3	270.
APPENDIX 4	271.
APPENDIX 5	272.
APPENDIX 6	273.
APPENDIX 7	274.
APPENDIX 8	275.
BIBLIOGRAPHY	278.

LIST OF TABLES

	Page
3.1 Nigeria's Balance of Payments 1968-80 (Summary Statements)	79.
3.2 Nigeria's Import Trade : Machinery and Raw Materials as a Percentage of Total Imports, 1969-81	79.
3.3 Manufactured Exports as a Proportion of Total Exports	88.
4.1 Distribution of Foreign Private Investments According to Each type of Asset : Manufacturing Compared with Aggregate	121.
4.2 Sectoral Distribution of the Proportion of Investments held by Nigerians for the Period Shown	122.
4.3 The Distribution of Nigerian and Expatriate Shareholding in the Manufacturing Enterprises	124.
4.4 Holdings of the Single Largest Shareholders in Manufacturing Enterprises by Nationality and Value of Shares : Nigerians and Expatriates	124.
4.5 Distribution of the Cost of Concession (in terms of lost revenue) Granted under Approved User Scheme...	132.
4.6 Amount Shown in Government Account as Anticipated Loss in Revenue due to Depreciation Granted in Manufacturing and Processing for the period shown..	132.
4.7 NBCI Loans to Manufacturing Projects for the Period Shown	134.
4.8 Distribution of NBCI Loans Among Manufacturing Projects for the Period 1974-82 arranged in Size Order ...	134.
4.9 Cumulative Distribution of NIDB Sanctions Among Projects (1964-81)	137.
4.10 Distribution of NIDB Sanctions Between Public and Private Sponsored Projects, 1970-80	138.
4.11 Analysis of Commercial Banks Actual Loans and Advances to the Production Sector (Nm)	141.
4.12 Index of Manufacturing Output (1972 = 100)	148.
4.13 Value-Added and Gross Manufacturing Output : Nigeria Compared with Other Middle Income Countries ...	149.
4.14 Gross Domestic Product at Current Factor Cost for the Period 1975-76 - 1979-80	150.
4.15 Value-added by Selected Manufacturing Industries (1972 = 100)	152.
4.16 Gross Fixed Capital Formation, 1975-80 : Percentage Averages	153.

5.1	Engineers in the Technical Division of ANAMMCO	...	192.
6.1	Sectoral Distribution of Total Gainful Occupation in Percentages, 1970-80	210.
6.2	Wage Employment as a Proportion of Gainful Occupation 1970-80	211.
6.3	Distribution of Wage Employment Among Major Economic Activities in Percentages 1970-80	211.
6.4	Demand for Manpower Directly Involved in Manufacturing as at 1/4/77	213.

GLOSSARY

Naira (N) - The Nigerian Currency fluctuates widely in value but falls within .75 and .85 pound sterling most of the time.

PREFACE

This study makes a departure from previous research in the area of industrialization in Nigeria in its scope, objectives and method. Before we state the basis of differentiation it will be helpful to review briefly a selection of those other research works which are most relevant to the present study. Two criteria have been used for the selection : time and depth of study. Thus only those research works which have been published since 1960 and which have been detailed enough to produce a book will be reviewed briefly with respect to their scope, objectives and method.¹

The following works have, therefore, been selected for this purpose:

- Akeredolu-Ale (1975), The Underdevelopment of Indigenous Entrepreneurship in Nigeria;
- Berger (1975), Industrialization Policies in Nigeria
- Biersteker (1978), Distortion or Development? : Contending Perspectives on the Multinational Corporation;
- Kilby (1969), Industrialization in an Open Economy;
- Onyemelukwe (1966), Problems of Industrial Planning and Management in Nigeria;
- Schatz1 (1973), Industrialization in Nigeria : A Spatial Analysis;
- Sokolski (1965), The Establishment of Manufacturing in Nigeria;
- Teriba, Edozien and Kayode (1981), The Structure of Manufacturing Industry in Nigeria;
- Thomas (1975), Capital Accumulation and Technology Transfer : A Comparative Analysis of Nigerian Manufacturing Industries.

Akeredolu-Ale dealt only with entrepreneurship which is seen in this study to constitute just one part of the manpower dimension of an industrialization process. Akeredolu's concern was to show, using the Nigerian case study, that there is an emerging theory of entrepreneurship in the developing countries which can best be explained from an historical viewpoint. He rejects the conventional view exemplified in the works of McClelland's The Achieving Society (1961), and Hagen's On the Theory of Social Change (1962), which argue that the response to economic opportunities are dependent

1. A large number of articles on various aspects of industrialization in Nigeria have been published mainly in the Nigerian Journal of Economic and Social Studies within the period covered by this study. Those of them which are useful to the study have been referred to in the body of the thesis and are included in the bibliography.

almost exclusively on values, motivations and tendencies which are either inborn or to which the given individual has been socialized at an early age. On the contrary, Akeredolu argues, the history of present day developing countries has been such that entrepreneurial responses have had to come from a 'deliberate manipulation of the immediate context of action and structure of the situation'. This manipulation has been done through governmental policies and actions, and they have, Akeredolu emphasized, produced widespread and effective results in generating entrepreneurial enthusiasm in otherwise 'apparently unenterprising populations'. In so emphasizing the importance of governmental actions in generating entrepreneurial response Akeredolu does share the major concern of this work, although only in one short chapter did he attempt to account for government policies which have been aimed at the creation of entrepreneurship in Nigeria. This was done in Chapter Three where he showed that for the period between 1946 and 1966 it was government action more than anything else which accounted for the growth of indigenous entrepreneurship in Nigeria.

Berger based his work on the objectives of industrial policy stated in the 2nd National Development Plan. The central theme of those objectives in Berger's views is the 'rapid expansion and diversification of the industrial sector'. Berger called this the primary objective of the plan in question and therefore devoted a great part of his work to describing that objective and what he saw as the strategies for its achievement - import substitution and the promotion of exports. Nigerianization, regionalization, increased incomes and more employment are treated as secondary objectives and are again described. There is little or no theoretical content and the discussion of policy which in regards to the title of the work has received relatively less attention was again a descriptive account of government measures in aid of industry.

The objective of Biersteker's work was to assess the validity of the contending theoretical perspectives regarding the consequences of multinational investment in the under-developed countries. It is the view of the author that such a comparison will enable a more accurate determination of the negative and positive consequences of multinational investment in an under-developed country. Using the Nigerian case study to illustrate

the theoretical contentions on both sides, he concludes that there is more to validate the theories which uphold the negative consequences. The study did not consider policy issues at all. It is only in Chapter Eight that the government was mentioned and this is only in reference to the role of the middle men (described as compradores) whom the multi-nationals have cultivated to use in their dealings with the government.

Kilby's study shares many of the concerns of the present work. It discusses in some detail issues such as import substitution, education and skilled labour, applied industrial research and indigenous enterprise. In all of these cases, however, the major focus of discussion is historical, since the objective of Kilby's study is 'an analysis of the process of industrialization in Nigeria over the period 1945-66. [And this analysis has been made] within the framework of a fairly comprehensive historical treatment ... 'Being historical in orientation therefore a large part of each chapter has been a descriptive account of the events which have taken place within the period covered by the study which relates to the subject of that chapter. In the case of import substitution, however, (Chapter Four), the chapter concludes with a discussion of the policy implications of the events reported earlier in the chapter. This was done in two and a half pages with reference to another two and a half pages of the discussion of the role of the government in Chapter One. Here and there in the discussion of each chapter Kilby has also made policy prescriptions to deal with the observed problems. The concluding chapter proposes a strategy for industrialization and again prescribes a set of economic policies which will achieve that strategy.

The primary objective of Onyemelukwe's book was to undertake a case study of the problems of industrial development which faced the First Republic and to use this as a basis for recommending future action. Accordingly he described the problems which he saw as obstacles to industrial development in Nigeria at the time of his study and suggested the kind of policies which could help overcome these problems and therefore quicken the pace of industrialization. In prescribing his measures, Onyemelukwe did not account for their feasibility; thus the political, economic and administrative issues which determine whether a given policy shall become a reality or whether it will exist only as prints on paper were not accounted for. It is acknowledged, however, that Onyemelukwe's work shares some of the major concerns of the present research. For example, Chapter 2,

which is a fairly long chapter, discussed 'Government and Industrialization', and Chapters 3, 8 and 9 respectively considered 'Financing Industrial Growth', 'Research and Development', and 'Manpower Development'. However, Onyemelukwe's approach to the study and the period covered has made that work of little use to the present research.

Schatzl's work is a study in industrial geography and its aim 'is to describe and explain the spatial process of industrialization in Nigeria and to analyse its impact on the economy'. The work for one thing is distanced away from the present study by its area of concern and its central focus. However, in pages 99-107 Schatzl presents what he saw as governments' instrument of industrial location policy. They include government participation in industrial ventures either in partnership with private enterprise or as wholly owned public concerns; the provision of industrial estates and other infrastructure, all of which have been seen in the present study to serve more fundamental objectives than mere industrial dispersal.

For Sokolski, his book attempted 'to ascertain the role, nature, and extent of modern manufacturing industry in Nigeria [and to assess] its prospects in terms of the obstacles and opportunities indigenous to Nigeria'. Achieving the above objectives led Sokolski 'to study [Nigeria's] resources, infrastructure and finances', and it is only in respect of the last, discussed in Chapter 6 that direct reference is made to policy questions - government fiscal incentives to industry which existed at the time of the study in question were described in that chapter. The discussion did not extend to the broader political implications of the incentives concerned.

In The Structure of Manufacturing Industries in Nigeria, Teriba et al. aimed 'to provide basic information and undertake in-depth analysis of the manufacturing industry in Nigeria'. Thus most of the book was devoted to describing and analysing the factors which to its authors have determined the structure of Nigeria's manufacturing industries. They include, the structure of Nigeria's economy itself, product and factor markets, indigenous and foreign ownership. The concluding chapter of the book discussed the policy implications of these matters; observing the weaknesses in the existing policies and making suggestion for improvement. The emphasis in this discussion is on the ownership structure as it relates to foreign and indigenous investors and as these affect the rate of technological development. Again, because their study falls short of a political analysis,

Teriba et al. neither accounted for 'the why' of their observed problems nor for 'the how' of their prescribed measures.

Finally, Thomas made a comparative analysis of Nigerian Manufacturing industries in order 'to show that effective technology transfer.... did not accompany the accumulation of capital in most of the Nigerian manufacturing industries'. The study does touch on one of the issues of primary concern to this research. Thomas' approach is purely economic and this study has benefited from his analysis in that respect.

The above description of the previous research on industrialization in Nigeria should enable the reader to see clearly the point of departure of the present study. (Industrialization is studied here as a subject in policymaking. Its aim is to help us understand the social, economic and, above all, the political issues which determine the content, the direction and the paradigm of public policy in Nigeria and the processes through which these themselves are determined. In achieving this aim the policy approach has been used to analyse the activities relating to industrialization in Nigeria, the underlying reasons for those activities and the results which they have produced. The study is divided into two parts of three chapters each, with a seventh chapter which concludes the study. Chapter One has two sections. In the first section, the concepts used in policy studies and policy analysis are defined and the problems which they present in their application to the practical activities of policymaking highlighted. Section two presents the processes involved in public policymaking, which has been distinguished from policymaking in the private sector in section one. Chapter Two focusses on the analysis of public policy; what it entails and the methods and tools used in the enterprise. In Chapter Three an attempt is made to lay a bridge between the theory of policymaking and the practice of that activity by discussing the evolution of industrialization policy in Nigeria. The development of the latter policy is first discussed and then analysed in terms of the policy process introduced in the earlier chapters. The three chapters in Part Two are empirical and present and analyse data about the three strategies which are seen in this study to constitute Nigeria's industrialization policy. They are the investment strategy, the technology strategy and the manpower strategy. Each strategy is discussed in a chapter which is introduced with relevant theoretical exposition. The concluding chapter achieves two main purposes. First it attempts to give this study its distinctive orientation as a study mainly in the area of

politics. Accordingly the politics of public policymaking in Nigeria generally; and of the making of industrialization policy in particular is exhaustively discussed and their implications for the Nigerian socio-economic and political system analysed. Second, the chapter brings together the major conclusions of the study and projects the implications of these conclusions for future research in Nigerian public policymaking.

Methodology

The method used in this research has been dictated by the nature of the subject matter. For example proforma questionnaire, a popular method in doctoral research was considered and found to be difficult to apply here. The diverse nature of the subject makes it almost impossible to devise a questionnaire which will logically bring together all the issues which are relevant to this study; but this is the lesser of the problems in this respect for even if a questionnaire can be logically constructed it will be so lengthy that no one will want to answer them. The cost would also have been beyond the resources available for the research. We found it more practicable and as it turned out more rewarding to conduct on the spot interviews and to consult relevant documents both within the policy-making institutions and in the libraries. The Nigerian Institute of Social and Economic Research (NISER), Ibadan, was particularly useful in the latter case. As for interviews, access was sought and obtained to the appropriate officials of the Federal Ministries and other institutions whose activities bear directly on the industrialization policy. Interviews were accordingly conducted in the following Federal Ministries: Industries, Commerce, Finance, National Planning, Technology, Steel Development, and Education. Officials of a wide range of government agencies were also interviewed. They include the National Manpower Board, the Nigerian Office of Industrial Property, the Centre for Management Development, the Industrial Training Fund, the Nigerian Industrial Development Bank, the Nigerian Bank for Commerce & Industry, the Federal Institute of Industrial Research, the Nigerian Product Development Agency, the Nigerian Standard Organization, and a few Industrial Development Centres. These interviews were generally very rewarding. Officials were forthcoming in their discussions and in answering questions, and they also devoted ample time to the interviews. Some of them were interviewed twice and in a few cases thrice. A most valuable opportunity was the occasion of the press conference given by the Minister of Industries. Many

valuable questions were asked during the conference and the answers given have been very informative. Ministry officials were not, however, as forthcoming when we came to documents. Many of those to which access was sought were said to be classified and therefore could not be made available. The most notable here were the agreements for the joint ventures between the Federal Government and foreign firms. In all cases these were said to be inaccessible to researchers. In a number of cases access was gained to open files and to minutes of meetings. Ministerial brochures were available and have provided very useful information. The non-Ministerial agencies were more willing to make documents available but these are less important than the Ministries 'secret' documents. Interviews and the search for documents also covered all the agencies described in the thesis as agencies for implementing Nigeria's industrialization policy. Here also appropriate officials were interviewed and access was sought with success to relevant documents. Brochures provided a valuable source of information here as well. We have also used extensively secondary material about Nigeria in books and journals. These have been useful in filling the gaps between original sources and in confirming some of our findings. The data presented in the body of the thesis, therefore, are authentic and should provide a solid base for the conclusions drawn. (The theoretical part of the thesis relied on selected literature in the area of political theory, public policymaking and public policy analysis and of economic and industrial policymaking in the under-developed countries. These sources have helped to clarify initial ideas held about the subject matter of the thesis and have provided the conceptual tools used in the analyses made. Systems theory has been particularly enlightening and has been used for a detailed analysis of the politics and processes of the Nigerian policymaking in the concluding chapter. //

PART ONE
INTRODUCING THE POLICY APPROACH

1

This part aims to develop the policy approach which has been used in this study. Burch and Wood (1983 : 12) see the basic elements of the policy approach as 'the centrality of the scope of government and the wider context within which it operates'. Thus attempts are made in the three chapters of this part to distinguish in theory and practice the scope of governmental activities that constitute public policy and how these activities are conceived, organized, executed and studied. The first two chapters address this task from a more general perspective while the third chapter introduces the centrality of the government in Nigeria's industrial activities by discussing the evolution of industrialization policy in the country. The discussion here anticipates the more detailed treatment of the central role of the Nigerian government and its agencies contained in the rest of the thesis.

The specific attributes of the policy approach which appeal to this study will be mentioned at the end of Chapter One. On a general count, the policy approach has been chosen here to provide a new orientation for the study of the Nigerian industrialization process and to emphasise the utility of the political and policy systems model in the analysis of public policy.

CHAPTER ONE

PUBLIC POLICY : WHAT IS IT AND HOW IS IT MADE?

The task of this chapter is to present the substance and dynamics of policymaking. This is done in two sections. The present section which deals with substance attempts to define public policy and to delimit its boundaries. To achieve this objective it asks and answers the following questions: What is policy? How does it differ from other related concepts such as decision, strategy, mission, and project? When does policy become public? The answers to these questions will help to convey what exactly constitutes policy generally and public policy as a distinctive type of policy.

Policy and Public Policy : What do they mean?

Policy has sometimes been used as a substitute for politics. This is common with those who see politics as inseparably tangled with partisanism and corruption (Lasswell, 1951 : 5). The preference of policy to politics for these people therefore is an attempt to present policy as the objective study of political actions (Baker et al., 1975, 2). There is a problem with this definition - it is too restrictive. It would put all policies in the public domain but policy is as much a phenomenon of the private sector as well as the public sector of national life. Baker et al. (1975 : 23) came closer to a more acceptable view when they state that policy is 'a body of principles to guide actions', but this is how ideology is often defined hence we stand the risk of a conceptual overlap unless care is taken to specify very precisely the way in which the two concepts (ideology and policy) are related. This will be attempted in the concluding part of this section. A more universally applicable definition is that which sees policy as a continuous process of decisions and activities which take place principally within definite organizational structures. Such structures may be public or private.¹ Further policies are strategic decisions, since not all decisions are part of policy; they are futuristic in that they involve anticipations and forward projections (Pollitt et al. eds., 1979, ix). The futuristic attributes of public policy and their implications for policy analysis are commented on in the next section but, for the moment, it is

1. As Lasswell (1951:5), will have it, 'the word policy is commonly used to designate the most important choices made in organized or private life. [Hence] we speak of "government policy", "business policy", or "my own policy"....'

acknowledged that Pollitt et al.'s definition avoids the tendency of confining policy only to the public sector. Anderson (Ashford ed., 1978) sees policy as transcending governmental activities to human purposiveness. As he argues, 'a policy is more than state action or activity. It is a conscious contrivance, reflecting human purposiveness and it is in some sense a moral act' (p.20). Again comments are made in the next section on the value premise of policymaking, especially its public variant. Heclo's definition of policy introduces once more the problem of a conceptual overlap this time between policy and power. He (1972, 83-108) suggests that a policy might be 'usefully considered as a course of actions or inactions'. To Heclo policy must include 'what is intended and what occurs as a result of the intention'. Indeed a policymaker is a power wielder (Smith, 1976) and Heclo by defining policy as a course of actions or inactions strikes a familiar note to the student of power. This concept has been defined as decisions and non-decisions, issues and non-issues (Lukes, 1974). The problem associated with defining policy, especially public policy as action or inaction is pointed out below. It is appropriate to recall here that Bauer and Gergen (eds. 1968) have noted the fallacy of treating the policy process simply as decision-making. They argue that such a perspective assumes 'that someone is aware of the problem, that he can devote full time and attention to it, and that the issue has a clear-cut beginning and an end' (p.16). This seems to be a valid statement. Policy problems, apart from being difficult to define in the first instance,¹ are also elusive and continuous² even after they have been defined. Their nature and hence the necessary solutions change according to the spacio-temporal context within which they surface. This and the fact that policy and policy analysis is at once problem solving and problem creating (Wildavsky, 1979a) or problem solving and problem seeking (Alexander, 1982) seems to suggest that a conceptualization of policy in problem terms will always end up in a dilemma especially for public policymaking. Problem-creating and problem-seeking

-
1. The use of such words as 'wicked' (Rittel and Webber 1973) and 'squishy' (Strauch, 1975), to describe the nature of the policy problems is meant to suggest that policy problems may not only defy cognition, they may defy the analytic technique as well. Strauch is emphatic on the latter. We will discuss the difficulties which policy problems pose to models of policy analysis in Chapter Two.
 2. The continuous nature of the policy problem is perhaps what has so much commended the use of the systems model in policy analysis for that model makes it possible to see how policy problems, especially if they are the naggy types that cannot be solved in a single attempt, progressively respond to solution efforts as they circulate in the systems flow.

policies, for example, would be characteristic of compromise politics. In the bargaining leading to a political compromise a group may be offered a deal for which there is no existing policy but once accepted that deal becomes a policy solution seeking a problem which will have to be created in order to uphold the compromise.

Raymond Bauer (Bauer and Gergen, 1968, eds., 1-2) classifies actions and decisions within institutions as either routine actions, tactical decisions or policy. Routine actions are 'repetitive and demand little cognition'; tactical decisions are 'more complex, have wider ramifications and demand more thought'. Policy on the other hand refers to 'decisions which have the widest ramifications and the longest time perspective; they require the most information and contemplation'. In institutions as Bauer stipulates, these are called policy matters. It is, therefore, possible and in fact insightful to define policy from the perspective of the level of the organizational hierarchy at which a matter is considered. Policy matters are the preserve of the highest levels of the organization while routine actions belong to the lowest levels; but all, as Bauer and Gergen would argue are part and parcel of the policy process. Thus policy transcends the activity of policy formation (1968 : 2-3). Three dimensions are distinguished. First, it involves decision-making and the intellectual processes leading to this: perception, analysis and choice. Second, it involves interaction among the people within the organization on the one hand and between these, the organization and the environment, on the other. This is implied in the logistics of policy implementation, that is the prompt mobilization and deployment of necessary resources and the management of the motivations for their effective use.¹ Third, it involves the continuous redefinition of the policy problem to reflect the changes in the environment and the resources of the organization.

One final approach to defining policy to be considered is that which pegs off its confines from those of other concepts with which it shares tangential boundaries (Paine and Naumes, 1975 : 4-10). Taking a descriptive

1. The phrase 'management of motivation' is intended to apply to those who are to implement policies and those to whom the policies are directed. The management of motivation for the first group of people may involve such material and immaterial incentives as financial rewards, or advancement for successful implementation or the delegation of authority. On the other hand the people to whom policies are directed may be motivated by their participation in the processes leading to the formulation of the policy or being led to understand very precisely how they are affected by the policies. It is assumed in the latter case that public policies will always have good intentions; such that their target citizens will always stand to gain by them.

approach, Paine and Naumes define policy as organizational decisions and goals which:

1. involve wide ramifications.
2. involve a long time perspective; and
3. use critical resources towards perceived opportunities in a changing environment.

Policy to these authors is 'an intellectual' as well as 'a continuing dynamic social process'. In order to clearly map out the confines of policy they go on to delimit the boundaries of the concept from those of mission, objective, strategy, programme, and role. A mission is described as the scope of operations in terms of either product or market or in terms of service to clients. One refers to the private sector the other to the public sector. It is more appropriate, however, to define a mission as the scope of operations in terms of set objectives. Seen from this broad perspective, a mission comes very close in meaning to policy, hence a private firm may describe its mission as return on capital while a government may have a mission for the expansion of education, or as the subject of this thesis implies, the industrialization of a country. If missions are the set objectives within which an organization¹ operates, what then are objectives? Paine and Naumes describe them as 'hoped for result, goals or targets'. The sources of organizational objectives include the external environment, directives of top executive or power plays among the people within the organization. It should include as well the motivations for setting up an organization or the laws which have created them. These, as will be seen later, have been the sources of the objectives of the public agencies set up for the implementation of industrialization policy in Nigeria.

Strategies 'are specific major actions or pattern of actions for attainment of objectives' (p.6). We may draw an analogy from living things and call strategies the organs of policy. More specifically, and this is how it has been used in this thesis, a strategy may be taken as the design and implementation of a set of inter-related programmes for the attainment of a single objective, for example, technological development. It may require the creation of (organizations) an organization or (agencies) an agency provided with the resources deemed necessary for the achievement of the objective of the strategy. Three strategies seen as the organic components

1. A government or its agency is taken as an organization for this discussion.

of Nigeria's industrialization policy have accordingly been considered in this work: the investment strategy, the technology strategy and the manpower strategy.

A programme is a specific major aspect of policy. It is as Pain and Naumes have it, 'generalized procedures that are used in response to a particular type of stimulus. To continue with our analogy, this is the molecule of the policy organism. It is the units of which strategies (the organs of policy) are made. We have, therefore, discussed the programmes of which each of the strategies mentioned above is constituted in their respective chapters. The chapter on the investment strategy for example discusses public sector and private sector investment programmes in the manufacturing industries.¹

Programmes are finally administered in the form of specific projects. Details of the projects through which the industrialization programmes of Nigeria is being implemented have been described in the empirical chapters. They include the iron and steel projects, industrial development centres and training institutions of all kinds. It should be emphasized again that the dividing line between all of these concepts is very fine in the practical world of policy-making. While, for example, we may talk of a policy in relation to a major activity of government, such as industrialization policy, the agencies of the government involved in implementing this policy may come out with a programme of action of their own which they too refer to as policies. This indeed has been the case with the present study. Thus we will find in the empirical chapters many references to the policies of one agency or the other which are involved in implementing Nigeria's industrialization policy. One may be tempted to distinguish agency policies by referring to them as such, but this will only proliferate the policy-making concept further and may lead to greater confusion rather than clarification. It is advisable, therefore, to leave the usages as they are and to be mindful about their differences in application.

1. It should be noted, however, that the dividing line between a programme and a strategy may be very fine at times and that both may be used interchangeably in such instances. Grindle (1980 :6) argues that a policy can only be implemented after it has been translated into action programmes, hence, 'a variety of programmes may be developed in response to the same policy goal'. Grindle's action programme would mean the same thing as a strategy as we have defined it above.

If, as we have argued, policy is an activity of the private as well as the public sector, how do we distinguish between the two. The rest of this section tries to show those characteristics of public sector policies which distinguish them from the policies of the private sector. The justification for this distinction are two-fold. First it will facilitate a clearer understanding of the scope and substance of public policy. Second, it should be illuminating to the analyses undertaken in this thesis since Nigeria's industrialization policy, the subject of the thesis, is pursued within the context of a mixed economy which involves public as well as private organizations.

Public policy has a much wider scope and objectives than the policies of private organizations. One is quick to point to the fact here that the activities of private organizations are themselves regulated by public policy hence it can be argued that the latter subsumes the policies of the private sector. In terms of goals public policy endeavours to produce outputs to satisfy public demands and welfare. The public, therefore, has a special interest in public policy which they see as goals to be 'achieved by a governmental decision or set of decisions'¹ (Caputo ed., 1977 : 1). But if public policy aims to satisfy public demands and welfare how is this satisfaction to be measured? Herein lies a major problem for public policy; its outputs cannot be measured in quantifiable terms. We cannot measure in countable units public satisfaction in such matters as education, housing, health and so on; nor can we in fact do so for policies dealing with economic matters such as taxation, import control or investment which are themselves quantifiable. The difficulty in measurement here arises because policy decisions are about value choices (Eyestone, 1972 : 80). Thus at best we can only measure public policies in terms of the values which underlie them and as they are expressed in the goals and objectives which the policies set out to achieve. This is what has been attempted in the empirical part of this work, where each chapter concludes with an evaluation of the subject matter of that chapter - investment, technology, or manpower - in terms of its specific objective and in terms of the overall objective of the industrialization of Nigeria. Compared with public policy the policies of private organizations are narrower in scope and objectives. The pursuit and maximization of profits easily dominate their objectives while their scope is quite often narrowly defined by their products or their market share.

1. The general public, as will be shown below, are themselves actors in the public policy arena.

Public policy is much more constrained by the legal context within which it operates. All the policies of the government must conform with the country's constitution otherwise they are dismissed by the courts as ultra-vires if action is brought before them in respect of such policies. One problem posed by this is that public policy easily becomes inflexible and this may impede the success of a given policy. It will be argued in Chapter 6 that the public sector has not had its fair share of the available manpower which is generally scarce in Nigeria for skilled workers and that this is because it has been unable to offer attractive benefits to match those offered by the private sector. Of course public sector remunerations are fixed by law in all countries and cannot be altered straightway by its employment agencies to reflect the scarcity of a given group of manpower. The policies of the private sector do not operate at the macro-legal level described for the public sector above. Equitable treatment of clients, the reason for the constitutional-legal supervision of public policy is not a modus operandi of the private sector. In the pursuit of their objective of profit-making they mete out treatments to clients according to whether these shall maximize that objective or not. Thus they may charge different prices for the same products to their customers.

Public policy is under the constant scrutiny of the public. We have already noted that the public hold a view of what public policy is all about. In a country which guarantees freedom of expression and speech the public may voice condemnation or commendation according to their assessment of the performance of the government and its agencies with regards to a given public policy. In most cases, on the other hand, the policies of the private sector are seen as their own affair and do not draw the attention of the general public in the above manner.

Public policy operates in a political context. This in fact is why its goals are broad and vague, why they are difficult to measure, and why the direction in which these goals move draw the attention of the public. The political context of public policy makes it a thoroughly evaluative enterprise and Dror (1967 : 197-203) has argued that values should be accepted as an inherent part of public policy even in its scientific study. We shall comment further on this below. The requirement of the equitable treatment of clients and the legal-constitutional foundation of public policy all derive from the politics of that activity. Again the policies of private organizations are apolitical in this sense. Theirs once more is micro-politics concerned with the power plays within their organizations and how these operate to foster their overall goal of profit-making.

The distinctions drawn above between public policy and the policies of the private sector is not intended to convey the idea that the two are completely different. What difference there is between them has been a matter only of degree and not of kind. As we showed throughout that section the policies of the private sector share with public policy, all of its characteristics except that in each case these characteristics operate at a micro level in the one while they do so at a macro level in the other. Nadel (1975 : 2-34) argues that certain policies of the private sector may have far-reaching public consequences and that they qualify to be called public policy in such cases. He cites pollution and employment as areas in which the policies of the private sector could have dire consequences for the citizens of a country. The relationship between public policy and the policies of the private sector may also be seen as one of inter-dependence. It was stated above that the policies of private organizations are regulated by public policy. This regulation may be such that affects the success or failure of the policies they concern. Thus the level of profits of private enterprises is dependent to a great extent on the level of taxation. The converse of the 'inter-dependent' argument is also true, hence the success of public policy may also be determined by the policies of the private sector. It will be argued in Chapter 5 that technology development in Nigeria has been adversely affected by the policies of the MNCs operating in the country regarding the transfer and diffusion of technology. This will be an instance of public policy failure as a result of private sector policies. However, whatever their effects on public policy or their consequences for society as a whole, the policies of the private sector lack the legitimacy, universality and legal-bindingness which according to Dye (1978 : 20) constitute the distinct characteristics of government policies. As this argument concludes, government policies command loyalty of all citizens, they concern the entire society and breach carries a distinctive penalty - imprisonment, fine or even execution - which the government alone can enforce because it has a monopoly of the legitimate use of force. The distinction between public and private sector policies will be clarified further in the discussion which leads to a precise definition of public policy undertaken presently.

From what has been said so far, public policy may be seen simply as the affairs of governments. Thus Dye (1978 : 3) defines it as 'whatever governments choose to do or not to do'. It is necessary to qualify this definition since what government does not act upon is so diverse that to regard this also as public policy will be absurd (Heidenheimer et al., 1983).

patterns of demand and the structure of the decisional system. They argue that the relationship between demand and support gives rise to two fundamental types of policy : allocative and structural. Allocative policies are 'decisions which confer direct benefits, material or symbolic, upon individual and groups' (p.43). They may range along a distributive-redistributive continuum whereof resources are 'distributed equally or unequally among objects of policy or redistributed in a zero-sum manner' (p.47). Structural policies on the other hand, 'establish authoritative structures or rules to guide future allocations'. Their variability is along a regulative-self-regulative outcomes. Following Salisbury and Heinz's allocative policies, a question relevant to this study may be asked - 'Have the Nigerian human and material resources been distributed equally among the object of policy (such as industry, education, health, housing and so on all of which are important for development) and according to their relative merits? The argument being pursued is that for Nigeria and other developing countries it may be difficult to allocate weights to the various development programmes in terms of their actual contribution to the achievement of the development objective usually taken as a general societal advance - increase in welfare and comfort. The most obvious example is the heated debate about whether agriculture or industry should receive the highest priority in the development programmes. The debate will equally be unending if it is taken up for say, health and education, public works and transport or any conceivable pair of government activities. It is perhaps better for the governments of the developing countries not to heed these debates but simply to select any service or (group of services) activities which it can manage effectively within its resources, since they all have potentialities for development and may in fact be inter-dependent. As we shall see in Chapter 4 industry has taken an increasing share of public sector expenditure in Nigeria since 1975 but neither public works nor education has suffered as a result, hence it will be argued in Chapter 5 that the rapid expansion in education programme is an extension of the industrialization policy.

Let us return now to the relationship between public policy and ideology. First, what can we say against the background of the discussion presented up to this point and the insight gained from it, constitute public policy? What is clear from those discussions is that public policy is the output of governments. It concerns what governments choose to do or not to do regarding an issue on the political agenda and taking action to ensure that that choice obtains. It is because, then, public policy is the output of governments that they have frequently been seen to have an

As Heidenheimer et al. argue, the inaction of government about a particular issue becomes a public policy when it is 'perceived by at least some major participants as being on the political agenda' (p.7). Heclo's definition (1972:85) needs this warning as it sees public policy as 'the course of action pursued under the authority of governments', further it 'concerns organizing purposive action in a society by state authority', as well as 'meta-choices'. The latter refers to 'choices as to how others shall make choices in whatever sphere public authority is intervening'. This is one sense in which, as we have suggested, the policies of the private sector themselves fall within the circumference of public policy. Jenkin (1978 : 13) presents a definition which is a nigh replication of Dye's. He calls public policy, 'the action and inaction of political authorities'. Further, public policy is 'a set of interrelated decisions taken by a political actor or group of actors concerning the selection of goals and the means of achieving them within a specified situation where these decisions should, in principle, be within the power of these actors to achieve' (p.15). The second part of Jenkin's definition fits very well into what is being done in this thesis - it is a study of a set of inter-related economic decisions taken by the Nigerian public authorities concerning the direction, pattern and goals of industrialization in their country and the allocation or deployment of resources to achieve this goal which at least in the perception of the authorities is a task they can achieve. Jenkin, therefore, brings us to a point at which it will be appropriate to move towards a definition of public policy as it is conceived in this study. Those cited so far have all agreed that public policy is the policy pursued by a government or its agency; it is the means by which a government fulfils its responsibilities to those who live under its jurisdiction. Thus Easton (1965) would say that public policy is the means by which societal values are authoritatively allocated, or Lasswell (1963) that it is the means by which those 'who get what? when? and how?' in the political system are determined. Also Lowi's typology of public policy derives from the perspective of this being an activity of the government. His three types of public policy : distributive, regulative and redistributive, he argues constitutes the 'real arenas of power' (1964 : 689) and are distinguished according to the impact the particular policy has on the groups it affects (1964, 1968). Salisbury and Heinz (Sharkansky, ed., 1970) expanding on Lowi's typology have, in their type of public policy, distributive, redistributive, regulative or self-regulative. These emerge as outputs of the various types of interaction between the

ideological content, and this is especially the case with economic and industrial policies, since governments all over the world today operate within one or other of the three economic arrangements which nations have adopted. They may be free market economies, they may be centrally planned states, or they may be mixed economies. Nigeria, the country of this study, calls itself a mixed economy. While it is true that capitalism and socialism have come to be accepted as the ideological correlates of market and centrally planned economies respectively, the ideological connection of mixed-economies is not quite as precise. Hence these economies may operate without a definite ideological commitment. It will be argued in Chapter 7 that this has been the case in Nigeria. The problems which this creates for the country's interventionist policies will be highlighted. In concluding this section, a brief comment on the utility of the policy approach is appropriate.

The policy approach has been commended to this study for its usefulness in directing attention to policy outputs and in analysing these outputs in the context of the political and administrative processes which went into constructing the objectives and programmes on which they are based. The literature on the conceptual approaches to public policy reviewed above are felt to have substantial relevance to policymaking in Nigeria and therefore informs the analysis made throughout this study.

The Making of Public Policy

In the last section we tried to define public policy in terms of its contents and context. The present section deals with the processes and activities involved in public policymaking, and the persons involved in these processes and activities. This section, therefore, is about the evolution of public policy. The questions posed are: 'How does public policy come into being? Who are the actors in the public policy arena?'. To answer the first question we shall briefly consider the stages through which ideas pass to become a policy in the public domain. The answer to the second question will lead to a consideration in some details, of the persons involved in processing ideas into public policy.

Stages in Public Policymaking

Public policy, as we have said, is the output of governments; but these outputs are only the end products of a long and sometimes tortuous process. Public policy starts with ideas which may be expressed in the form of demands for the supply of new products and services to the polity or demands for the establishment of new relationships within and without the state. Ideas for policy may also be expressed in the form of complaints about observed defects in existing products, services, and inter-relationships; and demands that these defects be rectified. We may say then that policy ideas grow from urges within the internal and the external environments of a state, hence it might be said differently that policy ideas grow from ecological urges (Lawal : 1980).¹ These felt needs in the socio-political environment constitute the germ of public policy. The felt needs and their expression, is the first stage in public policymaking and is referred to as policy initiation. Thus industrialization policy in Nigeria grew from the felt need by the country's authorities at independence for industrialization as a means to foster economic development.

Once policy ideas are sufficiently² recognized and expressed, those charged with responsibility for policymaking begin to act. The consideration of how to respond to an ecological urge and the determination of what exactly the response will be, is called formulation in policy studies. What precisely is done at this stage is laying down an action plan considered to be the appropriate response to the felt needs which have been expressed and initiated into policy by their inclusion in the political agenda. This action plan includes on the one hand statements about what is to be done,

-
1. This concept has been derived essentially from Easton's political systems model which it should be recalled includes the social, political, economic, cultural and the physical environments of a socio-political entity that we have here called the state. The use of ecological urge, we believe, facilitates a fairly accurate imagination of the socio-environmental dynamics that produces a policy. It may be observed, however, that some writers have chosen to focus greater attention only on selected variables within the environment when considering the causes of public policy. Stonecash (1980) has considered the causal inter-relationships between politics, wealth and public policy, and argued that the first two are facilitative rather than causative to the last. His contention is that politics only provides a milieu for a relationship to develop between demands and policies hence the workings of the political process 'may not act on certain demands'. As for wealth, Stonecash contends that it 'makes it possible to create a relationship between desires for public policy and that public policy. [It] is a means to achieve some desired end, and not the cause of the end'.
 2. This qualification is necessary because of the requirements that policy ideas be perceived by major participants as being on the political agenda before they can give rise to a policy (Heidenheimer et al., 1983).

and the allocation of the necessary resources on the other. But there is a seeming problem with this view of formulation - how does it encompass policy by non-decision or inaction? A little clarification will put this straight. Policymaking by non-decision does not in fact mean non-chalance on the part of those who should decide. It means, especially within public policymaking, that a decision has been made that no action will be taken about a particular matter. Thus 'non-decision' policymaking is part of the possible responses to an ecological urge. The decision that no action will be taken is still part of formulation even though this may be 'difficult to observe because [it is] not represented in the policymaking process by legislative enactment' (Smith, 1976: 13). But non-decision policies, like their more observable kinds consume resources too. In a country where public opinion matters, a government has to justify its inaction about an issue on the political agenda to the electorate or even the world at large through publications, adverts, and propaganda all of which require that resources are deployed. It is during formulation also that the objectives and paradigm of a policy should ideally be decided, but this does not always happen as we shall see later. Development plans have served as the media through which industrialization policy in Nigeria has been formulated. These plans carry statements about the industrial objectives of the government as well as the proportion of the national resources to be devoted to the achievement of the objectives.

After a policy has been formulated and its action plan designed, the next stage is to put these into effect. In policy literature, this is called implementation. Implementation may thus be described as the actualization stage of the policy process; the stage at which something is created in, and/or removed from the socio-political environment. It involves the mobilization and deployment of the resources allocated at the formulation stage and the monitoring and measurement of the results achieved as a result of these actions. Thus, Pressman and Wildavsky (1973) would argue that implementation is the empiricisation of the theories expressed in policy formulation. These theories try to relate goals to expected outcomes and it is the task of implementation to bring these outcomes into existence. As they write (p.xxi):

Policies imply theories..... If X then Y. Policies become programmes when, by authoritative action the initial conditions are created. X now exists. Programmes make the theories operational by forging the first link in the causal chain connecting actions to objectives. Given X we act to obtain Y. Implementation then is the ability to forge subsequent links in the causal chains so as to obtain the desired results.

A serious problem for implementation, however, is that the underlying assumption of the theories relating policy goals to outcomes is faulty. These theories assume a perfect determinism between policy choice and policy outcomes. If this assumption was true, then it will be possible to predict exactly what result will be achieved by the time a given policy is implemented during the formulation stage where the major choice decisions are made. But implementation experience is replete with cases in which implementation does not lead to the expected outcome (Berman, 1978) and this is what implementation analysis is out to prove.

The empirical part of this thesis deals extensively with the implementation of Nigeria's industrialization policy and raises issues regarding the management of this aspect of the policy. Attempts are made throughout to relate expected goals to the results actually achieved (outcomes) and to highlight how much they come close together.

The final stage in the policy process is concerned with what happens during and after the implementation of a policy: how have the new policies implemented fitted into related policies or the public policy universe of the state as a whole? Did implementation achieve the goal(s) set out in the action plan? Have new problems arisen as a result of new policies or, what new ecological urges have been agitated by the implemented policies which should be processed into new policies? These and many other questions are asked at this stage of the policy process called evaluation by students of this discipline. From the foregoing four stages: initiation, formulation, implementation and evaluation are discerned in the policy process.¹ In practice, however, these distinctions are for the most part only analytical; the processes merging indistinguishably into one another. This is particularly the case with formulation and implementation, but they are also true to some extent of initiation and implementation. The latter may create new ecological urges to be initiated into policy in a process called 'feedback'. These intricacies in the public policy process are explained further in the discussions which follow immediately.

1. This is a simplified classification. Some people prefer to classify impact and outcome separately, but we have treated these as part of implementation. Also in more complex schema each stage may be further broken down into stages of their own. Hogwood and Peters (1982 and 1983) have broken outcomes into policy maintenance, policy termination and policy succession.

Actors in the Public Policy Process

Just as the distinction between the stages of the public policy process is only an analytical reality, so is the distinction between the actors in the process. It can be argued that each of the stages distinguished above may involve the ordinary citizens, bureaucrats, politicians/legislators, judges and policy analysts. The above persons, however, may only be a primary actor in one stage at a time. The focus in the following discussion is, therefore, on the primary actor at each stage in the evolution of public policy. First we shall discuss initiation and then discuss formulation and implementation together, arguing that because of the particularly close relationship between the two stages, primary actors there act indistinguishable roles; an argument supported by theoretical formulations which shall be used to introduce the discussion of that bit. Finally we will treat evaluation separately, and suggest that policy students and analysts are the primary actors here.

Actors at the Initiation Stage

Public policy, we have said, is initiated when certain needs in the socio-political environment have been sufficiently felt to be expressed. But who in the environment should express these needs. There are two main sources of needs-expression, what may also be called demands, made on the political system (Easton, 1965). Demands may originate from below, that is from the ordinary members of the political community or they may originate from the political authorities. These sources of policy demands have served as the basis for conceiving governmental models. The one is described as a liberal mode, the other as an authoritarian one. Rose (1975) includes three other models, which broadly considered fall into one or other of the above two. He posits models of social control or social autonomy, and two models of court politics. In the first group of models as Rose proposes, 'non-governmental institutions interact with popular demand', (p.62) to present the substance for public policy. This will fall under the liberal category. In Rose's court politics on the other hand 'parts of the "black box" of government interact with each other without regard to popular demands', in considering and selecting the subjects of public policy. Here clearly will be a case of authoritarianism.

The liberal model has gained by far more acceptance in political science and public policy analysis and this is usually defended on the ground of its structural democratism and functional instrumentalities to popular participation in public decision-making, hence political participation has been defined as, 'taking part in the formulation, passage and implementation of public policies' (Parry ed., 1972 : 5). One readily recalls, however, that a regime which can be classified as democratic by its structural characteristics may nevertheless function undemocratically. Such a regime will be unenthusiastic about popular participation and may even suppress it. On the other hand, regimes which are easily branded as authoritarian may be found to accommodate some form of popular participation. During the long years of Gowon's military government in Nigeria, especially after the civil war, major public policies were thrown open to public debate before they were decreed into law. We shall come back to this shortly. It seems therefore that the authoritarian model has frequently been denied what might be called 'intellectual candidization'¹ on the a priori assumption that authoritarianism is bad in all situations and everywhere. But this will be difficult to sustain if subjected to a rigorous empirical test. There is an opinion which is gaining ground in Nigeria, although not yet the subject of an academic literature or systematic research that some measure of authoritarianism will be necessary to govern the country effectively. People who hold this view are quick to compare the record of achievement of the military regime with that of the civilian government from which it seized power and the one to which it handed it over. In both cases they have argued that the achievement of the military in social and economic development (pointing to the many social overhead capital and other infrastructural facilities which had grown enormously during the military era) has been far greater than those of the two civilian governments and that this is attributable to the authoritarianism, call it dictatorship, of the military. Even more importantly and very ironically too, it has been argued that the expanded scope for democracy within Nigeria's Second Republic is owed to the military and their high-handed approach to policy-making. What is referred to here is the restructuring of the Nigerian federation into states of fairly equal sizes. It was this action which removed once and for all the political uncertainty which the unequal sizes of the Regions created for the First Republic. The Northern Region, it should

1. Intellectual candidization is intended to refer to the practice in which intellectuals consider a number of possible candidates for a perspective and recommend one of them on the basis of an objective assessment of their suitability for the perspective being considered.

be recalled was almost two thirds in area and contained more than half of the population of the country, hence it was always sure to dominate the Federal Government at any election. Southern objection to this and their efforts to secure the restructuring of the regions, especially the North, through the democratic process achieved no results because the then powerful Premier of the Northern Region, Ahmadu Bello, opposed the idea and had used his enormous political influence to ensure that it did not happen. As a last resort, armed revolt was contemplated. One such revolt being conceived by the Action Group - one of the two main political parties in the South - was still at a planning stage when it leaked to the Northern dominated Federal Government and the leaders of the party were tried and convicted for 'treasonable felony and conspiracy'. This then is the kind of situation which the creation of states has removed from the Nigerian politics and for which that exercise qualifies as an act in nation-building and in laying the foundation for a healthier democratic process within a united Nigerian federation. Diamond (1982, 629-68) argues that state creation has resulted in cleavages across ethnic bonds and has, therefore, secured greater integration of the Nigerian society. It will be shown in Chapter 7 that ethnic politics in Nigeria's First Republic was more than just a problem : It was a nuisance which the makers of the country's present constitution recognized as such and have sought to remove through constitutional provisions.

Finally, it was the military which instituted - against one of the bitterest students' uprising the country has seen - 'the National Youths Service Corps'. This is a scheme which requires that graduates of higher learning spend the first year of their working life serving the nation for less pay than they would normally receive in States other than that from which they originate. The greatest importance of this scheme for Nigeria is that for the first time a conscious step has been taken in the policy-making arena to break the prejudices and mistrust which the different parts of the country mutually held against one another. One frequently meets serving corp members who openly admit that they would never have visited the part of the country in which they were serving if it had not been for the National Service, and are quick to add that they are happy to have been given the opportunity to correct the wrong impressions they previously held about the area in question. Marenin in his study 'National Service and National Consciousness' (1979, 629-54) confirmed that the above views are widely held by N.Y.S.C. participants, hence he concludes that, 'there is generally agreement that the NYSC... has contributed to greater national

unity and a lessening of ethnic tension' (p.638). Still recommending the authoritarian model for policymaking in Nigeria some people have even suggested further that the greater effectiveness of Murtala's government (the military regime that overthrew Gowon) compared with Gowon's is because the former was more authoritarian. Again the speed with which that government decided major and potentially explosive policy issues such as the location of the country's new capital and the citing of the Iron and Steel projects without incidence are given as examples of this greater effectiveness. For Gowon the politics which had developed around these matters had frightened him away from taking decisions for fear of offending contending interests. These politics grew out of the public debate (referred to above) which Gowon's government had encouraged as a measure of popular participation. It should be pointed out as well that liberalism and the whole of the democratic argument it embraces has received serious intellectual objections. Once citizens form themselves into organizations, they become the inevitable victim of elite domination. This is the theme of Michels' 'Iron Law of Oligarchy'. Dye has similarly argued that there is little or no relationship between public policy and public opinion. He asserts that studies have shown that 'the masses have little knowledge of, interest in, or opinion about a great many policy questions' (1978 : 297). Thus, as he further argues, elite-mass opinion linkage for many policies would show that policy changes correlates more with changes in elite opinion than changes in mass opinion. We shall discuss the elite model of public policy analysis along with other models in the next chapter. The comments made in the preceding discussion is not intended to deny that where it can be effectively achieved, popular participation has great value for policymaking or for that matter that it is superior to authoritarianism. Policy implementation is greatly aided if the policy concerned originates from those it affects; or where it originates elsewhere, if the sanction of those affected is obtained at the formulation stage. What is argued on the other hand, is that the liberal model must be seen as an ideal and that this should not be allowed to becloud situations in which it is the authoritarian model that will be more effective.

Given that public policy should ideally originate from citizen's demands, how precisely should they make these demands? It is inconceivable that the individual citizens should make their demands directly on the state for then the sheer volume of the demands would easily out-stretch the machinery for processing them into policy outputs in even the most politically efficient system. Also the size of the demands would lead to disjointed and contradictory

policies. Citizens' demands for public policy are, therefore, made in aggregates into which they have formed themselves for this purpose. The two most important of such groupings are political parties and interest groups, and we will discuss each of them presently.

1. Political Parties

Political parties are the major source of policy demands in many present day states. A political party usually possesses a set of policy preferences which it sells to the citizens in an attempt to win elections and capture the governmental reins of power. The election of a party into office is taken as evidence of citizens' approval of its policies and it has become a common practice for political parties to make their controversial policy proposals an election issue.

Political parties have had very little influence on the industrialization policy in Nigeria. Towards independence in 1960, the parties based their struggle for power on regional and ethnic following rather than on an attractive manifesto to be presented before the electorate. Nor did they have any substance for such a manifesto for as Post (1963 : 113) claims in his book, The Federal Election of 1959, the three major political parties which vied for power at the centre in that election had no ideology, and without an ideology the parties lacked a clear perspective on which to draw a manifesto expressing the philosophy they symbolize in programmes.¹ The government brought to power by the 1959 election lasted barely 6 years before it was overthrown by the armed forces and the 13 years between 1966 and 1979 saw three successive military governments. It was during this period that the greater part of Nigeria's industrialization policy was initiated and formulated although their implementation spans over the military era. As we go through this thesis, therefore, we shall find that many of the laws which embrace the industrialization policy of Nigeria are in the form of decrees. The return to party politics in 1979 has not brought industrialization into the programmes favoured most by the political parties. The National Party of Nigeria (NPN) which took over from the military and has been in power since then ranks agriculture and housing as its topmost priority.² Its greatest contender for power, the Unity Party of Nigeria (UPN), has a 'four cardinal programme' (education, employment, health, and rural development) which does not include industry. In spite of

-
1. We will in Chapter 7 comment more fully on the position of ideology in Nigerian politics with special reference to interventionism; and the mixed economy approach to industrialization. The role played by political parties as a means of fostering an alliance between the business and the political elites will also be discussed.
 2. The Assistant Director in charge of Industry and Commerce at the National Planning Office had said that it was only by the persuasion of the planners that industry got the third place. The politicians he argued had wanted to give that priority either to education or health (Interview 4/8/82).

industry's relative unimportance among its programmes, the present government has made important pronouncements on industrial policy and the industrialization process in general. This has come in the form of a policy document to which frequent references will be made later.

There is scope for a ruling party to influence industrialization policy in Nigeria through its manifesto if industry ever becomes a prominent programme of such a party. The Ministry of Industries will be too willing to co-operate in this task. An official of the ministry stated that there is a machinery for incorporating the manifesto of the ruling party in respect of industry into the planned industrial policy of the government (Under-Secretary, Policy Planning : interview, 14/8/82).

2. Interest Groups

Interest groups are socio-economic aggregates of people who organize at a less than party plane to enhance and protect the interests of their members by making demands on the government and seeing them through into policy. They vary a great deal in nature and the methods they use to pursue their interests, and this in turn determines the extent to which they can be regarded as a force to reckon with in policymaking. Trade unions and other economic interest groups are often very influential. Hence their views and co-operation may be sought over policies which affect them both at the formulation and implementation stages. Other interest groups are not taken so seriously. For example 'The Association for the Preservation of Wild Life', may not be consulted at all at any stage of the policy process in matters which affect the interests they organize to enhance. The main difference between the two is that unions are recognized by law and they may engage in a legal battle if their interests are threatened or trampled upon. This together with their weapon of strikes are forces which the policymaker cannot ignore once they are invoked. An association like the one mentioned above, can only engage in picketing, protest marches or demonstrations and policymakers may decide not to take any notice of these without suffering anything as a result. It can still be said, however, that interest groups join political parties in trying to influence public policy, but the type of issues they would want to influence differ. Parties take on a national focus and, therefore, try to influence all issues of public policy according to their perception of the national interest. Interest groups are mainly concerned with the narrow interests of their members;¹ although there

1. Higher prices, low taxes, professional privileges, preservation of wild life and so on.

are times when they (especially the economic associations) have to see their interests in a national context. This may mean that they present a national view on certain matters of economic policy because their interests may suffer if such policies were to take one direction rather than another. Interest groups participation in public policymaking is illustrated hereunder by the two most relevant economic associations to this study: the Manufacturers' Association of Nigeria (MAN) and the Nigerian Association of Commerce, Industry, Mines and Agriculture (NACIMA).

The Manufacturers' Association of Nigeria

MAN was established in 1972, 'as a voluntary organization to influence government policies which affect the manufacturing industries in order to ensure that these policies go in the direction desired by its members'. [This is because] 'MAN recognizes that it has a stake in ensuring that the right industrial policies are pursued' as the consequences of wrong policies may bring about the liquidation of industries and with it MAN itself. (Director General of MAN, interview, 25/8/82). One of MAN's major objectives, therefore, is to give expert advice to the government on industrial policies. The association is staffed with this objective in view as 26 of its 40 personnel are graduates of economics and business management. The Director himself is an experienced civil servant with a master's degree in economics and a doctorate in political science. The emergence of MAN has been well timed, since it coincided with the time when most of the industrialization policy was formulated. Thus its first seven years saw a remarkable success in its objectives as it participated actively in the formulation of the 3rd and 4th National Development Plans which as we shall see in Chapter 4 contain more than two thirds of Nigeria's industrial programmes. MAN prepares and submits a pre-budget paper to the government which reviews past policies and makes suggestions for policies to be included in the imminent budget. This again it started early in its existence. Although the association appears to have lost in relative influence since the advent of civilian government in 1979, it has nevertheless been given full recognition by the administration. The Minister for Industries grants audience to the association once every two months and it is frequently summoned to testify to committees of the National Assembly when matters which affect industries are being considered. Also, it is represented on a number of ministerial committees such as the Industrial Development Co-ordinating Committee of the Ministry of Industries (discussed in Chapter 4) and this provides a forum for MAN to influence policy hence as the Under

Secretary Policy Planning, stated in the interview referred to above 'an outcry from MAN may give rise to a 'policy'. MAN has also been actively engaged in seeking favours for its members from the government. One recent example has been at the instance of the austerity measures taken in 1982 to salvage Nigeria's ailing economy. Part of the measures put a ban on the importation of certain items or the operation of services (such as private jetties) which the association considered to have adverse effects on manufacturing activities. MAN mounted pressures for the relaxation of these measures and was able to win considerable concessions - a number of private jetties were re-opened to handle cargo and some items were removed from the importation ban.

A major problem for the association is that its membership is too small - 500 including foreign owned companies, compared with the thousands of manufacturers in the country. In an attempt to solve this problem the association appointed and posted four organizing secretaries to different parts of Nigeria some time in 1982 to locate manufacturers and persuade them to join MAN. In spite of its limited membership, the association does not face any financial difficulty as members contributions, its main source of revenue, are paid promptly. The director replied with an emphatic no to a question put during the interview to find out if MAN receives any financial assistance from the government, arguing that the association cherishes its independence which is a source of strength in its dealings with the government.

The Nigerian Association of Commerce, Industry, Mines and Agriculture (NACIMA)

NACIMA as the name suggests covers a much wider interest than MAN. It is also a much older association, dating back to 1888. MAN has since its formation taken over much of NACIMA's industrial interests, as the big industrial concerns have preferred to go over to the former. Today NACIMA caters only for small industrialists. Its method of operation is similar to that of MAN - testifies before legislative committees, submits pre-budget memos to the government and is represented on a number of government bodies such as the National Shippers Council, the National Manpower Board, and the Nigerian Ports Authority. NACIMA faces the same problem as MAN: the vast majority of those whose interest it has been established to protect have not joined the association. This problem is even more serious for NACIMA as the top 10% of its potential members are among those who have chosen to operate entirely outside the association. Generally MAN has been more effective than NACIMA and this according to its Director General (NACIMA's) is because of the former's 'better defined role' (interview : 16/8/82).

Actors in Formulation and Implementation

Whether it is in fact the mass of the citizens or the elites who initiate public policy ideas, their formulation into outputs and the latter's implementation are the onus of what Lindblom (1968 : 70) calls 'the proximate policy makers'. They include a country's chief executive, its legislators and administrators at both national and local levels (Lindblom, 1968:11). Thus the proximate policymakers are in short the politicians and the administrators. However, the interaction between the two groups of actors at the formulation and implementation stages in the policy process is so intimate that it is not possible to say which of them is the primary actor at which of the stages. Accordingly, there are theoretical formulations which argue the unity of action between them for any or both of these two stages in the evolution of public policy. It is useful therefore to discuss, if only briefly, two of these theories as an introduction to the discussion undertaken here.

One explanatory view about the relationship between politicians and administrators in the policy process is offered by Peter Self (1977 : 150). He argues a distinction between politics and administration in terms of a process which can be represented by an arc whose left arm signifies the political process while the right arm signifies the administrative process. The crest of the arc is 'the critical point at which political will flows into and energizes the administrative system : and it is also the point at which influence that have been generated within the administrative process flows back into the higher levels of the political process. There is thus at the apex of the arc, a fusion of political and administrative influences which have been generated lower down the two arcs'. There is one problem with Self's formulation which he acknowledged himself. What is the relationship between the two ends of the arc? Their complete separation suggests that somewhere, somehow, the two processes (political and administrative) can be separated from one another. Peters systems approach (1978: 8) overcomes this problem. Like all systems analysis there is a flow of interaction between politics and administration, or between politicians and administrators (See Appendix 7), in their joint task of converting input demands into policy outputs. If we consider Easton's feedback loop along with the diagram then a circular flow of interactions between the two actors will be established. This shows that in the process of converting demands into outputs or public policy, the administrators and the politicians are in a continuous and dynamic interaction and this underlies the interchangeability of

roles between the two actors at the formulation and implementation stages of public policy. Again the systems approach to public policy analysis is discussed in Chapter 2 where it is suggested that this approach has advantages over others, and that this may be an explanation for its extensive use in policy studies. For the moment we shall attempt to demonstrate whether or not the theory of politico-administrative fusion is validated in practice by the activities which take place during the formulation and implementation of public policy. This is done by discussing the main features of the two processes along with the activities and the actors involved in them.

1. The Relationship between Programmes and Policy

It was suggested earlier in this chapter that a policy is broken down into programmes as a first step towards its implementation. The reverse of this statement is also true for formulation. Thus a policy is formulated by bringing related programmes together. But who designs the programmes? The task of designing programmes for policy belongs to the administrators who have the relevant information and expertise for that activity. This, however, is not the end of the matter. The actual task of formulation is greatly eased if programmes come before the legislators in clearly defined units and arranged in their logical linkages. With this the legislators can easily see how the programmes form into strategies and how the strategies in turn link up into a policy. It is also true that administrators help implementation in advance when programmes are well designed in the first instance. If this happens, the task of unbundling policies back into programmes for the purpose of implementation will merely be a matter of routine. In addition the progressive elaboration of policy into programmes may lead to a convergence between the two at which point they can be used interchangeably (Grindle, ed., 1980 : 7). Thus the provision of cheap water and electricity to industrialists as programmes within a government industrial policy may themselves be called policies of industrial promotion. This means that the beneficiaries of programmes may recognize only the administrators as the policymakers.

2. The Ingredients of Public Policy

The formulation of policy belongs formally to the politicians; but the administrators are the custodian of the vital information necessary for that activity. Also, the expertise and experience of the latter are indispensable if realistic policies are to be formulated - realistic in terms of their feasibility as well as reflecting the continuity of the state. Commenting on the relationship between the politicians and administrators in the United States Hecllo (1977 : 172) argues that career officials have become the cradle of public policy. He further argues that:

... the top bureaucrats' power derived from withholding help is enormous. Unlike the 'legislative veto' (in which executive actions take effect unless disapproved by Congress), the 'bureaucratic veto' is a pervasive constant of government, for without higher civil service support almost nothing sought by political executives is likely to take effect.

The systems model also presents administrators as sources of public policy ingredients through their feedback function. As the contact point between the citizens and the political system, the administrators are in fact the 'feelers' of the system.

3. Implementation Decisions

Implementation involves taking decisions some of which may even alter the content and goals of policy. The latter is especially the case where goals were not agreed at the formulation stage. In this case, as Clintock (Grindle, ed. 1980:24) argues, 'power is shifted down in the political system during the implementation stage of the policy process'. Here is a situation then in which the doctrine of policy is supplied during implementation (Pressman and Wildavsky, eds. 1979, 186). Another instance of implementation decision is concerned with the re-allocation of resources. We stated above that the allocation of resources for the achievement of action plan is a formulation activity, but these resources as Grindle observes, 'may be re-allocated at the site of implementation in order to achieve more pressing and general regime goals....' (1980 : 31). But the re-allocation of resources in this manner may drastically alter policy objectives. Thus (Pressman and Wildavsky, 1979 : 184):

policies are continuously transformed by implementing actions that simultaneously alter resources and objectives..... Altering objectives may change the significance of behaviour that are seemingly the same..... When social security changes from insurance to income re-distribution, the same name covers different realities.

A third type of implementation decision attempts to evaluate the 'correctness' of a policy about to be implemented. This is done to determine the extent to which the policy needs be implemented. Pressman and Wildavsky (1979 : 169) have suggested that if policies are deficient less implementation is better than more. It can be argued that in instances such as these, implementors/administrators do not only engage in policy formulation they are doing so more qualitatively as their decisions have positive repercussions for the would-be beneficiaries of the deficient policy. We may finally conceive of implementation decisions in the form of strategic choices required for programme implementation (Grindle, 1980:25). They include the manner in which programme goals would be pursued, the organization to be responsible for implementation, the limits of the programme, the timing of results, the pattern of communication and the structure of authority within the implementing agency.

The various types of implementation decisions alluded to above reinforce the argument that administrative discretion is part and parcel of policymaking. Again Pressman and Wildavsky note the incompatibility between 'literal execution and successful implementation' suggesting that the use of discretion distinguishes the latter. Further, they argue that 'policy ideas in the abstract.... are subject to an infinite variety of contingencies, and they contain worlds of possible practical application' (1979 : 189-190).

4. Building Implementation into Design

It has been argued that implementation starts during policy design (Pressman and Wildavsky, 1979:172). This takes the form of decisions made at the formulation stage which determine how a given policy is to be implemented. Details of specific actions to be taken and the person or persons to take them may be supplied during the formulation stage, that is, programmatic instructions may be built into policy legislation.

The formulation and implementation of industrialization policy in Nigeria illustrate to a great extent the kind of close interaction between administrators (bureaucrats) and politicians in the policy process described

above. The interaction has been strengthened in this case by the practice of formulating and implementing the country's industrialization policy through the development plans - the second of the three examples given below demonstrates this.

First, a policy may originate by the Minister asking his top bureaucrats to put up a memo proposing a policy, say in reaction to a demand from MAN. If the memo receives the 'blessing' of the Minister, it is passed on to the Economic and Finance Committee (consisting of the Permanent Secretaries of all the Economic Ministries) and may end up in the Cabinet (consisting of Ministers of that rank) if approved by the Economic and Finance Committee. Were it to receive the further approval of the Cabinet the memo then serves as a basis for a policy proposal by the government to be tabled before the National Assembly to be passed into law. We see here bureaucrats and politicians playing a role in a chain of processes leading to a policy outcome; and the Under-Secretary (Policy Planning, interview:14/8/82) emphasized that many of the policies, or more appropriately, many of the programmes, originating from the Industry Ministry and indeed all the other ministries are made in the processes just described. The joint interaction between the politicians and the administrators in the industrial policy process is even more amply illustrated by the activities leading to the formulation and implementation of the public sector industrial programmes.

At the beginning of each plan, the industry division of the National Planning Office (NPO) organizes a seminar to which interested persons and organizations including the Universities and MAN are invited. Papers presented at the seminar, together with those sent by people who may choose not to attend, help the division generate ideas which are formulated into guidelines for the industrial programmes envisaged in the incoming plan period. These guidelines are then sent to the federal and state ministries of industries and to local governments, as a basis for drawing their proposals for the plan. Project lists come back to the industry planners at the NPO who then conduct feasibility studies to determine the viability of the desired projects. Those projects which pass the viability test are forwarded to the Joint Planning Board (consisting of the most senior planners) for further consideration. From here approved projects go to a conference of the political heads (Minister at the Federal level and Commissioners at the State level) of all the planning ministries in the country. The list emerging from the conference goes finally to the National Economic Council (composed of state governors

and their economic advisers and chaired by the Vice President) where it is formally sanctioned as part of a current plan. The National Assembly is informed about the scope and size of the plan and this it keeps in view when appropriating funds in the annual budget. Since the funds for implementing a plan come from budgetary appropriations, the scope and size of that document can be altered through the exercise. Thus the National Assembly may, so to say, redraw a plan by excluding projects contained in it from the annual appropriation of funds in the budget. What we have seen here is how bureaucrats (as officials in the NPO or in federal and state ministries of industries, and as planners in the Joint Planning Board) on the one hand, and politicians (as the Federal Minister for Industries, state commissioners of industries, state governors and their economic advisers, the Vice-President, and legislators) on the other, play joint roles in formulating the objectives of the nation's industrialization policy and the programmes through which it is to be implemented. These objectives and programmes as we shall see in Chapter 4 are part and parcel of any development plan in Nigeria.

Finally, the unity of action between administrators and politicians in formulating and implementing public policy is demonstrated by the many agencies (discussed in Chapters 3, 4, 5 and 6), which have been created to help with the task of implementing Nigeria's industrialization policy. These agencies are usually brought into existence by legal instruments which spell out their functions, scope and objectives sometimes in great details. These details have contained (as will be seen in the chapters referred to above) specific instructions regarding how the agencies should go about achieving their objectives. This will be an example of building implementation into design. On the other hand, the agencies have found it helpful to start operating by reformulating the objectives stated in the law creating them into functional rules and directives and to use these as a basis for establishing departments, sections or divisions within themselves for performing specific assignments. In so reformulating their objectives, the agencies are unavoidably drawn into making implementation decisions and the scope for this is broadened by the internal decentralization just mentioned. Attempts will be made as we go through the thesis to re-emphasize issues relating to the politics of industrial policymaking in Nigeria.

Actors at the Evaluation Stage

Those primarily involved in the formulation and implementation of public policy may at times want to know the full impact of their actions especially when they concern major policies. Although the monitoring of impact is, as we said, part of implementation activity, what is done there is insufficient to uncover the full consequences of a policy. The task of establishing this is left to policy analysts and students. Policy analysis is the subject of the next chapter, and we do not intend to go into it here, but a brief statement about analysts as actors in the policy process is in order at this point.

Policy analysts try to answer the relevant questions posed after a policy has been implemented. These questions, as we indicated above, relate to the manner in which a policy was formulated and implemented, the achievement of policy goals and the issues and problems arising therefrom. Pollitt et al. (1979:196) have suggested what the analyst should be concerned with when he evaluates a policy. They include the quality of policy formulation, the procedures for decision-making, the quality and quantity of information sought and used. These authors also observe that the design of an appropriate criteria for policy evaluation may be difficult as they will tend to be too broad for effective use. They nevertheless suggest the following as a general guide: public approval, the fairness in the distribution of the burden and/or benefits of a particular policy, the efficiency of a policy measured by its costs and effectiveness, and hence the extent to which its goal was achieved.

This thesis should be seen as an exercise in policy analysis. Thus, at the end of each empirical chapter an evaluation is made of the success of the aspect of the industrialization policy dealt with in that chapter. The criterion of evaluation is the achievement of goals and objectives. A further evaluation is made at the end of the thesis. Here the focus is on the interaction among the strategies considered in the empirical chapters and whether those strategies have been administered in a way which blend them into a coherent industrialization policy. The scene for this exercise is set in Chapter 2, which discusses the models of policy analysis and suggests their possible application to the present study.

CHAPTER TWO

PUBLIC POLICY ANALYSIS : ITS DOMAIN, TOOLS AND METHODS

In Chapter One we dealt with the meaning of public policy and the processes and actors involved in its making. The present chapter discusses the analysis of public policy. As in the previous chapter, questions are posed and answered. We will, accordingly, answer the following questions: What exactly constitutes public policy analysis? Why is it analysed and what are the models used in this analysis? How useful is the analysis in furthering our understanding of the subject matter of public policy?

Defining Public Policy Analysis

One way in which policy analysis has been defined has been to compare and contrast it with systems analysis (Dror, 1967). Dror has been drawn into this by the tendency of some writers to see both analyses to be either synonymous or to have a close functional inter-relationship. Writers in this group have usually fallen back on Easton's systems analysis for the study of their subject matter. Hence, Dye, Sharkansky, Peters, Jenkins, all serious students of public policy, has each developed a variety of the systems model for policy analysis. But Dror (1967) argues that there are inherent weaknesses in the latter model which limit its utility for policy studies. They included (p.203):

1. strong attachment to and dependence on quantification;¹
2. pretence at value neutrality;
3. demands for clear-cut criteria of decision and well defined mission;

1. Vickers (1981) has similarly acknowledged the overwhelming usefulness of the systems model in studies connected with governance barring its limitation of a mathematical bias. He writes:

As a tool for solving problems which can be specified in mathematical terms, systems modelling is an important contribution to the tool subjects of those responsible for governance, though a limited one because of its limitation to situations which can be mathematically modelled. As a contribution to human understanding systems thinking is an immeasurable boon and need for every individual now living in our independent and unstable world (p.28).

It has been argued at the end of this chapter that the systems model is flexible enough to accommodate fully a qualitative use.

4. neglect of problems of political feasibility and the special characteristics of political resources;
5. too much emphasis on rationality; and
6. broad generalizations regarding human motivations and hence the inability to take account of individual motivations and even irrational behaviour as well as the peculiarities of the individual actors in the public policy arena.

Dror insists that systems analysis must be seen only as 'one of the basis of a broader professional discipline of policy analysis'. Thus properly conceived policy analysis should be seen as an inter-discipline synthetically blending together political science and public administration on the one hand, and systems analysis, decision theory and economic theory, on the other. Dror would, therefore, argue that policy analysis as a concept and as an activity is much broader than systems analysis. This and the other striking differences between the two which occur to him, is what Dror has taken pains to point out in his compare-and-contrast approach and this chapter draws on this approach.

First, in policy analysis, attention and indeed emphasis should be given to the political aspects of policy. This is either ignored or subordinated to the economic aspect in the use of systems analysis for policy studies because, it is often argued, economics offers a more scientific approach (Dror, 1967). But policy studies may very well be scientific as well as subjective, depending on the particular focus of the student. Public policy has singularly been conceived differently in this way. Anderson (1978 : 20) argues that to some students public policy is pure science seeking to explain the product of government or 'to comprehend the nature and dynamics of government through an examination of its products'. Other students, on the other hand, see their task as 'building a more positive recommendatory political science with greater relevance to the problems of public choice or social criticism'. In the latter case, as Anderson emphasizes, policy studies become a normative exercise concerned with the understanding of how policy evaluation is made as well as making evaluation itself. This precisely is Dror's position on the relation.

ship between policy analysis and politics. He argues (1967) that policy analysis must squarely deal with the problem of political feasibility, recruitment of support, accommodation of contradictory goals, and recognition of diversity of values. Dror is in fact categorical in proposing that models should be specifically constructed [for public policy analysis]¹ whose variables derive from the special characteristics of politics and political behaviour.²

1. My parenthesis.

2. We should be reminded here about the age long scepticism in certain quarters about the claims of the study of society to a scientific status. The sceptics argue that the said study 'cannot' satisfy the criteria (especially facts or what may be called factualism, quantification and measurements and hence predictability) which have distinguished the study of the physical world as a science. They have also argued that the so-called social science is full of subjective judgements, which they would say are seriously detested in the scientific method. It should be noted, however, that proponents of the science of society have acknowledged that there are differences between theirs and the other science (Lerner & Merton, 1951; Winch, 1958; Rayon, 1973; Strauch, 1976) but these differences, they have protested, are only of degree and for that matter up to a point. Beyond a certain point, physical scientists may themselves be drawn into contentious arguments in which each scientist is making a subjective judgement. Thus nuclear physics, the behaviour of individual cells, are only two examples of the many contentious areas of the physical sciences. Both sciences on the other hand are unavoidably about facts, except that social facts like the society which produces them are dynamic and may easily change with time and context as opposed to the static fact of, say, the units of which substances are made. Commenting on the relationship between politics and science, Brewer (1981) has suggested that analysis provides a point of convergence between the two. He argues that there are 'conceptual and practical differences of intent and application that characterize politics and science as professions and processes', and that these differences are of a magnitude which, 'render interaction between them problematic'. He, therefore, proposes analysis as a third alternative, an alternative not of a completely novel type but of a kind which blends what seemingly are polar extremes - science and politics - in what he calls the 'paradigms of analytic purposes and uses'.

Second, and following from the above argument is this: that attention should be given to the qualitative aspects of policy as opposed to the quantitative aspects which are sought in such methods as cost-benefit analysis and other mathematically oriented models used in policy analysis. Wildavsky's emphasis (1979 pp.18,389) on the cultural implications of policy analysis joins in arguing that recognition and importance should be accorded to the qualitative aspects of policy analysis.

Policy analysis is about.....culture: what combination of social interaction and intellectual cogitation, planning and politics leads us to figure out what we should want to do and how to do it.....Analysis teaches us not only how to get what we want, because that may be unobtainable or undesirable, but what we ought to want compared to what others are to give us in return for what we are prepared to give them....

It is further argued that the very definition of culture (as values and beliefs that bind social inter-relationships) inevitably brings policy analysis into that phenomenon in such a close inter-dependence that conjures a causal cycle because (Wildavsky, 1979 : 396):

1. solutions to policy problems reflect and are limited by the moral consistency of historical social inter-relationships;
2. solution to policy problems by changing the structure of social inter-relationships alters the values and beliefs that support the social structure.

There is, it seems, validity in the argument craving an honoured place for subjectivity in public policy analysis. It was argued in Chapter One, we are reminded, that the qualitative nature of public policy accounts for much of its distinctiveness when compared with the policies of the private sector. This will be supported by Dror (1967) who suggests that not all [public]¹ decision-making are resource allocation hence 'many types of critical decisions cannot be approached from an economic resource allocation framework'. What all these amount to is that policymaking and its analysis leans more to politics than any of the other variables of social life.

Third, policy analysis is highly dynamic. Its emphasis should accordingly be on creativity and the search for new policy alternatives, 'with explicit attention to innovative thinking'. Mesthene (Denny ed., 1967 : 90) shares this view. He contends that the job of policy today is to 'pace change,

1. My parenthesis.

to anticipate it and to order it'.¹ Systems analysis, on the other hand, is seen to have a conservative bias. Its method tends to narrow the search for alternatives since a given policy issue circulates in the systems flow and can at best only regenerate itself or create identical policy issues in the process of this flow. This is the function of the feedback activity in the systems model.²

Fourth, policy analysis requires 'futuristic thinking'. The background of current policies must be projected into a fairly distant future. This calls, as Dror argues, for special qualities for the analyst and special methods and tools of analysis. It 'involves imaginative thinking, systematic integration of trained intuition into policy analysis, [and the] development of qualitative tools...'.³ The requirement for long range projections in policy analysis, Dror concludes may tolerate of speculative thinking on the future. Wildavsky (1979 : 39) has seen the temporal dimension of policy analysis even more broadly. To him, the past, the present and the future are all equally important to the policy analyst:

[Policy] analysis aims to bring information to bear on current decisions that do have future consequences. Taking these consequences into account is the soul of all analysis.... Analysis uses the legacy of the past to make manageable the present, for creating a future is immensely more difficult when one must invent a past simultaneously.

Wildavsky's suggestion, explicit in the above quotation that policy analysis when related to time must be seen as a continuous process, seems a valid point. After all, time has no intrinsic meaning of its own. It is merely an endless flow of geo-social phenomena and mechanisms that we ourselves have arbitrarily demarcated into the past, present, and future; and so long as policy analysis is about these phenomena and mechanisms, it necessarily must flow endlessly with them. Hogwood and Peters (1982) have argued that

-
1. The dynamic character of policy analysis introduces an uneasiness between itself and organizations as they both move in the opposite directions. Policy analysis 'seeks out error and promotes change and organizations seek stability and promote their current activities' (Wildavsky, 1979 :36). Wildavsky argues further that analysis has frequently been rejected by the organizations for which it is intended because while they (organizations) are inherently bureaucratic the policies recommended through analysis are anti-bureaucratic.
 2. It will be argued later that this is only one of the multifarious and multi-functional attributes of the systems model.
 3. Metaphor construction, scenarios and counterfactual thinking are suggested.

'policy termination' is a redundant concept because policy termination leads to policy succession. It can be inferred from this that the analyst never sees the end of the policy he is analysing. At the end of his task he should find either that the policy he has analysed is continuing or that it has been succeeded by a (new) policy or a (new) generation of policies serving the same goal. m

The above discussion stresses the intimate relationship between public policy analysis and politics. The policy analyst sets out for 'a rather fundamental reconceptualization of politics' (Anderson, 1978 : 20). His task in Anderson's sense can best be described as normatively epistemological. He seeks to know how the logic of policy evaluation operates so as to aid the understanding of 'the structured system of discourse within which and between which political evaluation takes place....the logic of policy evaluation entails standards of how to judge and criticize policy-making performance' (1978 : 20). Floden and Weiner (1978 : 16) have similarly suggested that policy evaluation does not only act as a means of managing conflicts and promoting social change, it may as well be viewed as 'a societal ritual whose function is to calm the anxieties of the citizenry and to perpetuate an image of government's rationality....'. The policy analyst is advised therefore not to make a pretence at a value free study. Rather he should accept the ideological nature of his enterprise not in the mean sense of enthroneing idiosyncracies but in the practical sense of recognizing the complex and dialetical nature of social life which he should simplify and pacify through his analysis and recommendations. Kramer (1975: 509-17) elevates this argument to the prevailing paradigms of the social sciences, in which sense, as he argues, ideology makes our complex world simpler and more understandable.

The clarification of the nature and concerns of policy analysis discussed so far should facilitate an exposition of the goals of policy analysis which is now undertaken. The aim is to state briefly why the study of public policy is considered a worthwhile enterprise to embark upon. We hinted on this earlier, when it was stated that the analysis of public policy may lead to a 'reconceptualization of politics as well as building a more positive recommendatory political science'. What this amounts to is that public policy may be analysed for academic or intellectual reasons. Its purpose in this case is to expand the domain of its mother discipline, political science. At a more general level still, public policy may be analysed for reasons of policy advocacy or policy exploration. A student who sets out to advocate

policy tries to show through his analysis that certain policies or a particular policy would be a better choice or choices from the available options. The skills which a policy advocate should possess are 'rhetoric, persuasion, organization and activism' (Dye, 1978:7). When students set out on the other hand to study the underlying reasons for the actions of government, they are engaged in policy exploration. Here, by using the tools of systematic inquiry, they seek to attack critical issues of public policy. They are concerned with (Dye, 1978 :7-8).

1. explanation rather than prescription;
2. a search for causes and consequences of public policy;
3. developing and testing general propositions about the causes and consequences of public policy and accumulating research findings of general relevance.

We may come down from the general reasons for public policy analysis to the more specific reasons for doing so. Again Dye (1978:5-7) suggests three such reasons:

First, public policy may be analysed for scientific reasons. The aim of policy studies in this case is to improve our knowledge of society through understanding the causes and consequences of policy decision. For this purpose, it is often necessary to make a distinction between public policy as a dependent variable and public policy as an independent variable. As a dependent variable, the student wishes to establish the environmental forces and political system's characteristics which determine the content of public policy and the direction (i.e. the manner in which public policy distributes rewards) in which it moves. Such questions as, 'whose interests are served?, who has had more say?', and so on, are asked. When we study public policy as an independent variable we are looking for the impact which it makes on the environment and political system's characteristics. The analysis here works backwards from given characteristics of the political system to the public policy which engender them. Thus the scientific student of public policy seeks to develop causal links between political system's characteristics and the environment in the attempt to present a clear picture of how public policy through the political system authoritatively allocates values for the society.

Second, public policy may be analysed for professional reasons. The professional analyst of public policy attempts to offer solutions to practical problems by applying the knowledge of the social sciences. Here an end-means approach is used to relate specific policies (means) to specific societal goals (ends) and the analyst is thus able to offer professional advice to policymakers. Dror (1967) has in this regard proposed a new professional role in government service for policy analysts. As he argues, 'policy analysis should become a new professional role in government, operating within the political and organizational setting as a new component which contributes to aggregate policymaking without pre-empting in any way the functions of politicians and line executives'. We are reminded here of the attempts made in some countries to institutionalize policy analysis within the machinery of government. In Britain this has been done through PAR (Programme Analysis and Review) and the CPRS (Central Policy Review Staff). The American examples would include the ill-fated PPBS (Planning, Programming and Budgeting) and the Budget Bureau. In Nigeria the Executive Office of the President has a Budget and Economic Advice divisions, a Political Advice division, and a division for monitoring the implementation of government policies and even more importantly perhaps, is the opening of an institution, The Institute of Policy and Strategic Studies, to train public officials in a systematic approach to policymaking. It has even been contended that analysis is an established tradition in public decisionmaking firstly, because there is a standard routine for reaching a policy decision in all governments; and secondly, because policymaking involves, inevitably, gathering and analysing facts which is done with 'at least implicit theory' (Lindblom, 1968 : 6). Lindblom argues, therefore, that 'if analysis is often hurried and sometimes superficial in public policymaking¹ it is never wholly absent...'.

Third, policy analysis may be undertaken for political reasons. The analyst may try to discover the congruence between the ideology of the ruling party and the policies of the government.² In particular, he may try to show the relationship between electoral promises (which are often exaggerated to maximize a party's electoral fortunes), and the current policies of government which when based on the social, economic and political realities of a given point in time may diverge from the wishful thinking of politicians.

1. My emphasis.

2. This has been done at length in Chapter 7 in respect of NPN, the ruling party for some aspects of Nigeria's economic policies in general and its industrialization policy especially.

Another political reason for analysing public policy may be to show where the current policies of a government are leading to. Policy analysis here attracts as much journalistic interests as it does academic.

The main motivations for the present study may be traced to the first reason stated above. The study aims to improve our knowledge and understanding of the causes and consequences of industrialization policy in Nigeria. It treats that policy as a dependent variable and seeks to establish the environmental forces (especially the political, social and economic) within and without Nigeria which have determined the content and direction of the country's industrialization policy, and which also may have either positively or negatively affected the achievement of the goals and objectives of this policy as a whole or part thereof.

We turn in the following section to the use of models in policy studies. The intention is to define models, to state the functions which they perform in the social sciences generally and policy analysis in particular, and then to describe the nature and dynamics of the models which may be used in public policy analysis.

According to Meadows (1957 : 3-9), 'the construction of a model consists in conceptually marking off a perceptual complex. It involves... replacing part or parts of a complex by some representation or symbols', hence, 'every model is a pattern of symbols, rules, and processes regarded as matching, in part or in totality an existing perceptual complex'. Models are, therefore, 'devices by which a system can be shown to be consistent, or at any rate, as consistent as some other system which it serves as an interpretation for...'

Beshers (1957 : 32-38) states that 'in any research project a model is the set of assumptions or postulates not being directly tested'. This view reflects Kaplan's (1964 : 263) widely quoted definition of models in which he states that '....any system A is a model of a system B if the study of A is useful for the understanding of B without regard to any direct or indirect causal connection between A and B.the systems must therefore resemble one another as systems, i.e. in ways which do not depend on the particular elements of which each consists or else we would need to know just how elements of these particular kinds affect one another'. Kaplan's definition agrees with the generally held view of models as devices for simplifying reality. They are microcosms of something much larger and complex, hence students find them handy in making complex data systematic

and more understandable. This has been widely included among the functions of models (ibid., 268). What then are their other functions? Meadows (1957) observes that models perform two principal functions:

First, they enable us to organize our data and to communicate scientific ideas, for 'science is a co-operative and communicative enterprise in which through corroboration among those engaged in it, it is progressively built'. By enabling students to distinguish between definitions and propositions, models facilitate the ordering and simplification of the relationships among concepts (Kaplan, 1964 : 270).¹

Secondly, because of their enormous deductive value, models make our data elastic; we can squeeze 'a great deal of content not otherwise available', from our data.

For purposes of policy research, models have specific use. Dye (Sharkansky ed., 1970) sees models of particular use in portraying policy outcomes and the forces which shape them. Using the systems model as an example, he presents policy outcomes as the result of forces brought to bear upon a system and causing it to make particular responses. A model for the explanation of policy outcomes, he argues, may describe the relationship between socio-economic inputs (forces), political system characteristics (systems), and policy outcomes (responses). This example shows how models enable us to make generalizations about causes and consequences of public policy. Further models (Dye, 1978 : 19):

1. simplify and clarify our thinking about public policy;
2. help to identify important forces in society which shape public policy;
3. facilitate the communication of relevant knowledge about policy analysis;
4. may be used to suggest explanations for policy events and policy outcomes.

In order to illustrate how models perform the above functions in public policy analysis we will discuss a number of models which have been used in that analysis or in policy research generally.

1. For purposes of better communication it may be said that models have a stylistic value for students of social research. By using models they can avoid, it is suggested, expressions which otherwise distort the flow of their discussion and make the text of their work cumbersome. Among such expressions are, 'other things being equal', 'additionally' and so on. These expressions can be replaced with simple models. Postulational models, Meadows points out, are very serviceable here.

Models for Public Policy Analysis

Nowhere is the convergence between politics and public policy (as academic disciplines) closer than in their shared use of models. The reason for this is simple - public policy lacking models of its own relies on those developed in politics, making such minor adaptations as the substitution of relevant variables.¹ But models of politics employed in policy analysis have been very useful in establishing the causal interdependence among the variables of public policy (Dye). He has, accordingly, made a comprehensive survey of those models (1978 : 20-39),² and the discussion which follows is based on that survey.

Among the models which have been used in policy studies according to the above survey are institutionalism, games theory, systems analysis, group theory, elite theory, rationalism and incrementalism. We shall now examine them in turn and say how they may be applied in the analysis of industrialization policy in Nigeria where this is possible.

Institutional Models

These models present policy as institutional activity. Public policy is thus seen in relation to governmental institutions - the legislature, the executive, the judiciary, constitutions, political parties, interest groups, and so on; all institutions of the political system which either individually or in their interaction determine the direction and content of public policy. We may for example explore whose interests are enhanced by a particular policy by studying the institutions (especially interest groups and political parties) which have shown particular interests in the policy (see Chapter 1).³ Institutional perspectives may also be employed in studying the decentralization of power over policymaking in a state. For example how is responsibility for urban development shared among the various tiers of government. This can be done for many other policy areas like education, law and order and national

-
1. This description is true of the systems model and a look at policy studies based on that model leaves no doubt about this.
 2. His survey borrows from an earlier one made by Anderson (1975). This survey of types of models has been adopted in order to illustrate a major proposition stipulated in this study; that systems theory is an all-inclusive model which embraces the characteristics of the other models commonly used in policy analysis. The survey, it will be seen, covers these models.
 3. In addition to the discussion about this contained there, i.e. Chapter One, a more detailed discussion is presented in Chapter Seven about how the NPN functions as an institution to enhance and protect the economic interests of its leading members by influencing economic policies. It is noted there that other political parties similarly engage in the same thing but to a much lesser extent.

health. But to cite a more relevant example to our immediate concern one might want to know how responsibility for a country's economic policy is shared between the central government and its subordinate units. If we were to do this for Nigeria's industrialization policy, the obvious conclusion which the empirical evidence amassed in this thesis would support is that the policy is largely a matter for the Federal Government. Even more importantly is the fact that the implementation of industrialization policy in the country has had a very high element of institutional approach. As will be seen in the empirical chapters, the implementation of each strategy considered has been sought through a multitude of institutions. The activities of these institutions form a large part of the analyses and discussions contained in those chapters.

Group Models

Group models present public policy as group equilibrium. Their propositions stipulate that interaction among groups is the central fact of politics, hence politics 'is the struggle among groups to influence public policy'. The political system plays the role of an arbiter in the group conflict and it does so by one or other of the following means:

1. by establishing rules of the game to be followed in the conflict;
2. by arranging compromises and balancing interests;
3. by enacting compromises in the form of public policy; and
4. by enforcing these compromises.

To the group theorist public policy is the equilibrium reached in the group struggle and the equilibrium is determined by the relative influence of the contending groups. The amount of influence accruing to each group varies and there is a deterministic relationship between the amount of influence of a group and the direction in which public policy moves. As Latham (1956) argues, 'what may be called public policy is actually the equilibrium reached in the group struggle at any given moment, and it represents a balance which the contending factions or groups constantly strive to tip in their favour'. (cited, Dye, 1978 : 24). Group pressures are constantly put on policymakers by contending groups and they respond to these pressures through bargaining, negotiating and compromising. Other equilibrating forces which mediate in

these pressures include:

1. Constitutionalism - a phenomenon in which the rules of the game are provided in a manner which inspire legitimacy and commands obedience. There may also be groups which are committed to upholding the rules of the game. The judiciary, however, serves as the formal referee to ensure that the rules are kept.
2. Overlapping Group Membership - this moderates the demands which a group makes on its members and other groups conscious of the fact that certain demands, if made on its members may offend the other groups to which they belong or that certain demands if made on other groups may offend its members which belong to those groups.
3. Checks and Balances resulting from Group Competition - there exist countervailing centres of power which keep the powers of every group in check and/or balance them against those of other groups in the society. The political resources of money, education, family connection, the press and mass following are rarely cumulative. Quite often they lie in different centres. Dahl's influential study in Who Governs? (1961) has been widely acknowledged as a classic in this pluralist argument.

Elite Theory¹

The prototype of this model is provided in the 'Iron Law of Oligarchy',² hence Dye's summary of the elite theory reflects much of Michels characterization of politics in his Political Parties (1962):

1. Society is divided into the few who have power and the many who do not. Only a small number of persons allocate values for society; the masses do not decide public policy - the medium through which societal values are allocated.
2. The movement of non-elites to elite positions must be slow and continuous to maintain stability and avoid revolution. Only nonelites who have accepted the basic elite consensus can be admitted to governing circles.
3. Elites share consensus on behalf of the basic values of the social system and the preservation of the system.
4. Public policy does not reflect the demands of the masses but rather the prevailing values of the elite. Changes in public policy will be incremental rather than revolutionary.

-
1. The outline presented here was originally formulated in Dye and Zeigler (1970).
 2. Michels' Political Parties is a counterpoise to Who Governs both in terms of influence and in its central argument. Unlike Dahl who argues that political resources and the political influence that goes with them are widely dispersed in society, Michels argues that these will always tend to reside with a handful of people at a time; and this group is maintained through a process of recruitment and socialization which ensure that only those with compatible values join and interact with its members.

5. Active elites are subject to relatively little direct influence from apathetic masses; elites influence masses more than masses influence elites.

The elite theory has important implications for public policy. (Some of them have been noted along with the characteristics of the theory above.) The following are its other implications:

1. Public policy is disjointed with the demands of the masses; it changes only in response to redefinitions compatible with elite values.
2. Masses have only indirect influence on the decision-making behaviour of the elites.
3. There is an asymmetrical flow of influence between the governing elite and the governed masses. Public policy is, therefore, authoritarian in its formulation and implementation.

Rationalism

The rationalist analyst conceives of policy as efficient goal achievement, with efficiency defined as 'the calculation of all social, political and economic values sacrificed or achieved by a public policy...'. Reviewing available definitions of rationality, Carley (1980) argues that they all present it (rationality) as a 'consistent value-maximising choice given certain constraint'. This he calls analytic rationality and is embodied as he suggests in rational analysis (p.11). To select a rational policy, therefore, the policymaker must:

1. Know all the society's value preferences and their relative weights;
2. know all the policy alternatives available;
3. know all the consequences of each policy alternative;
4. calculate the ratio of achieved to sacrificed social values for each policy alternative;
5. select the most efficient policy alternative.

Rational policymaking as the above processes show demands more than is commonly within the capacity of anyone policymaker or the group of policymakers that may be involved in any one policy - the ability to know and weigh the value preferences of society as a whole, the ability to acquire and organize information about all alternative policies, the predictive capacity to foresee accurately the consequences of alternative policies and, the

intelligence required to calculate correctly the ratio of costs and benefits of each alternative policy; all demands which the rationalist policymaker must meet,¹ are definitely beyond the reach of those who are commonly charged with policymaking, hence orthodox rationalist models are never used in that activity. But if rational policymaking is impossible, is rational policy analysis possible? Carley's definition cited above argues that the answer should be 'yes'. The functional word in that definition is 'choice', hence rational analysis (Williams, 1972) is 'to assist choice', rather than, 'to make choice, ... to justify past choice, [or] to delay matters so that some previously chosen course of action has a greater chance of adaptation' (cited, Carley, 1980 : 31). Carley, therefore, suggests that rational analysis is of great value in its role as an aid to choice and could, therefore, be of immense use to the policy analyst in (pp.32-3):

1. promoting a systematic, orderly approach to the study of policy problems;
2. assisting in problem definition, or locating a decision space;²
3. assisting in satisfying the information needs of all the parties to a policy decision;
4. providing a means for measuring efficiency;
5. promoting explicitness in presentation of data basic to a problem and in causal linkages and transformations postulated in the analysis.

Incrementalism

The incrementalist model sees policy as variations on the past. Associated with Charles Lindblom, public policy, when defined from an incrementalist perspective, is the continuation of past government activities. Its proponents argue that constraints of time, intelligence, energy, and money make the rational procedure infeasible for policymaking. In addition constraints of politics makes societal goals nebulous to the degree in which the calculation of cost-benefit ratios for the society as a whole becomes an impossible task. The incrementalists, therefore, seek to offer an outlet

-
1. Thus rational analysis has been criticised for its comprehensiveness and its presumption of the possibility of reaching a general agreement by the society on the preferential ranking of alternative strategies (Gershuny : 1978).
 2. A decision space for Carley is the line encircling the influences and effects considered relevant to a given policy problem, and this line must be drawn as the starting point of any policy analysis as only then does the problem become isolated and manageable.

from this tangle of difficulties presented, in their view, by the rational model. They (the incrementalists) would start from existing policies and programmes as a base, adding to it only compatible programmes and policies. Incrementalism may tolerate of modifications in existing programmes such as expansion or contraction of programme content.

The industrialization strategies analysed in later chapters, as hinted before, have strong incremental tendencies. As we shall see, both the institutions implementing the strategies and the programme content of the strategies themselves have tended to retain the major characteristics of their predecessors making only the most essential modifications which can be very marginal at times.

There are arguments by which incremental policymaking have been commended as against rationalism. The following are outstanding:

1. The constraints on rationalism noted above.
2. Uncertainty about the consequences of new policies, since such consequences cannot be predicted. Policymakers are, therefore, content to keep to the moderate positive results offered by on-going policies, which is definite, as against even a 50-50 chance of terrific successes or woeful failures offered by new policies.
3. Heavy investment in existing programmes which it will be economic wastes to abandon. Also individuals may develop personal stakes in the continuation of a programme or practices. In this situation only those policy alternatives 'which cause little physical, economic, organizational and administrative dislocation', are considered.
4. There is a positive correlation between incrementalism and stability. Incrementalism as it is argued reduces conflicts, maintains stability and therefore preserves the political system. The disagreements which often stem out of new policies may be potentially explosive especially when the policies are about matters which have high elements of uncertainty; but tranquility is a darling of the public policymaker.
5. The conservative bias in human attitudes towards changes favours incremental public policymaking, since human beings, as it is often said, are by nature conservative. They do not, as the argument goes, act to maximise their values; nor do they like the 'Taylorist' search for 'the one best way'. Rather, they search only for 'a way that will work'

and are satisfied once this is found. In searching for a way that will work, human beings, and policymakers are humans, start from the way they already know. This will be the same thing as saying, in terms of policymaking, that existing policies should be the starting point of any new policies.

6. The Absence of a Unitary Societal Value. The underlying fact to this argument is that societal values and goals are difficult to agree on. We do not therefore have a single societal value and goal but instead a variegated system of values and goals whose complexity varies directly with the diversity of the society itself. Pluralism highly commends incremental policymaking.

The incrementalist model is not without its objections: it is conservative, reinforcing inertia by offering only short term remedial changes; it is unjust, in accepting whatever decisions manage to gain prominence since these are most likely to be the decisions of the most powerful in society; and it is costly, failing to explore radical alternatives to existing policies which may have enormous long run resource gains (Smith and May, 1980). These authors argue that if rationalist models are empirically inaccurate and unrealistic incrementalist models are normatively useless. Incrementalism may not be applicable at all in circumstances where the problem at hand has no past or when the result of past policies has been unsatisfactory (Dror, 1968 : 145). In circumstances such as these, innovative policies would be the only option. For purposes of policy analysis Dror (1968 : 145), warns that the existence of social and, one might add, economic forces 'that create a predisposition towards incremental change model', makes it the more imperative that the model should be used with care for its uncritical use here will only be 'a "scientific" rationalization for inertia and conservatism, [which] can easily prove itself through self-fulfilling prophecy, and thus block essential improvements' in public policymaking and its analysis. To be beneficially applied to the latter the analyst, when using the incrementalist model must guide against the following (Dror, 1968 : 145):

1. The degree to which the results of past policies are considered satisfactory;
2. changes in the nature of the problem; and
3. the amount of innovation in the available alternatives.

Games Model

This model attempts to study rational decisions in situations in which two or more participants have choices to make and in which the outcome depends on the choices made by each of them. Games model is characteristically zero-sum; one participant gains exactly to the extent that the other participant loses. The model has been called 'an abstract and deductive model of policymaking' (Dye, 1978 : 35). It describes how people will go about making decisions in competitive situations if they were completely rational, but herein lies its limitations; the same difficulties which were noted for the rationalistic models above will also apply to this one. It nevertheless serves as a useful device for dealing with policymaking in conflict situations, hence it is particularly useful in the analysis of foreign policy, international diplomacy and war. In the sphere of economic policy games theory may be useful for analysing ministerial scramble for budgetary resources or for a slice in new programme - territory. In the present work, games theory has only been incidentally referrent as it was not possible to get access to documents relating to the haggling process through which resources have been procured for public sector industrial programmes. However, the games theory will ring in our minds when we see in Chapter Four how the manufacturing programme of government has grown relative to its other programmes in the allocation of resources made through the development plans.

One other approach to policy analysis which it will be necessary to consider, but has been left out of Dye's survey is the case-study method. Hecló (1972:83-108) in a review article has discussed this approach thoroughly and we have based the discussion which follows on that article.

Case Study in Policy Research

Case study found its way into the vocabulary of social research from clinical psychology and medical research where it is meant to be 'an observation designed to use selected data rather than merely whatever data is obtained' (Hecló, 1972). Political science [and public policy] borrowing a leaf from the natural science in this regard, has used observations derived from case studies 'to test operational deductions from its theoretical hypotheses' (Hecló : 1972). However, the greatest motivation for the use of case studies in public administration and public policy has been rather instructional and are intended to give students deeper insight into the practical dynamics of selected policy issues - public revenue, urban studies, programme implementation and social policy of all kinds; for example, housing. Much as they have

been useful for instructional purposes there has been a noticeable poverty of the growth of theories from policy case studies.¹ Hecllo suggests that the situation has not been thought about because the growth of such a theory is impossible. Instead it has been caused by the assumption that a collection of case studies once they reach a certain 'critical mass' will find little difficulty in evolving into a theory. This has not happened in Britain and America, Hecllo stipulates, where there has been a substantial collection of case studies in public policy. He, therefore, points to the danger that policy case studies might degenerate into a mere 'recount of historical events or episodic narrative'. If this were to happen then, the study of public policy far from assuming a scientific posture which we said is possible will become an intuitive description of intuitively selected acts of governments and their repercussions. James Rosenau's 'Moral Fervor, Systematic Analysis and Scientific Consciousness', (1968) is cited to show that this has happened in at least the case studies of foreign policy-making. Hecllo did not, however, lose sight of the attempt made since the 1960s to distinguish policy case studies by 'their theoretical perspectives' in, for example, Dahl's Who Governs (1961) and Bauer et al.'s American Business and Public Policy (1963). If we broaden the scope to include the under-developed countries then many works can be cited which, even though have not generated new theories, have nevertheless been used to explain existing theories in the area of development policy and economic policymaking. We might recall here the many articles on Tanzania which have attempted to use case studies in that country to explain socialist approaches to development policy in the under-developed world. Nellis (1972) among others has produced a whole volume using the Tanzanian example to explain what he calls 'A Theory of Ideology'. On the other hand, we have in the process of this research come across a number of works which seek to explain the capitalist nature of Nigeria's economic policymaking. Nafziger's African Capitalism : A case Study in Nigerian Entrepreneurship (1977), and Schatz's Nigerian Capitalism (1977) have argued that economic policies in Nigeria are tilted in favour of the business elites who have much in common (commitment to private ownership, consumption habits, education, membership of the

1. Lowi (1964) suggests that even if such theories were to emerge they will be very limited in their generalizations because 'the broad-gauged theories of politics are not related, perhaps are not relateable to observable cases'. He noted specifically that American political science had been characterized by 'a continuing fission of theory and research, in which the empiricist is not sufficiently mindful of his role as a system-builder and the system-builder is not sufficiently mindful (if at all) of the role that theory is supposed to play'.

same political party) with the policymakers themselves. These commonalities have been strengthened since Nafizger and Schatz wrote, especially in respect of education, as more and more highly qualified Nigerians have preferred to establish businesses of their own rather than take up paid employment. Some of these categories of Nigerian businessmen have relied almost entirely on their former University contemporaries now occupying high positions in governments, as Ministers, Commissioners or Permanent Secretaries, for their business patronage. This argument is developed fully in Chapter 7 with reference to a lot more works which have attempted to establish a relationship between public policy and class formation in Nigeria. Within policy studies itself, Grindle (ed.) Politics and Policy implementation in the Third World (1980), to which reference was made before has sought to explain the theories of policymaking through the case studies of policy implementation in the developing countries.

We may put the question of the theory relevance of policy case-studies aside for the time being and discuss their value for policy analysis. Two examples which have also been reflected in this study will be mentioned briefly.

First, policy case-studies enable policy analysts to trace changes in decisions and actions relating to a particular issue through time and therefore sustain the conception of policy as 'a moving course of action or inaction rather than a discrete decision, enactment, or program administered at a moment in time' (Heclo, 1972) or as we have said, of policy analysis as an activity which is continuous with time (see p.35 above). In this study industrialization policy has been presented as a series of decisions, and a collection of interdependent programmes and strategies interacting through time and space. This presentation is based on the data which the Nigerian case study being undertaken here has yielded. This means that we have been able through a case study to show the aggregate of decisions and programmes which constitute an ongoing policy.

Second, policy case-studies among others 'can integrate existing historical studies, secondary sources and aggregate quantitative data' Again the approach used in amassing the data for this study corresponds very closely with this proposition and will be evident in the empirical chapters.

In the foregoing discussion, we have been mainly concerned with giving an account of the models used in policy studies generally. It will be advisable to follow this with more specific comments on the use of models in public policy analysis. Particular reference will be made to their positive contributions here and the problems confronted in their use.

We have already noted the ability of models to capture the relationship between policy outcomes and the forces which shape them. A model of policy outcome may yield hypothesis about the possible results of a given public policy when it is pursued under varying circumstances. Such a hypothesis can then be tested against data derived from empirical research (Dye; Sharkansky ed.1970). This will be yet another instance of an attempt at the scientific study of public policy; involving as we have seen, model construction, the formulation of hypothesis, empirical research and the testing of hypothesis. A policy model may be of aid in the design of public policy research. To do so the model must among others possess the following attributes (Dye; Sharkansky ed., 1970: 22).

1. It should point to where to look for explanation of public policy and suggest conditions under which we should expect to observe policy outcomes.
2. It should contain propositions about politics and public policy which can be directly tested in policy research.
3. It should enable us to develop propositions and make predictions that, at least, come close to approximate reality.

The utility of models in policy analysis depends a great deal on the specific nature of the model. An empirical model, for example, may help explain public policy but a normative one only guides it. Thus, an empirical model may seek to identify the major determinants of public policy choices as opposed to normative models which express the relationship between end-values and a particular course of public action (Dye,1970). When we turn to comparative policy analysis, we see yet other purposes which models may serve in public policy studies. Anderson (1978) argues that the object of comparative analysis of models of evaluation employed in policymaking is to help us understand an interesting political phenomenon, make predictive statements about how the system works and engage in criticism, classification and normative commentary on the way in which political judgements are in fact made in our societies (p.40). Henry Tune (Ashford ed.,1978:45) has been

concerned with the use of models in cross policy research where, if constructed out of a policy problem, they can be used to map out an 'if...then' relationship and thus help in making predictions about policy impact. It is suggested (Tune, 1978:45) that a model of urban decay may be constructed in this manner to chart the relationship between government expenditure, taxes and migration of the poor to the suburbs. Such a model should contain the following variables (Tune, 1978): tax base, the costs of welfare, the incentives of the poor to migrate and so on. It should be possible to construct models along this line for unemployment, urban violence and regional depression. Similarly, a model of industrial progress may be constructed to show the relationship between a government's technological programmes, its manpower development programmes and its industrial investments. Although we have not formally constructed such a model in this study for lack of time and resources the inferences and conclusions drawn from the analysis of empirical data are very similar to those which the model would yield; and this should serve as a basis for further work in that direction.

Despite the many useful purposes which models serve in policy research and policy analysis there are problems associated with their use. We saw that models are particularly useful for policy analysis when they are constructed out of a policy problem, but as we said in Chapter one what constitutes a policy problem is difficult to define in the first place. This is because they (the policy problems) do not exist as a unit. People may perceive the same problem differently and the researcher has to 'establish the pattern of the distribution of perceptions of the problem held by various actors in the system of action' (Bauer, eds. 1968 : 16), and this may be a very difficult task. As Bauer warns, policy problems are complex and social and it may be impossible and even undesirable to approach individual policy decisions without regard for the wide range of issues which impinge on it. He, therefore, suggests 'the envelope of issues', to refer to those events and issues that must be considered as the context within which to analyse a given policy problem. For Tune (1978) models constructed out of policy problems are problematic for two reasons, which may be summarized as follows:

1. Goods for public policy are linked to material and allocable goods and are individualized, yet non-material and social goods like respect and esteem may be the substantive issue of public policy in their own right or may subtly underlie what seemly are material goods.

2. There is the dilemma of the level of complexity or simplicity of problem-derived policy models. The one undermines understanding, the other undermines accuracy.

Comparative policy analysis has its own set of problems too. They are the same as the problems of cross-national studies faced in comparative politics and comparative public administration. The specific difficulty for public policy analysis is that different countries may locate the same problem 'in distinct frameworks of policy reasoning', with the result that, 'different nations may produce distinctive responses to seemingly similar problems because they locate the problem in different realms of policy discourse' (Anderson, 1978 : 26).

At a more general level, Dye (1978 : 14-16) has noted the following problems in policy research, some of them true of other social sciences. They include:

1. The problem of Weighting : What weight should the student of policy give to the multitude of forces which shape government policies? The tendency is that important environmental forces - wealth, technology, demography, patterns of family life, religion, epidemics, climate and many others - which shape the policies of government may either be underestimated or glossed over completely. They may also be over-estimated as in the preference of incrementalism in policymaking pointed out above.
2. The Absence of a Common Denominator for Social Problems: It was argued above that it is difficult to define social problems in terms acceptable to everybody concerned because of differences in perspectives. What is emphasized here is that these differences may be based on such ingrained factors as culture, religious and political beliefs which are difficult to change. This should provide a deeper insight into why social problems defy unitarization and why in their congeries they present the policy analyst with a difficult task.
3. Subjectivity : The problem of subjectivity in social research has been stated over and over again. One way in which subjective judgements frequently manifest themselves in social research, and this is also true of policy studies, is that different interpretations may be given to the same data by different students.

4. Difficulty with Experimentation : Controlled experiments are difficult and often impossible for many social situations because human beings, the interacting variables in the experiment, may use their judgements to tilt the result in the direction they want. Also, many social phenomena cannot be replicated for experimental purposes. We cannot, for example, cause urban riots to study if we were researching into their causes. They come and go of their own accord, before the student of policy appears on the scene.
5. Difficulty in Prediction : This is due to the complexity of social problems on the one hand, and the dynamism of social processes on the other. Thus 'social scientists simply do not know enough about individual and group behaviour to be able to offer reliable advice to policymakers'

Policy analysis has indeed proved to be a difficult activity. Some people hold the view that the major source of this difficulty can be traced to the fact that each model of policy analysis has only a limited use. Jenkins (1978) argues that 'no one model can successfully encapsulate the policy arena. Rather, what the study of policy offers is a common subject matter which can be approached at different levels and through different disciplinary assumptions'. Dye makes the same point but from a different angle. He writes (1978 : 20):

Although some policies appear at first glance to lend themselves to explanation by one particular model, most policies are a combination of rational planning, incrementalism, interest group activity, elite preferences, systemic forces, competition and institutional influences.

If Dye is correct, then what we need to ease the problem of policy analysis is a model comprehensive enough to have the widest possible application to public policies of all kinds; which may differ greatly in their contents, contexts and their evolutionary process. Dryzek (1982 : 309-29) suggests that this should be the 'hermeneutic' model but the view is contested here. According to Dryzek the reason why existing models of policy analysis are limited in their applicability is because they have failed to satisfy the criteria necessary for a comprehensive analysis. These criteria are contextuality, problem orientation and the capacity to identify positive change. Only the hermeneutic model in Dryzek's view satisfies the above criteria and should be capable of a thorough and comprehensive application to the analysis of any public policy. Hermeneutic policy analysis is defined as 'the evaluation of existing conditions and the exploration of alternatives to them, in terms

of criteria derived from an understanding of possible better conditions, through an interchange between the frame of reference of the analyst and the actors. [Thus] the analyst must attempt to achieve an understanding of the practical problems and frame of reference of actors and policymakers, while simultaneously remaining capable of criticism of the practices in which the actors are engaged'. It seems that hermeneutic policy analysis as it is defined above, is a mixture only of the rational and the games models. But for a model of policy analysis to have the broad and comprehensive applicability claimed for hermeneutics it should have, as is evident from Dye's argument quoted above, the features of all the models commonly used in this task and it is strongly argued here that it is the systems model which possesses those features as it has been designed and applied to public policy analysis. For one thing the systems model satisfies Dryzek's criteria for a comprehensive applicability and more : it is contextual and problem oriented in making the environment of the political system the source of policy inputs and it has a capacity to identify and deal with the requirements for positive change through its feedback mechanism. The rest of this chapter is devoted to substantiating the argument regarding the all inclusiveness, and hence the broad applicability of the systems model to the analysis of public policy. We will take each of the models outlined in Dye's survey presented above and relate it to the systems model with the aid of the diagrams of the varieties of the latter model which have been formulated by public policy scholars for their analysis. These diagrams have been included as appendices at the end of the thesis.

The Institutional Model

This model, we said, conceives public policy as an institutional activity involving interaction among the various institutions of government. But the institutional activity involved in the systems model transcends governmental institutions to include other structures in the social system at varying degrees of institutionalization. They may be economic, cultural or sociological. The systems model is concerned with the total environment, including the temporal and ecological environments. (Appendices 1, 5, and 7).

Group Theory

Group theory presenting public policy as group equilibrium defines politics as 'the struggle among groups to influence public policy'. The systems model provides an arena for competition among groups - political

parties, and interest groups are particular examples. (Appendix 5).

The Elite Model

This model posits, we saw, that public policy is a reflection of elite preferences. This again does not depart from the systems tradition, which assigns important roles to the elites in the process of converting demands into outputs. The elites in the language of the systems model are referred to as 'the authorities' (Appendix 1). These authorities have an almost infinite opportunity to influence the content of public policy or the direction to which it must point. This was argued under the appropriate section above, and will be illustrated with the Nigerian policy process in Chapter 7.

Rationalism

That the systems model encompasses rational choice is shown by its provisions for 'gatekeepers' to process the raw input demands, articulating and aggregating them before they reach the political authorities for final conversion. Also the searching of the environment for information and resources which are activities leading to rational decisions, are all part of the features of the systems model (Appendices 1 and 5).

Incrementalism

The incrementalist model argues, it was shown, that public policy is a variation on the past government activity. The feedback loop of the systems model links ongoing policies with future ones (Appendices 1, 2, 3, 4, 5 and 7). By this loop new inputs which themselves stem from old ones (now converted into outputs) are continually being fed into the system to be processed into new outputs, to generate new inputs, and the process continues ad infinitum. The feedback loop may also serve as a means of coping with changes that might become necessary in ongoing policies.

The obvious inference that can be drawn from the above presentation is that the systems model will enable the policy analyst to deal at once with all the issues in the public policy arena which can only be dealt with one at a time by the other models. This is because the composite nature of the former model allows him to identify the relevant questions which need be asked about any particular public policy and therefore to determine whether they were asked by those who made the policy. Dye (1978 : 39) once more

provides some of these questions:

1. What are the significant dimensions of the environment that generate demands upon the political system?
2. What are the significant characteristics of the political system that enable it to transform demands into public policy and to preserve itself over time?
3. How do environmental inputs affect the character of the political system?
4. How do characteristics of the political system affect the content of public policy?
5. How does public policy affect, through feedback, the environment and the character of the political system?
6. How do environmental inputs affect the content of public policy?

We see in the above questions further evidence of the comprehensive applicability of the systems model to public policy analysis. We would at this point argue that Dror's castigation of the model which was presented at the beginning of this chapter is an over-simplification of the real nature of the model concerned. Dror seems to have ignored the flexibility of the model which makes it possible to use it both as a quantitative and qualitative tool of analysis and it is as a qualitative tool that it has been most frequently used in political and public policy analysis. Dror also tended to have taken some features of the systems model as given in his criticisms. But this model like all others, hides some of the essential characteristics of its own dynamics and of the subject matter it is explaining. This is acceptable for models are only heuristic in their use. It is the burden of the analyst to dissect the model being used beyond the muscles into the veins and the nerves to reach at whatever may be contained therein. Dror's objections thus shift the blame of the analyst onto the model, and we would say, unjustifiably. It is once more contended that the systems model by making it possible to identify all the relevant questions to be asked about any particular public policy will greatly aid our understanding of the forces which come into play to shape that policy from initiation through impact to evaluation¹ and therefore enables us

1. A thorough policy analysis should include the evaluation of the particular policy evaluation being undertaken, for only by this can care be taken to avoid some of the factors which may colour the perceptions of the analyst; especially in commissioned and funded policy research. Also this evaluation to the second power should be sought as a means of strengthening the claims of policy analysis to a scientific status.

as analysts to predict policy outcomes, to recommend policy choices or to suggest improvements in policymaking. By the same argument the systems model must be seen as a megatheory which by encompassing the major tenets of the other models of policy analysis will be of immense aid to a macro-conceptualization of the dynamics of public policy in general. The model has accordingly been used in Chapter Seven as a variegated analytical tool to highlight especially, the elitist, institutional, rationalist and incrementalist features of the Nigerian public policymaking process as it relates to economic policies generally and industrialization policy in particular.

CHAPTER THREETHE DEVELOPMENT OF INDUSTRIALIZATION POLICY IN NIGERIA

For many under-developed countries industrialization policy has been evolutionary; starting with a so-called open-door policy and evolving through import substitution to export promotion. This has been the case with Brazil, Mexico, India, Pakistan, and the Phillipines; the industrial leaders of the developing countries. Open-door policy, as it applies to industrialization, refers to a condition in which a country makes hardly any of the manufactured products it uses.¹ They are imported from abroad and their entry into the country is encouraged by charging low import duties or even none at all. When a country enters the import substitution stage on the other hand, it prefers that the foreign suppliers of its manufactured goods establish their plants within the country concerned, and once again incentives are offered to achieve the objective. The import substitution stage, therefore, is a period during which manufacturing activities take place within a developing country to cater only for the home market. In the last stage of the process, the export promotion, a country desires instead to export some of the product of its home industries to other countries; and it is often emphasized by the policymakers of the industrializing nations that this last stage is the ultimate goal of industrial policy (Hughes : 1980; UNIDO, 1969). It should be pointed out, however, that the three stages have never been strictly linear, as many of the countries named above took their import substitution stage into export promotion. Today in fact one tends to see traces of all three stages in the industrial activities of many countries, including the most industrially developed ones; but the co-existence of import substitution and export activities is more common.

The development of Nigeria's industrialization policy fits very well into the foregoing description. As far back as the close of the '40s the open-door policy had edged into import substitution which was re-affirmed as the goal of industrialization policy by the country's leaders at independence in 1960. Since then import substitution has been the main thrust

1. Some writers, e.g. Onimode (1982) use the open-door policy to apply to all policies of the government which aim to attract foreign investments. This usage is too broad, as it does not seem to take account of the different motives for which countries may wish to attract foreign investments. At least a distinction should be made between import substituting foreign investments which are valued in the under-developed countries for the opportunities they are perceived to offer for technology transfer and diffusion; and foreign investments in the developed market economies which are attracted with generous grants to depressed regions because of their job-creation advantages.

of the country's industrial activities even though flirtation with export promotion had started by the middle of the 1970s. This chapter broadly discusses these trends in Nigeria's industrialization policy. Its aim is to clear the path for the more specialized presentation made in the next three chapters. It should be noted that the open-door policy falls outside the period covered by this study. We will, therefore, deal only with import substitution and export promotion. The dominance of the former in the statement of industrial objectives and in the actual industrial programmes pursued justifies devoting more space to the subject here. First import substitution is discussed in detail as it is used to describe the industrialization process of the developing countries and as it is applied in practice by their leaders as an industrialization programme. This latter part is discussed in sections which make particular reference to Nigeria in each case. The second part of the chapter examines export promotion activities as they have developed so far. We examine mainly the export promotion law, the implementation of the law and the results achieved; measured by actual progress made in the export of manufactured goods.

What is Import Substitution?

Import substitution may be used in a direct and literal way to mean the move to make at home goods that were previously imported. There is, on the other hand, the more subtle and diverse meaning which looks at import substitution not only as an aspect of industrialization policy but also in the wider context of development policy as a whole. It will be helpful therefore to start this section with an overview of these different shades of meanings attributed to the concept.

Import substitution may mean 'reduction or elimination of certain imports and their replacement by domestic production', but this narrow and simplistic view hides some of the important features of the concept and conveys a notion of self-sufficiency which is meaningless when applied to countries which in practice operate import substitution (ECLA, 1964:4). Most of these countries are, in addition to many other adverse economic conditions, technologically backward and access to the latter is usually one of the reasons why they choose this approach (i.e. import substitution) for their industrialization. Under such adverse economic conditions autarchy as an option to economic development would be impracticable. In contrast, countries which have embarked on import substitution tend to become more dependent on imports. Thus it has been suggested (ECLA, 1964) that 'a vigorous and effective process of import substitution might actually be taking place

through an increase in domestic industry's contribution to an expanding domestic supply' without any alteration in the degree of an economy's dependence on imports. These remarks led the ECLA to define import substitution as 'an internal development process that arises out of, and takes its direction from, external restrictions and is evidenced mainly in the expansion and diversification of industrial capacity' (p.5). The Commission noted further that 'real' substitution is usually much less than 'apparent' substitution manifested in the reduction of certain imports. This is because import substitution usually gives rise to a derived demand (in terms of imports of basic raw materials and payment for capital, technology, services and so on) for imports which exceeds the savings in foreign exchange as a result of home production. The Nigerian case may be cited as an example of the conditions just described. There, import substitution has grown enormously in scope over the years as a result of the ever expanding domestic supply of manufactured goods, but it has led as well to great increases in the import of machinery and raw materials into the country. This will be discussed fully below and supported with data. Situations such as these present problems to the intellectual discussion of import substitution. One of such problems, the most important one perhaps, is that it becomes difficult to define the concept in aggregate terms, a difficulty which is absent when it is defined from the point of view of a single product. In aggregate terms, ambiguity is introduced by the fact that the reduction in the importation of one product achieved through import substitution may be counterbalanced by an increase in the import of another, and as Bruton (1970) argues, one is not sure whether to call a policy which brings this about an import substitution policy. Coleman and Nixon (1978) argue that a distinction should be made between import substitution as an historical phenomenon and import substitution as a development strategy. In the former case, import substitution is the product of a stage in economic growth while in the latter case economic growth is the consequence of import substitution. It seems however that the historical view can be contested on very strong grounds for its logical validity. If import substitution is an historical stage of economic development, then all countries must at one stage or another experience it, but this has not been the case with the earliest industrializers, in particular the earliest of them all, Britain. They did not import industrial goods in the first place, so the said goods could not have been substituted for. Another problem with the historical view is the temporal demarcation suggested by the argument.

An historical phenomenon is fixed within a time period and therefore has a beginning and an end. Import substitution, however, appears to have become a continuing process in which even the advanced industrial countries are increasingly becoming caught; hence both Britain and America are desperately trying to develop domestic substitutes for the Japanese cars imported into their countries. The Triumph Acclaim, for example, was developed in Britain to substitute for the Japanese Honda car.¹

If the observations just made are correct, it follows that import substitution can only offer an approach to development and economic growth may be one of its consequences. We are more inclined, therefore, to accept another of Coleman and Nixon's (1978:188) suggestion that import substitution may be 'conceived of as a wider development strategy', not only because it avoids the problems associated with the historical view but also because it is validated by examples from developing countries leaders in industrial progress; again Mexico, Brazil, India, to mention a few. The practice in Nigeria of pursuing import substitution through development planning seems to suggest that the country's policymakers regard it as part of development policy.

An important question which is rarely addressed in the conceptualization of import substitution is whether it should not encompass an attempt to change domestic consumption pattern altogether. In many under-developed countries, especially the colonized ones, import trade was out of tune with economic rationality when considered within the context of the country's economy as a whole. Hence motor car imports may be part of an economy which can only economically support bicycles as the means of transportation which a sizeable number of people can individually afford in those countries. We would argue that in situations such as the above, a country embarking on import substitution for motor cars should consider instead the domestic manufacture of bicycles and not the same brand of cars previously imported. This option, in keeping with the ECLA definition cited above, should lead to an expansion in industrial production because of the massive demand which will be created by producing goods that the majority of the population can afford. Coleman and Nixon also take cognisance of this point. They criticise import

1. It is important at this point to emphasize that import substitution concerns a deliberate attempt to replace imports of a particular product with similar or the same ones made domestically. Thus import-replacing may be used synonymously with import substitution. Without this clarification one might argue that all tradeable goods are potentially import substituting.

substituting industrialization for accepting 'the pattern of demand and the underlying pattern of income distribution as given'. It is necessary and desirable they argue to change both consumption patterns and distribution structures 'as aspects of social and economic structures which industrialization should radically change' (1978:192).

The Origin and Objectives of Import Substitution

Import substitution came originally as a response to the economic crisis created by the depression of the 1930s and the Second World War. During both periods, import trade could not take place either because there were no goods made in the exporting countries, or because the war made it impossible for them to be imported. Countries just had to try to make domestic substitutes for items they previously imported. Since the end of the war import substitution has been undertaken as a response to a variety of economic problems. Among these are balance of payment difficulties, stimulation of industrial development by newly independent countries, stimulation of employment and access to technology. To these may be added long term income maximization and national income distribution (Helleiner, 1971). Import substitution may also be chosen as a means of providing the prime mover for sustained growth (Bruton, 1970), and the latter is a common problem for development policy among the under-developed countries. Ahmad (1978) suggests criteria which must be borne in mind when setting the objectives of import substitution. They may be posed as questions thus:

1. How does import substitution compare with other policy options as a means of achieving industrialization? or,
2. What are the opportunity costs involved in choosing the import substitution option?
3. Can gains be made in dynamic efficiency and productivity of resources to compensate for the static losses in consumption and efficiency resulting from protection?
4. What are the likely consequences of import substitution for a country's balance of trade?

The above questions should serve as a useful guide to countries approaching industrialization through import substitution. Ahmad is convinced that unless the issues raised in those questions are considered carefully, when applying the import substitution approach, it may be impossible to achieve

1. The meaning and purpose of protection are discussed below.

the results expected of it. We may go on from here to look at the origin and objectives of import substitution in Nigeria.

Import Substitution in Nigeria: Its Origin and Objectives¹

Import substitution started in Nigeria with three groups of investors each pursuing a different motive. First, there were the merchant firms who, acting to protect a market in which they already have a foothold redeployed their trading assets into industrial production. Second were firms with no prior interests in Nigeria. They went there as part of a general drive to expand their global markets. The Nigerian Governments constituted the third group. They, especially after independence, were pursuing rapid industrialization because (as the policymakers argued) of its benefits for economic growth and development. For the most part they did not act independently but did so jointly with the other two groups. What follows below is a brief account of the role played by each of the above actors in the import substitution programme of Nigeria.

1. The Merchant Firms

This group led the way in import substituting investments. As was pointed out above, they were protecting a market which they had dominated for a very long time. Among the firms in the group were the U.A.C., John Holt, Leventis Ltd., Paterson & Zochonis Ltd., the CFAO, the SCOA, the UTC, and the Levantine.²

The UAC dominated the scene during this early phase. Its establishment of the Nigerian Breweries in 1949 was the earliest instance of import substitution. By 1957 the redeployment process had gone into full swing. That year saw UAC's establishment of a Raleigh bicycle and a Bedford lorry assembly plants. The redeployment process moved very fast. In 1956 industry was only about a third of UAC's investments but by 1964 it was already up to 55%. These investments were spread over a wide range of industrial activities: Bedford lorries and bicycle assembly, sewing thread, plastic products, woodwork and furniture, vehicle batteries, matchets, radio assembly, and printed textiles; were all among its manufacturing investments. By 1965 the UAC was involved in a total of 28 industrial investments out of which it held 50% and above equity in 16 including 6 which it wholly owned.

-
1. The account given on Merchant and market-seeking firms is based largely on Kilby (1969), Chapters 3 and 4.
 2. The Levantine consists of Lebanese, Indians and Greeks; who were individual investors. Their operations are of a much smaller size than those of the others in this group.

John Holt's redeployment process was slower and more limited. The reason suggested for this is that the firm had other opportunities in France and England (wine and spirit trade and car distribution) which although were less profitable were nevertheless less risky. Its redeployment into industry started in 1948 and by 1963 it had invested in a total of 11 industries, owning 50% and above equity in 4, one of which was 100%. The industries include metal doors, perfume and plastics.

The Leventis industrial investments in the same period comprised of three coca cola bottling plants, a vehicle assembly plant and production of industrial glasses.

The CFAO and the SCOA went into partial assembly of the lorries they distributed and the manufacture of other products they sell, such as metal doors and windows, paints, and galvanized iron sheets.

Lastly, the Levantine group redeployed into the manufacture of brass holloware, cotton blankets, perfume, plastic sandals, umbrella assembly, wrought iron and metal furniture among others.

2. The Market-Seeking Firms:

These firms, out to look for new markets, were primarily attracted by Nigeria's large size. They comprised:

- (a) Large, well established resource rich firms seeking profitable opportunities which they presume Nigeria's large market offered. The Aluminium Ltd. of Canada (Alcan) and Charles Pfizer who in 1961 respectively established igot rolling and finishing mill, and a plant to formulate and package antibiotics belong to this group.
- (b) Individual entrepreneur-promoter seeking partnership with governmental agencies on favourable terms. Textile manufacture in Northern Nigeria started with an investment of this sort. In that instance a private entrepreneur, E.A. Seroussi started a venture in Kaduna (to which public agencies and individuals contributed) which ended in failure. He later moved to Gusau to start a successful textile manufacture in partnership with the Northern Regional Government.
- (c) Manufacturers seeking outlet for redundant equipment. The prominent case cited here is the American textile firm of the Indian Head Mills. It promoted a textile factory established at Aba with a 40-year old machinery and N144,000 cash contribution. Its machinery was valued at N1,376,000 officially. The venture was valued at N4.8m and its equity was 70%.

- (d) Machinery Manufacturers - The two largest investments which were made here took place at the instance of Federal Government's invitation rather than being promoted by investors themselves. They are the cement factory in Nkalagu and the sugar estate and factory at Bacita. The first project started in 1957 and the second in 1961.
- (e) Machinery Merchants - This group was mainly involved in what were largely publicly financed projects. In 1962 such public investments were estimated at N60m. One firm in this group, Coutinho Caro of Hamburg made turnkey factory sales of more than N36m.

One may ask whether the above investors might not also have been motivated by other considerations; the most obvious of which will be lower costs. As Kilby (1969) did not say so, we assume that he took them into account and found that they did not hold true. This assumption will be a safe one if we consider that during the period concerned transportation, skilled labour, proximity to sources of raw materials, cheap supply of water and electricity, all of which make for lower costs were not obtainable in Nigeria; some of them to this day continue to make production costs in the country relatively high. Aside from what might be termed the selfish motives just discussed, Kilby also considered factors in the Nigerian economic environment which may have given rise to import substitution initially: either that import substitution was a response to technological threshold or it was a response to competitive threshold.¹ His empirical study found that the latter was the case. Giving examples of 16 different industries (p.54) he showed that there is no causal relationship between 'technological threshold and the time at which the first import-replacing investment occurs'. The validity of the competitive threshold on the other hand is demonstrated in part by the large size of the investments of the merchant firms discussed above, all of whom were acting to protect their market share. Also while the technological threshold of cement (30,000 tons) was reached in 1923, the first cement factory was established only in 1954 when the importation of cement had reached 368,000 tons, and even this was on the initiative of the government (p.100). What Kilby has described as the 'minimum sensible'

1. Technological threshold is the point at which the available market can support the minimum economically viable level of production of a single plant. Competitive threshold is the point at which it pays an entrepreneur to protect his stake in the market by going into local production rather than continued trade in a particular product.

to imply the size at which it makes sense to establish a factory for import replacement reduces technological threshold as a causal factor in import substitution almost to naught. Thus the large size of cement manufacturing firms makes 30,000 tons an inadequate basis for establishing a factory for its production to replace importation.

3. The Role of the Government

May's study (1963) is illuminating on the role played by the Nigerian Government in getting import substitution started in its early days. His survey of 26 firms revealed that of the five most frequently cited motives for initial industrial investment in Nigeria the top two had to do with government action:

- (a) to avoid being shut out by tariffs and other restrictions, and,
- (b) specific invitation or encouragement from the Nigerian Government.

Their frequencies were 15 and 11 respectively. In recent times the government has assumed an even greater role in the import substitution process. Apart from the wide range of assistance which it offers as encouragements to the manufacturing industries all of which are by nature import substituting it has by itself become the major investor in these industries. This is a subject for the next chapter. We should also restate that although import substitution started during the colonial period successive post independence governments have accepted it as part of the industrial policy to be pursued within the country's development planning.

The Second National Development Plan (1970-74) for example aimed to 'continue the programme of import substitution' and to use it to shift the emphasis of manufacturing production from light consumer goods to intermediate and capital intensive goods. It will be shown later that the government has become more committed to this objective which has been restated in the 3rd and 4th National Development plans and which is being implemented through public sector investment in projects of heavy engineering.

The Process of Import Substituting Industrialization

It is frequently assumed that the normal course of import substituting industrialization is for countries to start with the manufacture of non-durable consumer goods with the hope that this will ultimately lead to the manufacture of intermediate and capital goods. We have just seen that this is true of Nigeria. The theoretical elegance of this proposition and its logical appeal have however not been validated by practice. Although some countries have successfully followed the above course, for many it presents unsurmountable hurdles. Our aim here is to highlight the reasons why countries make this logical choice, the kind of problems met in implementing the choice and the method employed in overcoming the problems. We shall also consider the possibility of juggling the stages in the process and to see whether it is possible to start import substitution from any point thereof.

Why then do many countries start with the manufacture of consumer non-durables in their import substitution programme? Bruton (1970) has suggested the following as the reasons which commend that choice. First, there is a savings advantage; more foreign exchange savings are made by substituting domestically produced consumer goods for their imports than would be the case for intermediate and capital goods. The objective sought by policymakers in this choice is therefore a reduction in the foreign exchange cost of the import substitution programme. Second, the market argument. A ready market already exists whose extent can be tested by the imports of the particular commodity. The risk element associated with uncertainty is, therefore, reduced by the choice of consumer goods as the starting point of the import substitution process. Third, the higher prices of domestic products compared with the imports of the same product become an advantage. This is because consumer goods, especially the durables are not seen as essential for development. It is, therefore, preferable to accept higher prices for their restraining impact on these non-essentials than to allow this to happen in the cases of intermediate and capital goods which are seen to have a strategic role to play in the development process. The advantages enumerated above are only valid when import substitution for consumer goods are considered on their own. If, however, they are put within the context of the industrializing process as a whole, in which case it is only the starting point of the eventual domestic manufacture of intermediate and capital goods a number of difficulties arises. The following are frequently

mentioned:

1. Import substituting industrialization gets stuck leaving unsolved many of the problems which initially commended it as a possible solution. Balance of payment is a constant among such problems. Some countries may avoid this (the balance of payment problem) in their overall trade if they are oil exporters, but even here the non-oil trade may still suffer a deficit. Nigeria, as will be shown below, is an example.
2. Import substituting industrialization may be unable to move into the export market. The argument is that industrialists involved in the initial stages of import substitution become used to manufacturing inferior goods which they can sell in the protected domestic markets. These industrialists will be unable and unwilling to embark on the quality competition which entry into the export market calls for. As a matter of fact, quality does not only become a problem at the point of entry into the export market. The inferior products of the import substituting industries may be rejected for similar products made abroad which still find their way into the country either because their importation is allowed under tariff or because they have been smuggled in if they are totally banned by law. Another dimension to this matter which is even more serious, is that where a domestic product happens to be of a superior quality, it may still be rejected for an inferior import of its kind because all domestically made goods have been stereotyped as inferior. This was found to be true of certain products in Nigeria. It was revealed (Director, Nigerian Standard Organization) that the cement and electric bulbs made in Nigeria have successfully passed through international standard competition but their imported inferior types are nevertheless being sought after by the country's consumers. In the minds of these consumers, as the Director argued, anything made in Nigeria is automatically inferior to the same products made abroad.

-
1. As a measure to improve the quality of the home made goods, the government established the Nigerian Standard Organization (NSO) in 1971 and gave it the mandate to set standards (which must be in keeping with internationally accepted level) for made-in-Nigeria goods and to encourage manufacturers to abide by these standards. By 1981 the NSO had set a total of 160 standards for various products ranging from food, drinks and chemicals to mechanical and electrical engineering products. 69 other standards were in the pipeline by September 1982. One way in which the NSO encourages manufacturers to abide by its standards is to inspect their factories periodically and issue complying companies with 'Certificates of Quality' which entitles them to print the organization's 'Certification Mark' on their goods. The supposition is that goods carrying this mark will commend themselves to consumers. The fact, however, is that very few Nigerians are aware of the existence of such a Mark and what it is intended to convey. But used more effectively, the NSO should provide a basis for quality improvement not only for made-in-Nigeria goods for the Nigerian consumers but also for made-in-Nigeria goods for the export market entry into which is part of Nigeria's industrial ambition.

3. Persistence of the unemployment problem. The initial period of import substitution industries is unavoidably capital intensive because in the first instance there is no trained labour force to employ.

Another frequently cited problem of the import substitution process is the transitoriness of its growth capacity. Between 10-15 years has been given as the period within which the initial contribution of import substitution to economic growth and development elapses and stagnation sets in (Coleman and Nixon). The economy also suffers distortion and the community as a whole is surrounded with activities which are alien to it (Bruton, 1970). In supporting the stagnation thesis Helleiner (1971) argues that import substitution usually 'gets stuck at the threshold of the development of intermediate and capital goods industries' with no hope for the export of manufacture (p.105). On the dynamics of the process the ECLA (1964) has identified three conditions which become 'serious problems' as economic development through import substitution proceeds. First the size and the structure of domestic market alters in a way which leads to the latter's saturation. What is being suggested here is that the initial expansionist impact of wage labour on the domestic market soon disappears at which point only the market for a few goods for a few consumers expands. Secondly, production becomes increasingly capital intensive as machinery used are the same as those made for labour scarce economies. Thirdly, the imbalance in the productive resources become more noticeable in for example the supply of natural resources being out of tune with skilled labour and capital in use because the supply of the latter two have been unduly expanded through importation. It is advisable to present the opposite view to the stagnationist argument. Hirschman (1968) rejects the proposition that import substituting industrialization will unavoidably get stuck. He argues that such a proposition is based on an 'exhaustion model' which does not take cognisance of what he calls 'product convergence' and which erroneously establish a correlation between minimum economic size and higher stages of production. His contention is that some of the inputs necessary for the initial import substitution industries are likely to be identical (product convergence); steel, paper, glass; are all needed as inputs for a wide range of final products. Second, he contends that there are no known cases of a systematic study establishing the correlation between minimum economic size and movement towards higher stages of production. At every stage, including the production of machinery which represents the pinnacle of the process, small and medium-sized establishments

are to be found alongside large-sized ones. On the basis of the above stipulations, Hirschman suggests that the problem for backward linkage is to be found in the economic environment and policies rather than in the production process. The conclusion to be drawn from Hirschman's arguments is that it is possible through appropriate economic policies to create the conditions which will expand the linkage effects of import substitution and therefore make stagnation unlikely.

First, action may be taken to enlarge the total size of the market 'either for all products or for some products particularly important for industrial progress...' (Hirschman, 1968). In the one case the creation of a regional market offers a solution; in the other purchasing power can be extended to a larger proportion of the population through an income redistributive policy. Also, a policy which increases agricultural incomes, in a country where the majority live on the land, should greatly expand the market for consumer goods (Islam, 1972). This will be the case in most of the under-developed countries where import substitution is part of the industrialization policy. The spreading effect of the oil revenue in Nigeria coupled with successive wage increases have combined to expand the market for the products of the import substituting industries in a way which makes that market far from being exhausted.

Secondly, a policy decision has to be made, guided by the amount of foreign exchange saved, to set the point at which import substitution should give way to export. Macario (1964) suggests that this point should be where the production cost per unit of foreign exchange savings resulting from import substitution starts to rise relative to the production cost per unit of manufactured exports.

The stagnationist thesis can also be easily invalidated by the sheer size of a country's internal market. Even with a low purchasing power, the market of a country with a very large population will take a very long time to reach the saturation point. This and the increases in purchasing power alluded to above, means once more that the potential market for the products of import substituting industries in Nigeria is still very vast. This will be demonstrated in the relevant section of this chapter.

In the rest of this section we will look at other possible options to starting the import substitution process with the manufacture of consumer goods. To start off the discussion let us pose the question, 'Is import substitution an open process?', in which case each stage in the process offers a starting point. Coleman and Nixon (1978) would answer the question in the affirmative.¹ They would argue that it is possible either to reverse the process starting with capital goods production or in fact to start all three processes at once. Following this line of thought, they have suggested three options within the import substitution industrialization for which a country may use its foreign exchange. First a country may import investment goods (looms, raw materials, fuel) to manufacture consumer goods (cloth). Second, it may import capital goods (machine tools) to make capital goods (machine tools). Third, it may import capital goods (machine tools) to make both investment goods (looms) which in turn produce consumer goods (cloth) and to make intermediate goods and develop domestic raw material supplies.

The experience of early industrializers shows that they followed all three options simultaneously. This is in contrast with the practice in present day industrializing countries where the tendency has been to follow only the first of the three options. In Nigeria, however, the import substitution programme contains at least two of the options. In the first belongs the assembly industries which range from soft drinks and breweries to engineering products and electronics. The iron and steel projects on the other hand lie somewhere between the second and third options. Hirschman (1968) has argued that a piecemeal sequential adoption of the import substitution options may be smooth and less disruptive but they are also less learning intensive.

This seems a plausible explanation for the slow progress in industrial development made by import substituting countries in recent times; since the rate of industrialization itself depends on the rate at which technological learning is taking place. A similar argument has been made for Nigeria in the chapter on technology strategy. As the ECLA (1964) rightly observed, '.... given the conditions of import substitution model as it is presently constituted^{*} it is practically impossible for the industrialization process to proceed from the base to the apex of production pyramid ... The substitution process might be regarded as a building of which

1. Ahman (1978) has also subscribed to the view of import substitution being an open process by arguing that it is possible to start it with capital goods production barring limitations of technological capability and the supply of strategic raw material. The limitations observed by Ahman may account for the reason why many developing countries follow the first of the three options outlined below.

* My emphasis.

every storey must be erected simultaneously, although the degree of concentration on each varies from one period to another' (pp.6-7).

Policy Instruments for Implementing an Import Substitution Programme

Import substitution is operated under a number of policies and other measures designed to give incentives to industrialists to enter into the substitution process and to remain in it thereafter. These policies and measures are together called protectionism, so called because they seek to protect the products of import substituting industries from competition with similar products imported from abroad. Protectionism may therefore be taken as a 'systematic body of measures deliberately designed to permit and encourage the development of certain industries rationally selected within an overall framework of objectives established under a given economic development policy' (Macario, 1964:61). Since the central aim of protectionist policies is to shelter the products of the import substituting industries from competition with similar products made abroad, we shall use the concept to include not only the more direct action such as import prohibition, but also the use of incentives and other indirect measures which in practice reduce the competition which import substitution products face.

In the past a mixture of tariffs, quota restriction, exchange rate controls, and under-valued exchange rate were commonly used as protective devices. In recent times, however, various countries have added one measure or another to their protectionist policies. These have usually included a wide range of credit and fiscal arrangements, the establishment of government owned industries or development corporations and banks. They may also include mere counselling of foreign firms to establish manufacturing businesses or outright prohibition of firms from engaging in trading activities by law. We will now explore the specific objectives which protectionist policies aim to achieve.

We have already noted a major objective of import substitution, especially at the initial stage, as being to provide through domestic production consumer goods that were previously imported and that while this is happening the importation of machinery and other capital goods continue uninterrupted. An essentiality argument is often used to justify this approach. Thus import controls may be used to ban the 'non-essentials' while permitting the importation of the essentials. The former are the consumer goods while the latter are capital goods. Whether this approach

and its goal is invoked or not depends on the condition under which industrialization is taking place. Where an industrializing economy experiences expansion in foreign exchange earnings at the same time the absence of a balance of payment difficulty would scarcely warrant any controls. Linkage potentials, especially forward-linkages, is another consideration which commends industries for protection. An industry which has a lot of forward linkage effect increases the benefits of the market size argument by multiplying the existing market. Forward-linkage industries may also create the urge to enter into export markets to find outlets for the products of the dependent industries which cannot be absorbed domestically (Hirschman, 1968 : 16). Another objective which protectionist policies may seek is to encourage the growth of firms. This can, however be counter-productive unless there are criteria (e.g. costs) which are used to determine firms whose protection is rewarding to the economy. But protectionist policies seeking to encourage the growth of firms have often done so on a blanket basis resulting thereby in the growth of high cost firms alongside low cost ones (Bhagwati and Kreger : 1973). A related issue to the objectives of protectionist policies is whether protection is absolute or not. In absolute protection the importation of a product is banned outright, thus reserving the market solely for domestic substitutes. On the other hand, protection may take the form of increasing the prices of a product relative to the prices charged for similar products produced domestically. The extent to which the latter form of protection confers advantages and thus represent incentives to the home producer would depend among other things on the level of import duty imposed, the intensity of domestic demand for the product, the consumers' propensity to import, and the cost structure of domestic producers (Oyejide, 1973 : 267).

Protectionist policies face two main problems. First, how may they be made more relevant? These policies must reflect 'the national objectives for the general distribution of resources', thus a particular policy, such as tariffs, must be an expression of government's industrial and commercial policy (Hirschman : 1968 : 83). Moreover, measures of protection must be seen as a means of alleviating the unfavourable economic conditions of the under-developed countries within which industries are to operate. Hence they must be related as closely as possible to the particular set of conditions which obtain in a country operating the import substituting industrialization. Secondly, how can protectionist policies be justified

against alternative policy options? For example, should not protectionist policies be replaced with 'promotion policies'? The latter would involve direct methods of reducing disadvantages to industries, such as subsidizing the use of labour by providing training and other facilities and improving the institutions through which savings are channelled to industry. Suggesting the proposition, Little et al. (1970:14) argue that their advantages over protection is that they are directed towards the basic reasons 'why industry may suffer disadvantages rather than offsetting them by measures which have undesirable side-effects'. Bias against exports and increased capital intensity are two of such side effects (Little et al. 1970:Ch.4). These writers note that objection may be raised against replacing protection with promotional policies because of their effect on public finance. On the one hand there is a loss of revenue resulting from the discontinuation of import duties while at the same time there is an increase in government expenditure from subsidizing industry. They are convinced, however, that even if the above objection is valid it still does not make a good case for the exclusive use of protectionist policies. India and Pakistan are cited as countries where intermediate policies have combined protection with export subsidies. These policies, according to the authors, are superior to protection because they promote export and are inferior to promotion because they do not rectify the basic distortions which necessitate special encouragement for industry in the first place.

Almost all of the policy instruments mentioned at the beginning of this section, including legal prohibition, credit and fiscal arrangements and the establishment of government companies and corporations are among the policies used to foster the industrialization of Nigeria. But here apart from serving as protection for the import substitution industries they are also used to achieve other major industrial goals, such as the diversification of the structure of manufacturing industries and the distribution of the ownership of the assets in these industries between foreign and indigenous investors. It is, therefore, considered appropriate to defer the discussion of these policies to the next chapter which considers together all the policy instruments which are used generally to encourage the manufacturing industries in the country.

The Impact of Protectionist Policies

How do protectionist policies affect the economy of a country (industrializing through import substitution) in general and its industrialization process in particular? This question is now examined.

The principles behind import substitution as an approach to industrialization are diametrically opposed to the idea of free trade based on the principle of comparative advantage. One consequence of protectionist policies is that they violate the latter principle. Little et al. (1970) are very emphatic on this point, as are others in the neo-classical school. The said violation results directly from the over-development of import substituting industries as they take shelter under protection. Whether or not countries should solely depend on comparative advantage for their industrialization is itself a subject of dispute. Sutcliffe (1972 : 191) and others have argued that the industrialization of USA and some European countries did so under excessive protection and that the case for protection in the under-developed countries is stronger today because of the extent of foreign penetration of their economy, and the disintegration which the latter suffers as a result. It is only under protection, Sutcliffe concludes, that capitalist industrialization can take place in the present under-developed countries. Another impact which protectionist policies may have on the economy, again a negative one, is distortion. The distortion may take the form of over-valued currency, undervaluation of capital, capital intensity in the production process, aggravation of the unemployment problem, inequality in income distribution, adverse domestic terms of trade for agriculture and, inflationary pressure on the economy. These are once more neo-classical charges against protection. The above distortions create divergencies between nominal protection (that is protection as they appear on paper) and their effective conversions (the net value of protection). Studies of the structure of protection in Pakistan, Brazil and Mexico show a substantial difference between nominal tariff rates and their value when they are weighted with over-valuation, indirect taxes, and other distortions (Bruton, 1970 : 134).¹ Bruton has therefore

1. For many under-developed countries the value of effective protection is higher than their nominal value. The implication of this is that protection seems less costly to the economy as it is the nominal protection that easily comes into focus.

recommended that import substitution policies should be appraised on the basis of whether or not they distort an economy and whether they encourage productivity growth.

Protectionist policies may reduce aggregate savings as a result of what Khan (1963) calls consumption liberalization. The argument is that the home production of a given product increases its consumption more than what it would be under imports. This proposition which Khan found valid for Pakistan's cotton cloth industry between 1955 and 1960 is helpful in assessing the consumption spur arising from moving an item from importation to home production. The assembling of the Peugeot saloon and the Volkswagen beetle cars in Nigeria has undoubtedly liberalized the consumption of these items there. Prospective motor car buyers prefer them to other imported cars because as they say the spares for the home-made ones are readily available and save the inconvenience of having to put the car out of use for months while awaiting for a faulty spare part to arrive from abroad.

Finally, protectionist policies may have serious consequences for entrepreneurial efforts. Entrepreneurs used to the easy-going nature of protected markets are wary to enter into the tough competition of the export markets. Macario (1964) provides evidence of this for Latin America. The logical conclusion to be drawn from this is that when a country reaches the point at which it wishes to move its manufacturing industries from import substitution to export, it should think about relaxing the measures of protection at the same time. Protected markets undermine entrepreneurial capability in yet another way. Entrepreneurs operating under protection find it easy to pass the higher cost of production resulting from their inefficiency to consumers and are not, therefore, under any pressure to improve efficiency in production and other managerial matters.

Some writers on Nigeria's industrial development have argued that the country's industrial growth has been very fast and that this has been due to the programmes of import substitution operated under protection. The policy of protection has, therefore, been a success story from that point of view. If, however, we go further to inquire into the structure of industry brought about under that policy, this success quickly recedes, for the type of industries which have grown as a result of protection are the capital intensive assembly industries and as Phillips (1974 : 358) argues

this is not a good measure for real industrial development. In fact that method of production (i.e. the capital intensive method) has only delivered the manufacturing industries into the enclave trap. Hirschman (1958 : 112) argues that the enclave nature of assembly industries (which he calls 'enclave import industries') is different from those of extractive industries (where this phenomenon had been known at first) because of the greater backward linkage effects of the former. We would argue, however, that such backward linkages are not likely to be strategic because industries attracted through protection are rarely resource-based. Rather, as is the case in Nigeria, they are attracted by the easy profits which result from the pseudo-accounting system¹ encouraged by incentives (Williams, 1980). It is arguable that years of assembly industries in the country have not so far had any strategic backward linkage effect in, for example, the manufacture of component parts within its borders, as most of these together with raw materials are imported (Abumere :1982). Protection has had a positive result in two areas, however : the contribution of industry to growth in GDP and the rate of capital formation. These are dealt with in detail in the next chapter.

On the general result of import substitution Nigeria's experience has followed those of other import substituting developing countries. First, balance of payments continues to be a problem. Only its luck in having enormous oil resources has saved the country from the worst balance of payments situations, Table 3.1. While there is a surplus in oil trade between 1968 and 1980, a deficit was recorded in the non-oil trade throughout the same period except 1973. In total, 7 of the 13 years covered by the period have had a net deficit. This situation has been caused by the import of machinery, raw materials, skilled labour and other services for the import substituting industries. As Table 3.2 shows the import of machinery and raw materials was responsible for the largest proportion of import trade

1. We use this term to imply the marked difference between the book value of industries operated under protection and their real value. In Nigeria accelerated depreciation has in some cases led to the complete write down of certain items of capital equipments, such as motor vehicles, within six months. In some business enterprises such motor vehicles are then disposed of at more than half their original prices. There is, for example, always a long waiting list for the purchase of such cars which the Peugeot Assembly Company in Kaduna disposes of at intervals. The waiting list indicates the fact that the real worth of these cars is even higher than the prices asked for them, which as we said could be more than half the original value.

TABLE 3.1
Nigeria's Balance of payments
1968-1980 (Summary Statements)

Year	Oil (Nm)	Non-Oil (Nm)	Total (Nm)
1968	57.6	- 65.8	- 8.2
1969	106.6	- 134.6	- 28.0
1970	253.2	- 254.0	- 0.8
1971	604.6	- 540.6	++ 64.0
1972	809.7	- 860.0	- 50.3
1973	1,403.3	+ 1,366.4	+ 2,769.7
1974	5,192.9	- 2,136.3	+ 3,056.6
1975	4,190.4	- 4,006.7	+ 183.7
1976	5,237.5	- 5,547.4	- 309.9
1977	6,491.9	- 6,914.0	- 422.1
1978	5,741.9	- 7,016.9	- 1,275.0
1979	8,983.5	- 7,160.8	+ 1,822.7
1980	11,657.7	- 9,290.1	+ 2,367.6

Source: Extracts from Central Bank of Nigeria, Lagos, Annual Reports and Statement of Accounts for various years.

TABLE 3.2
Nigeria's Import Trade : Machinery and Raw Materials
as a Percentage of Total Imports, 1969-81

Year	Capital Goods	Raw Materials	Total
1969	30.4	30.1	60.5
1970	37.7	31.0	68.7
1971	39.1	28.1	67.2
1972	37.1	26.1	63.3
1973	38.0	26.7	64.7
1974	37.2	33.0	70.2
1975	42.3	26.9	69.2
1976	43.7	25.5	69.2
1977	48.2	23.2	71.4
1978	47.6	23.3	70.9
1979	48.6	23.1	71.7
1980	33.5	26.8	60.3
1981	31.1	24.4	55.5

Source: As in Table 3.1.

for each of the 13 years shown on the table. Only in 1981 was this proportion less than 60%. This should serve as a demonstration for the argument that import substitution has been mainly responsible for the poor performance of the balance of payments. Another way to assess the result of import substitution which is of great importance to this study is to look at its impact on the growth of technological capability and the generation of indigenous industrial entrepreneurship and manpower, all of which are stated objectives of import substitution.

The hope that domestic establishment of manufacturing industries rather than mere importation of their products will open the gate to technological development rarely materializes and in Nigeria it has not, as yet. As Williams (1980 :14) argues, 'there is little evidence of the development in Nigeria of an independent capacity for industrial production, and none of any prospects of exporting manufactured goods'. It must be emphasized that certain characteristics of import substitution programmes, in particular their capital intensive nature, do not facilitate technological learning which takes place (especially at the early stages of that endeavour) through imitation, i.e. copying or fabrication, and adaptation. This is more so as some of the policies used to implement the programmes in question reinforce those of their characteristics which inhibit technological learning and development. For Nigeria, it has been noted already the industrial incentives operated in the country have tended to encourage assembly type capital intensive industries which are generally over-capitalized.¹ But the capital intensive method of production makes it difficult either to imitate or to adapt the technology being used in the production process, and it cannot be adjusted to take account of the abundance of labour in relation to capital (Hirschman, 1968). Import substituting industrialization, 'brings in complex technology but without the sustained technological experimentation and concomitant training in innovation which are characteristic of the pioneer industries' (Hirschman, 1968:8).² The limited number of personnel

-
1. This over-capitalization becomes more manifest when the industrial method of production is juxtaposed with the country's natural resource endowments, especially its enormous human resources, and Onimode (1982 : 187) presents data in table 12.6 to show that the capital-labour ratio for Nigerian industries in 1967 was higher than that of Japan for the same period.
 2. As will be seen in the chapter on this subject (technological development) the behaviour of the multinational corporations in Nigeria has made it even more difficult to achieve the objective of technological development through import substitution. It will be argued in particular that these corporations have made it impossible for 'sustained technological experimentation' to take place within the borders of Nigeria and that this has meant a serious loss in innovational training.

needed to operate the capital intensive industries means also that they have little use for training indigenous manpower for industry. The loss in technological innovation is compounded by the loss in entrepreneurial innovation. A major thesis in the theory of entrepreneurship is that it is an innovative activity (McClelland, 1961; Hagen, 1962). Import substitution through protection 'does not create domestically owned and operated industry capable of competing successfully with its foreign rivals' (Johnson, 1964), instead it entrenches the dominance of the latter by allowing it to create a local industry in which the would-be indigenous entrepreneur seeks merely to become a distributor. This position is scarcely altered even where as in Nigeria, local participation is insisted upon by law.¹ Leff and Netto offer a generalized view on the impact of import substitution. Constructing a sequential model showing the effect of import substituting industrialization on national income and balance of payments in Brazil they concluded that:

...the conditions of many under-developed countries approximate those of our model, and its conclusions have a validity going beyond the Brazilian experience: import substitution cannot be relied upon to end the international disequilibrium of most under-developed countries.

(cited, Coleman and Nixon, 1978: 196).

Nor can import substitution lead to an independent industrialization, since as Sutcliffe (1972) argues only in those capitalist under-developed countries which have been most obviously satellized by the advanced countries, has industrial growth taken place in recent times (p. 192). Thus import substitution can only 'transform the under-developed countries into miniature but inefficient replica of the economies of advanced countries' (Johnson, 1964). The Nigerian experience sustains the foregoing conclusions. We have shown that import substitution started there as far back as the 50's, yet Nigeria is today neither on the road to independent industrialization nor has it made much progress with technological learning and the growth of indigenous industrial manpower and entrepreneurship. Its assembly industries are mere inefficient replications of the production and consumption patterns of the developed countries; or as Onimode (1982 : 182) argues import substitutes in Nigeria are 'tailored to the consumption

1. This is very similar to the conclusions reached by many studies about the impact of the Nigerian Enterprises Promotion Decree on the creation of indigenous entrepreneurs in the manufacturing industries. See especially, P. Collins (1974 & 1975).

habits cultivated by the [MNCS'] soporific advertising and global distributions', and are, therefore, inappropriate. The issues raised in these concluding remarks are elaborated in the chapters dealing with the specific subjects - technology, investment and manpower. The rest of this chapter explores the efforts made by the Nigerian policymakers to put the country into the export market for manufactured products.

The Promotion of Manufacturing Exports in Nigeria

This section, as stated before, will examine the manufacturing-exports activities taking place in Nigeria and the public policy relating to them. We begin by trying to establish what in the Nigerian context can be regarded as a manufacturing activity, and hence what constitutes a manufacturing export.

The international symposium on industrial development held in Athens in 1967 under the auspices of UNIDO had suggested that the advanced processing of a country's raw materials for export, whether these be agricultural or mineral products, should be the starting point of the development of an export policy. This proposition would argue that the export of manufactured products from Nigeria dates back to the colonial period and that policy commitment to this can be traced to the First National Development Plan (1962-68).

The period after the Second World War saw the processing of selected Nigerian products (especially cotton, groundnuts, hides and skin, and tin ore) before they were shipped, mainly to Britain, and the First National Development Plan, acknowledging the necessity for this, had argued that there must be a policy commitment to the processing of Nigeria's agricultural raw materials 'so that they can be exported as semi-finished products'. This statement may be regarded as the beginning of a policy stance relating to the development of export industries in Nigeria. Subsequent development plans (2nd, 3rd and 4th) also carried statements about the need to develop export industries, but this need was only practically demonstrated for the first time with the creation of the Nigerian Export Promotion Council (NEPC) in 1976. This council has, therefore, provided a focus for the study of export promotion programmes in Nigeria. The discussion here centres largely on the council. It begins with an outline of its objectives as they are contained in Decree No. 26. Following this, we take a look at the internal organization of the council and its activities. Finally, we examine the results achieved so far by looking at the changes which have occurred in

the country's export trade over a given period. This period has been chosen to include 1969, seven years prior to the creation of the council; and 1981, six years after it had been in existence. The period covered will make it possible to determine whether the NEPC has been able to alter the export of manufactured products from Nigeria positively through its activities, the purpose for which it has been created. That brief evaluation brings us to the end of this section.

The Nigerian Export Promotion Council : the Purpose for its Creation

The NEPC, as has been said, was created by Decree No. 26 of 1976. This decree gave the council nine mandates, the most fundamental of which was 'to advance the course of export trade of Nigeria and to suggest policies to be pursued and measures to be taken by the government towards achieving this objective'.¹

Although it was proclaimed in 1976, the formal inauguration of the NEPC took place only in March 1977 and it saw its first task as articulating its legal mandates into what might be regarded as its own organizational objectives as a basis for understanding its specific roles and how to

1. Other mandates include:

1. to conduct periodic reviews of the export trade policy of the country and advise government on measures to be taken to improve the performance of Nigerian exports in world markets;
2. to advise government on the setting up of flexible machinery to provide Nigerian producers and exporters with export financing facilities, rebate on exports and other incentives for the promotion of Nigerian exports; .
3. to advise government on tariffs policies in so far as they relate to the export trade;
4. to assist government in the identification of export-oriented industries and the determination of export targets for various classes of goods with adoption of measures necessary to the attainment of the targets;
5. to advise government on the establishment or provision of trade promotional facilities, including showrooms at important commercial centres both in Nigeria and abroad;
6. to advise government on measures designed to eliminate trade malpractices and the setting up of machinery for arbitrating disputes arising between exporters and foreign importers.
7. to engage in promotional publicity in Nigeria and abroad in collaboration with Nigeria's missions overseas, designed to educate and motivate Nigerian producers and to provide information regarding Nigerian export products; and
8. to carry out research into any of the matters mentioned in the foregoing provisions of this section, and provide advisory services in connection with the promotion of Nigeria's export trade.

perform these roles.¹ Thus the council saw its objectives as:

1. to spear-head the national effort in export development and promotion by generating ideas, suggestions and measures designed to advance the course of Nigeria's export trade;
2. to advise and assist the government in the identification of export-oriented industries and to help to stimulate the growth of export trade and especially non-traditional (value-added) exports from Nigeria;
3. to assist the Government in the creation of the necessary export infrastructures such as export financing facilities, export incentives, trade information services and other trade promotional activities.

Having understood its objectives as given above, the council then defines its specific functions, what it called its 'work programmes', as:

- (a) Export development activities.
- (b) Export marketing activities.
- (c) Export financing and incentives.
- (d) Trade information services.
- (e) Trade facilitation activities.
- (f) Export publicity.
- (g) Training activities.

Before we discuss the council's activities relating to the above functions, we will briefly describe its internal organization.

The Organization of the NEPC

The NEPC has three departments: the Operations Department, the R & D Department, and the Personnel and Administration Department. Only the first two perform functions directly related to export promotion and are now briefly discussed.

The Operations Department has two divisions: one, the marketing division, has the task of surveying and identifying foreign markets for made-in-Nigeria goods. It is its job as well to introduce Nigerian export manufacturers to established foreign markets for their products. Finally, the division gives expert advisory services to export manufacturing companies in such matters as product design and adaptation, quality control and standards, costing and pricing for export. The second division, the promotion division, supervises and monitors the effectiveness of the incentives approved by the government for export manufacturers. It is responsible for co-ordinating the participation of the manufacturing companies in export-oriented inter-

1. This, as we said in Chapter 1 has been the practice of most of the agencies of the government created for implementing Nigeria's industrialization programme. See also the following chapters for more examples in subsequent chapters

national trade fairs. It is assisted in this by the Federal Ministry of Commerce.

The R & D Department also has two divisions: development, and trade information. Among the functions of the divisions directly connected with export promotion are: monitoring the implementation of the export policies contained in the national development plans, co-ordinating technical assistance programmes in respect of trade promotion and export market development, and supervising bilateral and multilateral trade negotiations with a view to ensuring their effectiveness in promoting Nigeria's export trade.

The Activities of the NEPC

We shall review hereunder the various activities carried out by the NEPC between its inception and 1982 in the pursuit of its objectives.

One task which the council embarked upon soon after it took off was a comprehensive survey of Nigeria's export potential, carried out through the Enterprises Consulting Group of Nigeria. The survey had two objectives:

to determine the area in which Nigeria has potential for developing export-oriented industries; and

to identify, determine, and assess the needs of potential export markets for the products of Nigeria's manufacturing industries and to formulate plans for meeting export market requirements.

The study revealed that the countries in the sub-region covered by the Economic Community of West African States (ECOWAS) hold the greatest hope for Nigeria's manufactured goods. The countries specifically mentioned were Ivory Coast, Senegal, Guinea, Liberia and Sierra Leone. The above findings prompted a more detailed study of the market of each country for made-in-Nigeria goods. This latter study further revealed that there exists in each case a vast potential market for the following goods: wood and wood products, light engineering products, textiles, automotive parts, enamel ware, plastic ware, detergents and soap, cosmetics and a variety of toiletries. The NEPC in response to the enthusiasm generated by this discovery among Nigerian manufacturers organized a trade mission to the countries concerned for September/October 1981. The mission lasted ten days and got orders of N11.5m for Nigerian manufactured goods. Another outcome of the mission was the formation of a National Association of Nigerian Exporters (NANE) by the 10 companies which participated in the mission.

Closely related to the survey just described is the survey of Nigerian exporters undertaken with the help of UNCTAD, GATT and six Nigerian universities. The latter survey made interesting revelations as well. The following were outstanding:

- (a) 81% of the exporters/potential exporters started after independence.
- (b) Excess capacity existed mostly in the food, beverages, tobacco, cola, chemical, rubber, petroleum and metal products.
- (c) Lack of adequate government incentives, the existence of trade restrictions and lack of market information for export products hinder export activities.

Thirdly, the NEPC designed, and obtained government approval for, a package of export incentives. Some of them such as pioneer status, bank credits, duty-drawbacks and approved user scheme are offered as incentives generally to the manufacturing industries and are discussed in Chapter 4. Those exclusive to export activities are:

First, Export Credit Guarantee Fund and Insurance Scheme - a fund with an initial capital of N1.0m has been set up to provide financial guarantee to commercial banks for insurance cover for export from Nigeria. The insurance covers commercial risks originating from insolvency, default or delay in payment by foreign importers of made-in-Nigeria goods; and non-commercial risks originating from political situations or from natural catastrophe.

Second, Export Development Fund - started with a grant of N250,000.00 from the 1979/80 fiscal year the fund provides direct grants and offers financial assistance to Nigerian exporters to cover initial expenses with respect to the following export promotion matters:

- (a) Participation in training courses, symposia, seminars and workshops in all aspects of export promotion.
- (b) Advertising and publicity campaigns in foreign markets.
- (c) Export market research and studies.
- (d) Product design and consultancy.
- (e) Participation in trade missions, buyer-oriented activities, overseas trade fairs, exhibitions and stores promotion.

(f) Cost of collecting trade information.

(g) Organization of 'Joint Export Groups'.

Third, Export Liberalization Measures - Pressure from the NEPC has secured the exemption of some export goods from licensing and the simplification of licensing procedures for those exported under licence.

Other activities of an incentive nature are the establishment of trade information service to provide library facilities about export markets and the establishment of a committee on trade procedure to simplify and streamline documentation required to move goods in and out of Nigeria.

Fourthly, there has been a survey which compiled an inventory of handicraft products in Nigeria. With the inventory, a market intelligence sampling was taken which revealed a ready market in North America and many European countries for wooden and metal carvings, raffia chains, place mats and a host of other products. The survey has also enabled the NEPC to discover the problems which have undermined the industry for a long time and to take measures to tackle them. The lack of adequate working capital, the lack of proper organizational set-up, and the lack of official support for the industry are all being dealt with through appropriate measures.

Finally, seminars and symposia are organized by the NEPC at intervals on export development and promotion in Nigeria. They are seen as a means of generating national export consciousness generally or for particular products. One of the five seminars held between 1977 and 1982 was aimed, for example, at generating export consciousness among textile manufacturers in Nigeria. We will now examine the actual performance in the export of manufactured products from Nigeria against the foregoing account.

Manufactured Exports from Nigeria

If the NEPC were to be judged by the account of its activities given above it will no doubt be described as a very active and useful organization. There is also little doubt that its activities have been designed to achieve the objectives for which it was created as stated in Decree No. 26. The vigorous and extensive activities of the NEPC have not however yielded positive results with regards to increased export of manufactured products from Nigeria. The records of manufactured exports from the country between 1969 and 1981 show that these exports have actually declined in volume: Table 3.3. It can also be seen that non-agricultural manufactures as a

TABLE 3.3
Manufactured Exports as a Proportion
of Total Exports (Percentages)

Year	Agro-Based Manufactures	Non-Agric. ¹ Manufactures	Total
1969	4.3	4.7	9.0
1970	3.0	4.4	7.4
1971	1.3	2.3	3.6
1972	1.2	1.3	2.5
1973	1.7	1.1	2.8
1974	0.6	0.6	1.2
1975	0.5	0.6	1.1
1976	0.4	0.5	0.9
1977	0.8	0.3	1.1
1978	0.5	0.2	0.7
1979	0.3	0.1	0.4
1980	0.2	0.1	0.3
1981	0.2	0.2	0.4

1. Includes the processing of Tin Ore

Source: Computed from Central Bank of Nigeria figures.

proportion of total exports have actually declined within the periods covered in the table. One is therefore eager to find out the factors that have so thwarted the efforts of the NEPC as to reduce them almost to nothing. In a self-evaluation critique the NEPC has advanced a number of reasons why its efforts have had little effects. The most important of these as the NEPC would have us believe is to be found in the 'traditionalist approach to export development strategy in both public and private sector...' To support its claims the organization draws attention to Nigeria's fiscal and monetary policies which it argues 'are heavily weighed in favour of imports'. Among the other problems mentioned, some of which the NEPC is tackling through its activities are:

First, there is what the NEPC has described as the 'oil syndrome' in which the mining and export of crude oil has so occupied the attention of

decision makers in both government and business alike that they tend either to forget about manufactured exports or to show only a secondary interest in them. Second the restrictions imposed by multinational corporations on their subsidiaries operating in Nigeria include the requirement that they, the subsidiaries, produce only for the local market. Third, export incentives continue to be inadequate as is information about foreign markets to the Nigerian potential exporters. Fourth, naira, the Nigerian currency, is over-valued meaning that made-in-Nigeria goods suffer a pricing disadvantage relative to similar goods in the foreign markets. Finally, limitation of funds has also imposed a limit on the extent to which the NEPC can go to stimulate export activities in the country.

The problems stated above are to a very large extent straightforward truths and are easily acceptable to anybody familiar with the Nigerian economic scene. That over-zealousness with the mining and export of crude petroleum has been to the detriment of the other sectors of the economy in the past, especially agriculture and manufacturing, is a fact which the policymakers have openly admitted¹ and this is why as the Shagari regime has argued, agriculture claims the first priority of the government. As for the second complaint it has been sufficiently documented that the MNCs do not normally allow their subsidiaries to engage in export trade, unless this is taking place among the subsidiaries themselves (Dunning, 1971); hence, technology licensing agreements between a multinational and its foreign subsidiary or a host country's indigenous firms usually contain clauses which among others restrict exports (Casson 1979). We will return to this in Chapters 6 and 7. There is something also to suggest that the NEPC is not adequately funded. For example only ₦0.25m is available for the Export Development Fund. This is grossly inadequate in view of the diverse activities for which the fund is meant. It may similarly be observed that the ₦1.00m made available for the Export Credit Guarantee Fund and Insurance Scheme is too small for these purposes. Finally, that transport and communication facilities in Nigeria have not attained the level in supply and function which are compatible with a vigorous export trade or manufacturing activities in general is not difficult to prove. Its 3,524 Km of railways

1. Not even 'downstream' oil based industries have received adequate attention so far. Although there are three oil refineries this caters for less than half of the country's oil consumption. For a long time there is talk about the development of petroleum based fertilizer industries but none has taken off up till now.

are still largely those developed by the colonial governments to collect agricultural products from the hinterlands to the seaports. Only the Jos-Maiduguri line which is less than 500 Km has been added since independence. Also, the 96,932 Km road networks are not all suited to moving heavy equipment and the few that are scarcely last for one full year before they start to crumble. For example the road leading to Ajaokuta (the site of the main iron and steel plant in the country) which was supposedly specially built for the iron and steel project was already littered with potholes in the summer of 1982; less than 18 months after it was completed. Telecommunications are equally problematic; the few lines of telephones and telex connected to the main cities work for less days in the year than they breakdown. One would have thought, therefore, that the best way to improve the export of manufactured goods from Nigeris is to tackle the above problems so that NEPC can be more effective. Instead of this, however, the government has preferred to introduce another scheme in export promotion - the Industrial Free Zones. These zones first proposed in the Nigerian Industrial Policy and Strategy : Guidelines to Investors (1980), are to be locations within the country which produce exclusively for exports and which enjoy special privileges for this purpose - cheap supply of water, power, efficient transport, telecommunications, banks, and many other facilities which are thought to be necessary to make the zones function effectively. Duty will neither be charged on imported machinery and raw materials for use in the zones nor on their products. The proposal had not materialized as at August 1982. It was gathered this time that the government was still studying the result of a feasibility study which had identified five suitable locations for the zones throughout Nigeria. How much the new proposal will be able to contribute to the export of manufactured goods from Nigeria is, therefore, a matter for the future. For the present it seems logical to expect that the implementation of the schemes envisaged in the Industrial Free Zones will divert resources away from the NEPC and cost the organization further losses in effectiveness. Only if the zones fully compensate for the losses will they justify their existence. If they thus turn out to be a viable experiment it will be advisable to hand them over to the NEPC and to make them the major instrument of the organization's export promotion activities.

Conclusion

It may be helpful to conclude this chapter by examining critically the relationship between import substitution and export manufacturing industries as industrialization programmes. For this purpose, the following questions are dealt with: what is the functional interrelationship between import substitution and export manufacturing industries? Do they provide an either/or option of choice or are they in any sense complementary? If they are complementary, in what ways can they be reciprocally reinforcing and how might this be encouraged through public policy? Finally, how does the Nigerian case relate to the above considerations?

It was mentioned at the beginning of this chapter that policymakers when they embark on import substitution see it as a launching pad into export industries. This will mean that a functional interrelationship is assumed between the two. But if we look again at the way the former works, it will be found that some of its major characteristics are incompatible with the requirements of export manufacturing industries. Thus import substituting industries:

1. are dominated by consumer-goods, and the circumstances in which many under-developed countries start industrialization may make this the only option at least in the short and medium term. For export manufacturing industries, on the other hand, the market for consumer goods, especially their non-durables is very limited as most countries, including the least industrially capable will strive to supply these items from internal production;
2. have a market which is limited to only one country at a time, hence their products may over time assume a kind of cultural specialization which will be unsuited for the multi-culture of the global export markets;
3. are not freely competitive but are protected by elaborate incentives and other measures which tend to give cumulative benefits to the industrialists engaged in them; this is possible because the import substituting industries are dealing with one country and one government. Export industries have to deal with many countries and many governments at a time hence the benefits offered by the incentives enjoyed in one country may be completely negated by the measures of other countries in which they operate.

4. condone low standards and operational inefficiency as these do not adversely affect the sale of their products in the protected markets, but high standards and efficiency are matters which export industries must take very seriously as these are the only guarantee of a place for their products in the keenly competitive world market.

The above considerations commend UNIDO's warning (1969) that export policies must be considered in their own right¹ because, it can be inferred from the above comparisons, they address a different set of problems from those of import substitution. The only time when import substitution can lay the foundation for export industries, it is argued (UNIDO, 1969) is when both are started almost at the same time and synchronized through development planning. There are serious doubts, however, that this can be a practicable proposition for many under-developed countries. Only to those which are not in the worst type of economic conditions (balance of payment deficits, shortage of skilled labour, inaccessibility to advanced technology) under which industrialization begins will this offer a dim possibility and it can only be achieved through such a vigorous policy commitment that are rarely found in the industrial policies of these countries. What emerges from the discussion up to this point is that where the economic conditions are favourable import substitution and export manufacturing industries may have a slim functional interrelationship and can, therefore, only be marginally complementary; but we hasten to add that these minimal interrelationships can be maximized through the choice made in the approach to import substitution. We refer once again to Coleman and Nixon's three options and argue that the relationship between import substitution and export manufacturing industries is stronger in all respects as one moves through the options. Thus a country which is in a position to start its import substitution by importing capital goods to make capital goods may through that acquire a technological capability which can then be used to develop export manufactures. The one relationship that does not exist at all between the two programmes (import substitution and export development) is the either/or option. It is inconceivable that a country will emerge from nowhere in the industrial community to seek entry into the export market.

1. As it argues (p.8) 'the export of manufactures requires specific attention and should rank as an explicit policy objective in the overall development and industrial plans of developing countries...'

Either that a country starts import substitution and by the force of circumstances acquiescence in it, as most developing countries have done, or where conditions are more favourable use that through appropriate programmic choice to develop export industries.

If we turn now to the Nigerian case the following conclusions can be drawn in the light of the issues raised in the preceding discussions. First, although the need for an export industry was recognized early by the country's policymakers and in connection with development planning, it took a long time before the need matured into concrete programmes but even these have still suffered lapses arising from policymaking which have seriously limited their effectiveness. Second, the programmic approach to import substitution had been the first of Coleman and Nixon options for a long time. Only recently has there been a move towards the second option with the establishment of assembly industries in engineering products. The third option still have not been reached. The talk which is now common in policymaking circles (evidence of which was gathered during the field work) is that the completion of the iron and steel projects will enable the country to start machine industries. It is in preparation for this that a machine tool factory has been established already. More is said on this in the chapter on technology, but for the moment it is clear that import substitution industries in Nigeria have not yet functionally linked up with export industries and the two are not therefore complementary as yet. It is only hoped in keeping with the policymakers' claims that a vigorous policy will be mounted to develop these relationships as soon as the iron and steel projects take-off. This may be something for future research.

The main purpose of this chapter has been to put the problems inherent in the making of industrialization policy in Nigeria into focus. These are the same problems which are common to the country's industrialization strategies considered in subsequent chapters. First, there has been shortcomings in policy formulation; as for example in the choice of the approach to import substitution. We have just argued it should be recalled that the reason why import substitution industries have not functionally linked up with export industries in Nigeria is because the approach adopted for it - importing capital and intermediate goods as well as raw materials to make consumer goods for the home market which is heavily sheltered from competition by protective policies - cannot lay the foundation for export industries. Yet it is only in their complementarity that these two can help a country to make appreciable progress in its industrialization drive. The wrong choice

of approach has been compounded by poor timing. The 14 years between the First National Development Plan (1962-68) and the time when an export programme was actually formulated (1976) had meant that import substitution and export promotion have not been started simultaneously and synchronized through the development plans at an early stage. The two programmes have, therefore, not been mutually reinforcing. To shortcomings in policy formulation may be traced again the reason why import substitution itself has achieved hardly any of the results expected of it. It was argued in the theory of policymaking discussed in Chapter 1 that policy formulation may be projected into the future to anticipate the impact of the policy being considered. There is no evidence that this has been done in respect of import substitution programme (or indeed export promotion) hence such undesirable consequences as the over-capitalization of these industries and the resultant minimal impact on the generation of industrial manpower and technology have not been anticipated and guarded against.

Second, there have been problems with implementation especially in respect of export promotion. Here one notices a concentration of inter-dependent non-implementation. The failure to deploy adequate financial resources to the NEPC; the incorrect valuation of the country's currency to reflect the desire for entry into the export market and the inadequate provision of export incentives have, in addition to the other problems noted above, made it difficult or impossible for the Export Promotion Council to implement some of its mandates and the programmes it would otherwise have conceived as necessary to achieve the goals of advancing Nigeria's manufacturing exports.

Thirdly, there is a complete absence of policy evaluation. Neither for import substitution, export promotion or any of the strategies discussed in Chapters 4, 5 and 6, has there been an attempt to set up a machinery specifically for evaluating the programmes being implemented in order to monitor impact and supply new inputs to regulate the entire mechanism of the policy process in what we have called feedback in systems theory. This is an important point to which we will return in the concluding chapter, where an attempt will be made to use systems analysis in the supra-theoretic form we have conceived it to comment on the making of industrialization policy in Nigeria.

PART TWOSTRATEGIES IN NIGERIA'S INDUSTRIALIZATION POLICYIntroduction

This section uses economic theory to highlight the pertinent issues which emerge in an attempt to design a framework for studying the industrialization policy of an under-developed country. It examines briefly the arguments stipulated in the neo-classical theories of growth¹ and in the process isolates elements which, as these theories argue, must serve as the building blocks for an industrialization policy in a developing country, and we find them very useful for this purpose. The said theories, therefore, serve as the frame of reference for organizing the data on Nigeria's industrialization policy into its strategic components which are discussed in the chapters immediately following this introduction.

Post-Keynesian growth theories treat growth as a function of capital accumulation. The Harrod-Dornar models, for example, following in this tradition have emphasized the effect of capital accumulation on full employment (Thomas, 1975 : 58). The Kaldor and Mirrelees models (1962) are slightly different from the former in their concern - they have sought to establish the relationship between capital and changes in productivity - but both like all in this school have neglected the effect of technological state and technological changes on growth through their impact on capital. On the other hand, neo-classical growth theories have been mainly concerned with relating factor utilization to measured output. Their production function involves a relationship between savings ratio and capital accumulation on the one hand and technical progress and the elasticity of factor substitution on the other (Thomas, 1975 : 63). Their models, therefore, contain variables which are very helpful in analysing the nature of the industrialization problem of the under-developed countries. These models are reviewed briefly in the following passages and they lead logically to the breaking up of Nigeria's industrialization policy into what is deemed to be its strategic units.

1. In discussing these theories we have benefited a great deal from Babatunde Thomas (1975), although our concern and application of the theories differ from him.

1. Solow's Embodiment Thesis (1956)

A prevalent view in the neo-classical theories is that increased efficiency is a product of improvements in new physical capital equipments. Expressing this view, Solow has written:

Improvement in technology affects output only to the extent that they are carried into practice either by net capital formation or by replacement of old-fashioned equipment by the latest models, with a consequent shift in the distribution of the date of birth.

The above view is opposed by those who argue the disembodiment thesis. To them technology may exist as a piece of knowledge or specialized skills independent of capital equipment. An important observation here is that both of these pre-suppose the existence of a science and technology base since they (the theses) can only be operationalized with the prior existence of such a base. We will in Chapter 5 use the embodiment and the disembodiment theses to distinguish between technology transfer and technology communication.

2. Salter's Gross Investment Argument (1966)

In Salter's view capital equipment only carries the potential for improving technology. That potential can only be actualized through gross investment. He argues that:

Without gross investment, improving technology that requires new capital equipment simply represents a potential for high productivity; to realise this potential requires gross investment - the rate of gross investment is a vital determinant of the extent to which observed productivity lags behind best-practice productivity.

The distinction between observed productivity and best-practice productivity in the above quotation is illuminating on the role of imported technology in the under-developed countries. The importation of a new technology may raise overall productivity in the sector to which it has been applied, but such an increase may nevertheless be far below the potential increase in productivity which the best use of the technology is capable of bringing about. There may even be instances in which overall productivity declines (Bowen-Jones, 1978 : 79-80). These instances easily arise when an imported technology is too capital intensive for the stage of the technological development in the sector concerned or when it is too complex for the comprehension of indigenous

technicians whose training often stops at the most elementary level of technological sophistication. In the latter case the imported technology has little learning impact. One suggestion which emerges from the above highlights is that imported technology can only be used to a great advantage in the developing countries if there is sufficient skilled manpower to operate and maintain the technology concerned. Issues such as these are touched upon in Chapters 5 and 6.

3. Arrow's Learning Model (1962)

According to Arrow's formulation technical progress increases national output through cumulated gross investment, including knowledge and skills, and accumulated experience from productive processes. He writes, '..technical change in general can be ascribed to experience. it is the very activity of production which gives rise to problems for which favourable responses are selected over time'. Arrow uses cumulative gross investment as the index of experience, hence, as he further argues, 'each new machine produced and put to use is capable of changing the environment in which production takes place with continually new stimuli'. Arrow's model by presenting such a critical relationship between gross investment and technological learning through practical technical experience, brings us face to face with the real nature of the industrialization problem of the under-developed countries. This problem seen as a relationship between cumulated gross investment and creative technical knowledge as Arrow does, is of the nature of the hen and egg age-complex yet this is not peculiar to Arrow's formulation. The complex also shall run through a hypothesis constructed from all the models discussed above, such, as for example, that there is a direct relationship between gross investment and the rate of technical learning. We would argue therefore that a proper conceptualization of the nature of the industrialization task of the under-developed countries brings yet another of the many vicious circles which describe the developmental problems of these countries, hence industrialization in the under-developed countries is slow because of : low level cumulative investment; low level science and technology base; low level technological activity; low level technological knowledge, experience and creativity.

It is important at this point to observe that the recognition of vicious circles have tended to be presented in the development literature as though they were like planetary revolutions following irreversible paths. Accordingly, they have frightened policymakers in the developing world to an

almost fatalistic submission once they are shown to have intervened in the nexus of development actions in these places. It is contended, however, that the said presentation of the vicious circles and the fear they instil are unfounded. It is not denied here, as should be obvious from the discussion so far, that vicious circles are a feature of the under-developed countries - they are a reality of, and in fact inherent in the development situation, but they are neither unassailable nor immutable thereby posing as problems defying all solutions. It is strongly suggested therefore that a concerted and determined attack on a vicious circle launched at an appropriate spot could positively reverse the direction in which the interacting variables of the circle move. The phrase 'at an appropriate spot' is best explained by the following postulatory propositions: the boundary of a vicious circle is differentially resistant to efforts made at breaking it at various points on its circumference; therefore the efforts needed to break a vicious circle varies directly with the resistance of the spot along its boundary at which a breaking assault has been launched.¹ These propositions argue in themselves that it is possible for a policymaker to obtain a fore-knowledge of the differential resistance of the boundary of the vicious circle he is confronted with and to select the point at which to begin an attack in order to achieve the best result. This, as the propositions further suggest, will depend on the strength of the attack which he can muster at the time of the encounter; strength here referring to the resources available for implementing the policy caught in the vicious circle. Where resources are sufficient for only one attack at a time then common sense dictates that it should be made at the weakest point of resistance. On the other hand, if recourses are in abundance and where speed is necessary in a given policy area, or great importance attached to the policy, it may be possible and proper to launch a multiple or an all-out attack at a go, including as the case may be the most resistant spot on the circle.

1. In the vicious circle of industrialization suggested here the strongest point of resistance is the level of gross investment while its weakest point is the level of knowledge, experience and creativity. Strong and weak are used to convey the responsiveness of the variables of the vicious circle to policy measure in terms of speed and overall impact. Thus measures directed at promoting the level of knowledge, experience and creativity will make the quickest positive response on the one hand and have the greatest impact on all the other variables by exerting a pull on them, on the other.

The experience from industrialization policy in Nigeria is that in its early days only a single attack could be made on the vicious circle of industrialization, but this was made at the most resistant spot (cumulative gross investment) hence the heavy investment in industry during that period did not achieve much compared with later years. This will be illustrated in Chapter 4. As the industrialization policy evolved, and as more resources became available from oil revenue, the attack was spread to cover the entire circle (again in Chapter 4). This is why it has been found suggestive to organize the empirical data on the subject of this study, industrialization policy in Nigeria, into three strategies (and they reflect the variables of our vicious circle of industrialization): the investment strategy, the technology strategy, and the manpower strategy; which are now discussed in the following three chapters.

CHAPTER FOURTHE INVESTMENT STRATEGYINTRODUCTION

The central focus of the arguments presented in this chapter is that Nigeria's investment strategy has since 1960 been pursued within a planned-mixed-economy framework. Details of how this approach has been used as a basis for government intervention in the economy and the actual programmes implemented to achieve the stated goals of the strategy are provided and supported with data. These details may be usefully introduced with an overview of some of the political and policymaking issues which arise from the choice of this approach to the investment strategy.

It was suggested in Chapter One (p.12) that countries all over the world today fall under one or other of three politico-economic systems, that is, capitalist market economies (the free enterprise system), socialist planned states (Central command system) and the mixed economy nations.¹ The choice of one option rather than another has been determined for countries by their historical experiences, as is the case with the choice of mixed economy in Nigeria in its earlier days of existence as an independent state. The mixed economy was the system operated by the country's colonial government and was the basis of its Ten-Year Plan (1946-56) launched in 1945. The system (that is mixed-economy) was therefore accepted without question as part of the colonial heritage. As will be seen shortly, the Balewa government (the first post-independence government) was quick to emphasize that mixed-economy was to be the basis of development planning in Nigeria. The military government that overthrew Balewa in 1966 and the two other successive military governments all accepted mixed-economy as the basis for planning and administering Nigeria's development, including industrial development; this point was emphasized in the plans. However, in the processes leading to the handover of government back to the civilians the issue of whether or not mixed-economy should continue to provide the foundation for development planning generated a heated debate among those

1. It was suggested (p,12) that the mixed-economy may be difficult to operationalize ideologically as indeed has been the case in Nigeria. It is nevertheless a useful category in the ideological classification of nations.

who drew up the constitution of the Second Republic. Some members of the Constitution Drafting Committee (C.D.C.) composed mainly of radical intellectuals felt strongly that Nigeria should break ranks with mixed economy in favour of a centrally planned socialist command system but this met with the stiff opposition of those who would not only prefer to continue with mixed-economy but would even want it moved closer to the free enterprise system. This second group of people who also were in the overall majority within the C.D.C. were made up largely of business owning elites but they were also able to get the support of some professionals and other members of the intelligentsia within the C.D.C. In the end, however, mixed-economy was retained in what may be seen as a compromise solution. The details of these issues and their implications for policymaking generally in Nigeria are discussed in Chapter Seven. It is nevertheless useful at this point to comment briefly on the more important questions raised by the issues in the light of the policy theories discussed in earlier chapters.

One important lesson to be learnt in the analysis made in this chapter is that mixed-economy as a basis for government intervention in the Nigerian economy has a different motive for the two main actors in the Nigerian policy process. For the planners and other technocrats, mixed-economy is seen as a means to rapid industrialization because it enables the government to supply missing elements such as entrepreneurship and capital both of which were acutely lacking in the industrial sector at independence and indeed throughout the period covered by this study.¹ For the planners also, the interventionist mixed-economy makes it possible to guide private investment in the direction desired by the government. When however, we turn to the politicians² and the business elites³ we find that these technocratic economic objectives are only secondary motives. To them their primary interest in the mixed-economy is that it provides an ample opportunity for politics to be used as a means for capital accumulation through the manipulation of government machinery in various ways, including outright corruption to prevent non-implementation of policies or to secure the formulation

-
1. All the development plans from the first to the fourth recognize entrepreneurship and capital, especially their distribution between low level and high level technology as major problems confronting industrial development.
 2. 'Politicians' is used here to include military men who occupied political positions during the 13-year period they (the military) governed the country.
 3. They will be shown later to have penetrated the policymaking circle and to have secured enormous influence over policies.

of favourable economic policies such as low taxation, the provision of investment capital, and the other benevolent measures all of which go to make business far more lucrative than would normally be the case. Important within the business group are the foreign interests who favour the mixed-economy because it enables them to influence policy by acting both through Nigerian businessmen and the politicians. One basis for the important conclusion drawn here regarding the preference for the mixed-economy by business interests and the politicians is derived from the fact that in the C.D.C. debate referred to above the capitalist oriented members did not propose free enterprise as an alternative to the command system suggested by the radicals. Rather, as we suggested, they preferred a more private enterprise accommodating mixed-economy and this is exactly the language with which the latter was included in the Constitution of the Second Republic (Section 16 (1)) as Nigeria's economic objective.¹ What has been said so far about mixed economy, planning and interventionism in the investment strategy pursued in Nigeria illustrates the statement made in Chapter One (p.11) regarding what constitutes public policy and how it is related to ideology. Thus in choosing the mixed-economy the Nigerian policymakers were at the same time rejecting the free market and the command systems as instances of public policy being 'whatever governments choose to do or not to do' (Dye 1978:3) or 'as the course of action pursued under the authority of governments....' (Heclo 1972:5). It has also been shown that mixed-economy has generated an ideological debate between the socialist inclined Nigerian elites and their more private enterprise inclined counterparts. It has been shown as well that policymaking involves a plurality of actors that may or may not share the same motives. Specific evidence about these matters are provided in the analyses made in this chapter, and they are discussed further in Chapter Seven. Finally, the investment strategy

1. See Chapter Seven, p.232 for the full quotation of this provision. The chapter also discusses the full implications of the provision. It will be shown that mixed-economy enabled an alliance of politico-economic relationship to develop between policymakers and business interests both foreign and indigenous throughout the period covered by this study and that the relationship grew stronger as it moved from the First Republic through military rule to the Second.

bears the characteristics of some of the policymaking models discussed in Chapter Two. It is rationalistic as it is based on planning procedures; it is incremental as each plan builds upon the programmes of earlier plans; it is institutionalistic as the strategy relies on elaborate institutional machineries for implementation and it is elitist as the philosophy of the strategy expressed in mixed-economy is chosen by the elites to serve, in the case of the political and the business segment of that group, their own interests. The discussion which follows clearly illustrates these characteristics, especially in the case of the first three models. On the other hand, the full elaboration of the elitist characteristics and implications of the investment strategy is discussed in Chapter Seven from the broader perspective of the Nigerian policy process as a whole.

Interventionism and Industrialization Policy in Nigeria

The existence of public enterprises cannot today be presumed to conform to a simple scheme of an ideological divide between planned and market economies; interventionism has increasingly become a common feature of both. In the underdeveloped countries the motive for government intervention is even further away from being solely ideological. Hence an examination of the motives for government intervention in the economy of their countries would reveal a wide variety in general and an even wider variety for the under-developed countries; in particular, in the industrial sector of their economies. The reason for this is the great difference which exists among these countries in their resources base and the level of economic development they have attained. The point being stressed, however, is that interventionism has been part of the economic strategy of both the less endowed and the more endowed with resources among these countries on the one hand, and the less developed, as well as the more developed, among them on the other. The following are among the motives frequently stated for intervention in the economy of the developing countries (Lal: 1980):

1. To fill the entrepreneurial vacuum created by the inability or the unwillingness of the private sector to invest in industry. On the one hand the lack of capital either from savings or borrowing from financial institutions makes it difficult for indigenous investors to raise the large funds needed for industrial investment. On the other hand, foreign entrepreneurs prefer to invest their capital in the commercial and service sectors where profits are quick, especially in the short run, and risks minimal.

2. To correct racial imbalance in the ownership of industrial assets, where as in Malaysia, one ethnic group dominates business life. This may be a serious problem for a government where the entrepreneurial group is a racial minority, as again is the case with the Chinese in Malaysia. The specific objective being sought in situations such as these is the incremental redistribution of industrial assets.

3. To limit the extent of foreign ownership of business assets. The argument often advanced is that a large proportion of foreign ownership of these assets poses a threat both to national sovereignty and the development of indigenous entrepreneurship, particularly in large-scale manufacturing. These fears have been validated by empirical studies of the consequences of MNCs operations in the developing countries. Studies such as those of Morris et al. (1976) in 'The Politics of Nationalization: Alcan vs Guyana', have shown that MNCs may hold the government of a host under-developed country to ransom and force it to pursue policies different from its chosen options. Akeredolu (1975) and Biesteker (1981), particularly the latter with regard to manufacturing industries, have attested in their studies to the undermining of indigenous entrepreneurship by the activities of foreign enterprise in Nigeria.

4. To align a country's economy with its ideological stance. This is the case where socialism is equated with public ownership. Thus socialist proclamation in many developing countries has been followed by a spectre of nationalizations which greatly expand the public sector. Egypt, Tanzania, Zambia, Guinea and India are familiar examples of such countries. Usually nationalizations are limited to a so-called 'commanding heights of the economy' which often include banking, plantation agriculture, large-scale manufacturing and large-scale commercial enterprises; leaving the private sector free to operate outside these commanding heights. Socialism and mixed economy have, therefore, become synonymous for many socialist under-developed countries. However, some countries which have not proclaimed the socialist ideology may nevertheless pursue mixed economy as an official policy. The Nigerian constitution, for example, names that country a mixed economy, and designates commanding heights of her economy which only the government may undertake. The private sector, too, has been left free to operate in any area other than the commanding heights. As we shall see shortly, mixed economy has become the centre towards which Nigeria's industrialization policy gravitates.

5. To nurse industry through initial difficulties. In some countries the government may adopt a policy of transferring such industries to the private sector once the initial difficulties have been overcome. Something similar to this is in the pipeline in Nigeria. The Ministry of Science and Technology is planning to set up factories to prove the commerciality of newly discovered technologies by its research establishments and to transfer

these factories to private Nigerian manufacturers once they have been fully established. On the other hand, governments may become involved inadvertently in the economy after rescuing bankrupt concerns in the private sector.

6. Finally, the government may become an entrepreneur through a planned industrial development in order to eliminate the friction and wastes of the private enterprise system (Hughes : 1978). The argument is that the failure and bankruptcy which may arise from the investment mistakes of private entrepreneurs is too costly for resource-scarce under-developed countries. Frequently, however, public enterprises end up with more mistakes and bankruptcies in these countries. This creates a dilemma of choice for their governments as to which of less, or more, intervention best suits their economic conditions.

Not all of the above objectives may obtain in each case of intervention. The objectives emphasized either explicitly or implicitly often reflect the economic and political circumstances which prompted interventionist action in the first place. In the case of Nigeria, only numbers 1, 3 and 5 of the above objectives can be discerned in the official policy of the government. This is explained by the historical structure of the economy.

The Nigerian economy had since the colonial days been dominated by foreign private capital which in the pursuit of quick yielding, risk free investments concentrated more on commerce and services compared with manufacturing industries. Indigenous entrepreneurs on the other hand, lacked the kind of securities demanded by the commercial banks, which were themselves largely foreign owned. This means that most of them could not raise their investment capital through the banks. This structural imbalance in the ownership of business assets generally and the sectoral distribution of investment capital was a major force behind the enactment of the Nigerian Enterprises Promotion Decrees (1972 and 1977). The two most important implications of the decrees have been to limit the extent of foreign domination of the economy and to cause more investment capital to flow into manufacturing activities both from foreign and indigenous investors.¹ Another implication of the decrees is that their implementation brought the government into more direct participation in the economy. The decrees had required

1. Foreigners who were previously in commerce and small scale manufacturing moved their assets into higher level manufacturing and Nigerians took their places. Other Nigerians became partners in foreign-owned higher level manufacturing enterprises.

foreign businesses to transfer those enterprises that are below a given minimum size to indigenous investors and the government, to ensure that the latter is not hamstrung by the lack of investment funds to purchase businesses due for sale decided to acquire a controlling share in most of the commercial banks. The aim of this action is to enable the government to use its position as a major shareholder to influence the lending policies of the banks in favour of the indigenous businessmen. Moreover the government itself bought affected businesses for which there were no bidders. These actions, therefore while limiting the extent of foreign domination of the economy also meant that the government was filling an entrepreneurial vacuum. Special reference will be made to the consequences of the Enterprises Promotion Decrees for class formation in Nigeria in the concluding chapter.

Nigeria's approach to interventionism has been a planned mixed economy even during the colonial era, hence the development plans drawn in that period assigned roles to both the private and the public sectors in the economy with the dominant role given to the private sector; a condition that endured long after the end of colonial rule. The 1962-68 development plan, the first by an independent government that has for that reason been called the First National Development Plan,¹ contains a forceful statement (p.21) about a mixed economy for Nigeria.

Nigeria's economy is a mixed one. The governments have taken an active part in providing not only the social but also the basic economic services, such as electricity. The attitude of the governments of the federation, however, is entirely pragmatic and accepts the desirability of a mixed economy. At the same time, the governments are convinced that no amount of government activity can effectively replace the efforts of a broadly based progressive private sector.

On the basis of the above, the plan further states, action was to be taken to 'stimulate and mobilize private domestic savings, to increase the flow of capital in those directions which conform with the overall priorities of the plan, and in general to accelerate the growth of the private sector' (pp.21-22).

It can be surmised from the above quotations that the objective of government intervention is to use public policy to create conditions favourable to the growth of a strong private sector. To be noted in this regard is government intention to stimulate and mobilize private domestic savings.

1. Nigeria had its first planning experience when in 1945 the colonial administration launched the 'Ten-Year Plan of Development and Welfare of Nigeria, 1946-56'.

This, as the experience of Britain and some other Western countries have shown, was responsible for the growth of a strong and independent private capital that laid the foundation for their economic development generally and their industrial development in particular, and the framers of the First National Development Plan must have been influenced by this as part of their colonial hangover. In the under-developed countries generally private domestic savings is often lacking and this has been widely included in the vicious circle of poverty thesis which attempts to explain the problems of the economic development of these areas. In the case of Nigeria, the lack of private domestic savings is responsible to a great extent for the inability of the country's businessmen to raise the large sums of investment capital required for industrial undertakings referred to above.¹

Since stated in the first plan the desire to use a planned mixed economy to guide both private and public investments have been re-emphasized in subsequent plans (2nd, 3rd and 4th), and this has evolved to a high level in the manufacturing sector for which an 'indicative plan' showing government investment priorities in the sector has been separately formulated and included in each of the above plans to guide private investment in manufacturing activities.² This will be discussed in detail below.

The question that must now be addressed is the justification for government intervention in Nigeria's industrialization process in the manner depicted above. Teriba and Kayode (1977:324) have observed that there is a high degree of congruence between economic development and industrialization and that a concern for the one is necessarily also a concern for the other. This observation seems to reflect the attitude of the Nigerian policymakers to development policy for the kind of critical inter-relationship between economic development and industrialization suggested in it has been acknowledged and stated in policy documents by successive Nigerian governments since 1960.³ Accordingly, each government has been committed

-
1. 'Inability' as a hypothesis for explaining the minimal indigenous investment in manufacturing industries will be developed fully later in this chapter.
 2. While the other plans make general reference to the mixed economic framework the 4th Plan states explicitly (p.142) that the industrial sector would be organized within the context of a mixed economy. This position was re-stated and emphasized by the Director of the Investment Promotion Centre; a division of the Federal Ministry of Industry which is discussed below (interview 19/8/82).
 3. It has, for example, been stated in all the development plans as well as in The Nigerian Industrial Policy and Strategy : Guidelines to Investors, (1980).

to a programme of rapid industrialization as a means of fostering sustained economic growth and development. However, the manufacturing industries of Nigeria (and this is the core of any industrialization programme), suffer from ailments for which interventionism appears to be the most effective cure. These ailments were first explicitly stated in the 3rd Development Plan. That plan noted that the manufacturing industries in Nigeria were constrained by (pp.152-3):

1. inadequate infrastructure;
2. restrictive industrial policy and administrative practice;
3. shortage of industrial manpower and indigenous entrepreneurs in the sector;
4. the slow implementation of public sector manufacturing projects.

The plan also noted that the output structure of Nigeria's manufacturing industries lags behind those of countries with which she is at the same level of development. It was observed that the share of low technology light industries was above average, and that there was almost complete absence of engineering industries (p.147). The few Engineering industries were predominantly of the touch-up-assembly-activity type, and the weak impact which they have on the rest of the economy calls for greater intervention in order to maximize their benefits (Teriba, et al., 1981 : 107). Similarly, it can be argued that greater intervention is required to remove the four constraints mentioned above: three of them (numbers 1, 2 & 4) are direct failures on the part of the government and the fourth (number 3) has been the result of an improper education system generally and business education in particular. Thus in addition to the desire for rapid industrialization the very process of the industrialization itself has necessitated government intervention. What has, therefore, emerged in Nigeria is an industrial policy of intervention first through planning in which the government sets the pace and characteristics of industrialization and then through public sector investment either directly in industry or in institutions designed to serve as encouragement and aids to the private sector¹ which is seen as a partner in a mixed economy.

1. It is also aided and encouraged through a wide range of policy instruments which will be discussed along with these.

The foregoing is an attempt to explain very broadly the reason and justification for government intervention in the industrial sector of the Nigerian economy; especially the manufacturing industries. The points raised are that intervention appears to be the logical choice available to the Nigerian policymakers; it takes place within the context of a planned mixed economy and its main objectives are to fill an entrepreneurial vacuum and to energize the private sector into more active manufacturing investments. This provides the background against which Nigeria's investment strategy can be usefully analysed. That analysis is undertaken in the rest of this chapter. First public sector investment programmes are analysed in terms of their volume and contents from the First National Development Plan (1962-68) up to the Fourth (1981-85). In the latter case actual investment is analysed only for the first year of the plan, that is up to December 31st, 1981. Secondly, private sector investments are analysed again in terms of their volume and contents, but this is divided into foreign private investment and private indigenous investments. The background to the analysis is provided by tracing the history of the role of the private sector in Nigeria's economic development, and how it has been brought into planned industrial development. Thirdly, the policy instruments and institutions which have been used to aid and encourage private sector manufacturing investments are described in detail. In the case of policy instruments, greater attention is given to how they are administered while the focus on institutions is on their activities. Finally, an evaluation of the impact of the investment strategy on industrialization is undertaken. Quantitative data is analysed to measure selected indices of industrial development.

INDUSTRIAL INVESTMENT WITHIN THE FRAMEWORK OF A PLANNED MIXED ECONOMY

It has been stated repeatedly that development planning has provided the medium within which industrialization policy is pursued in Nigeria. This will be illustrated presently. It will be shown that industrialization has been a major component of each development plan in terms of resource allocation. The extent of the actual disbursement of the allocated resources and their application to the development of industrial or more specifically, manufacturing projects in the public sector, will be discussed and illustrated for each of the first, second, third and fourth Development Plans in turn. This will also be repeated for the private sector later.

The Public Sector

The First National Development Plan covered the five years between 1962 and 1968. Its public sector capital expenditure proposed was N1350.7m. out of which N503.8m (37.3%) was to be spent on three activities (primary production; trade and industry; education) designated as 'areas of major emphasis'. These activities in that order received N183.6m (13.6%), N180.6m (13.4%) and N139.6m (10.3). Thus trade and industry ranked second in terms of capital allocation. Its N180.6m was the joint allocation of the Federal Government and the three Regional Governments which existed at that time and was distributed as follows: Federal Government N88.6m; Northern Region N19.72m; Eastern Region N25.86m, and Western Region N46.88m (First Plan, p.41). As the plan period progressed, however, it turned out that the above capital expenditure proposals were not going to be fulfilled. At the end of the plan period, the Federal Government was only able to invest N24.8m representing 28.2% of its proposed figures (Second Plan, p.13). The Eastern and Western Region respectively invested N20.56m and N27.78m representing 79.5% and 59.2% of their own proposals. Only the Northern Region exceeded its allocation. It actually spent N21.92m an excess of 11.1%. Overall actual capital expenditure by all governments during the plan period was N95.08m; a shortfall of 47.3%. It should be noted that although all the three priority areas had shortfalls, that of trade and industry was highest. Its 47.3% shortfall compares unfavourably with the 42.8% and the 34.6% recorded in primary production and education. Public sector commitment to industrial investment stands out more clearly during the second plan when industry was treated separately. Out of the N2050.7m capital expenditure proposed under the plan, industry alone has N172.2m, that is 8.4%. The figures represent the investment proposals of both the Federal Government and the Governments of the twelve states into which Nigeria had earlier been divided. The twelve State Governments, together allocated N90.5m to industrial capital formation. This is 52.6% of the total public sector capital programme. The projects in the States' programme are very varied. Their main manufacturing projects include bicycles, wire and cable, textiles, oil mills, tomato and fish canning, the manufacture of starch and wooden furniture. The Federal Government programme which accounts for the remaining 47.4% (N81.6m) contains more ambitious projects, some of which were in heavy engineering.

In considering actual capital expenditure, we find that there is once more a shortfall for industry even when overall the proposed figures were exceeded. Only N88.5m was actually spent on capital formation in industry against a total of N2236.8m. In percentages, while there was a shortfall of 49% for industry, overall capital expenditure showed an excess of 9.1%. Also in terms of actual total expenditure, the share of industry is only 4% during the plan period. These poor performances are blamed on the civil war which brought all the projects in the affected areas to a standstill (Third Plan).

The third plan is a gigantic forward stride in terms of the volume of the capital expenditure proposed. A total sum of N32.9b was to be spent on the capital programmes of all governments. This is divided into four broad categories: economic, social, regional development and administration. Manufacturing and crafts, together with agriculture, mining and quarrying, transport, communications, power, commerce and finance, constituted the economic category for which N22.5b (i.e. 62.3% of the total expenditure proposed for public sector capital formation) was allocated (Third Plan, p.348). Manufacturing and craft took N5.3b and was the second largest single item in the economic category. Its figures accounted for 16.2% of total capital formation and 25.9% of the allocations to this category. Of the total amount proposed for manufacturing craft, the Federal Government was to be responsible for 92.3%. This is higher than its proportionate share of the total expenditure proposals in the economic category which was only 85.3%. Thus the Federal Government stressed first the economic category generally and manufacturing and craft in particular. The states on the other hand stressed the social and regional development categories. This, it is said, is because the Federal Government is in a better position to handle facilities in the areas of heavy industry, power, communications and mining. Some of these areas were in fact exclusively reserved for the Federal Government by the country's constitution.

Shortly after the plan period had begun, the number of states was increased from 12 to 19 and the expenditure proposals for the public sector capital formation were revised to reflect this change. Generally, the figures were revised upwards. This is perhaps necessitated by the additional capital requirements of the newly created states. The revised figures now proposed were N33.9b for the capital programmes of the Federal Government

and N9.4b for those of the States, raising the proposed grand totals from N32.9b to N43.3b. However, as has been the case with the other plans, shortfalls were recorded in actual capital expenditure at the end of the plan period. On the whole, only N29.4b was actually spent by all governments representing a 68% rate of fulfilment. As the revised figures are not available sector by sector, the level of fulfilment for the manufacturing industries cannot be shown. However, actual expenditure on capital formation in the latter by the Federal Government was N2,257.2m while all the State Governments spent N312.5m, meaning that the two governments respectively spent 10.1% and 4.4% of their actual capital expenditure on manufacturing industries. Also the overall share of these industries in actual public sector capital expenditure is 8.7%. This is the background against which the 4th Plan is formulated.

One way in which this plan is superior to the third with regards to planned industrialization is that the investment programmes of the local governments for the manufacturing industries is included in the public sector capital allocation for the first time. To start with, why has local governments' investment programmes never entered the previous plans? The answer is that planners had looked at individual local government's manufacturing programmes and decided that they were too minor to be taken into account for planning purposes. With the increased resources put at the disposal of the local governments following the 1976 reforms, it became clear that if not in their single numbers, the aggregate of local government programmes was sizeable, and this turned out to be correct, as the planned capital programme of the local governments for manufacturing industries amounted to N88.3m. Although this was only 1.1% of public sector capital programme for the 4th plan (the Federal Government had planned 6,368m - 81.5%, while the State Governments planned N1,355.7m - 17.4%), it is nevertheless a huge sum of money in an under-developed country.¹ With the investment programmes of the federal, states and local governments for the manufacturing sector planned, and with indicative plans drawn for the private sector, planned industrialization in Nigeria has become very comprehensive.

The problems and constraints of the manufacturing industries stated in the Third Plan remained very much the same when the 4th Plan took off. In particular manufacturing industries continue to be dominated by the most elementary activities with very little engineering and other heavy industries.

1. The smaller and poorer nations of the developing countries may not budget as much for their capital programmes within the same period of time.

Serious efforts to tackle this most fundamental problem began during the third plan, when major projects of hardware industries were started. Among them are two steel complexes (sited at Ajaokuta and Alaja); three steel rolling mills (in Jos, Oshogbo and Katsina); four truck and tractor assembly plants (in Kano, Ibadan, Enugu and Bauchi); and a machine tool manufacturing factory (again at Oshogbo). All of these projects continued into the Fourth Plan which is even more committed to heavy industries than its predecessor. Of all the projects listed above, only three had not taken off prior to August 1982 - the Ajaokuta complex and the Oshogbo projects. In addition to those which have taken off are two passenger car assembly plants (located in Kaduna and Lagos) which were started in the second plan and completed in the third. The intention of the government in all these is to bring about such interaction between the steel projects and the assembly industries as will alter the structure of the manufacturing sector in favour of heavy engineering. Thus it was stipulated that 'as a matter of policy, these assembly plants are required to manufacture component parts progressively until total manufacture in Nigeria is attained' (Minister of Industries, 1982). The programmes of the manufacturing industries in the fourth plan are a further manifestation of this commitment of the government to solving the structural problem of the Nigerian manufacturing sector. Hence, the Federal Government's manufacturing programme included such projects as basic steel and metallurgical products; oil refineries and petrochemicals; agro-allied, engineering and chemical projects which together accounted for 76.5% of this programme (Fourth Plan, p.148). Basic steel and metallurgical products alone amounted to 47.6%.

Data collected during the summer of 1982 reveal that as at 31st December 1981, the Federal Government held shares in 42 manufacturing companies whose total assets were valued at ₦733.1m. More than half of this investment is made in six companies in which the Federal Government holds between 90 and 100 per cent of the share capital (Statement No.7, Federal Ministry of Finance Incorporated, Lagos). This huge cumulative gross investment, according to Solow's embodiment thesis on the one hand, and Salter's gross investment argument on the other,¹ should greatly increase Nigeria's technological efficiency and productivity. The importance of this lies in the fact that an industrialization policy can hardly succeed without an effective programme for enhancing technological capability. These points are taken up in the chapter on technology strategy.

1. These were discussed in the introduction to Part Two.

The Private Sector

This section examines the role played by the private sector in the investment strategy of Nigeria's industrialization policy. First it examines the manner in which private sector investment has been co-ordinated through what has been described by the Nigerian planning authorities as 'indicative planning'. Secondly, it analyses private sector capital formation in the manufacturing industries especially, and this is divided into foreign investment and indigenous investment. In both cases attention is directed to the extent to which private sector capital formation helps to solve the structural problem of manufacturing industries.

Nigeria's planning experience we said started in 1945 with the 'Ten-Year Plan of Development and Welfare of Nigeria'. A notable feature of that plan is its complete neglect of the private sector, although this sector dominated both the formal and the informal sectors of the Nigerian economy at that time. This dominance in fact lasted until the Third Plan when the public sector took over the first position in the formal economy. In 1966-67, for example, private investment accounted for 87.5% of the formal sector - mining and quarrying, manufacturing, building and construction, and large scale commerce (Second Plan : 275). In terms of employment, the above activities together with the informal sector (made up of peasant agriculture and petty trading which are completely privately organized) accounted for 95% of the total (2nd Plan : 275). Although the 1962-68 plan proclaimed a mixed economy, no attempt was made to co-ordinate the private sector in that plan even in the formal activities which because they are highly organized can be easily co-ordinated. Nevertheless, the private sector made an enormous contribution to capital formation during that plan. Its ₦1611.8m capital expenditure was 54.4% of total capital investment made in the plan. The sector in spite of the civil war also recorded a 15% growth rate in its capital formation within the period covered by the plan.

The attempt to co-ordinate private sector investment through the development plans was first made during the Second Plan when the idea of an indicative plan for the private sector was hatched and put into operation. Indicative planning for the private sector was explained as 'the establishment of quantitative targets for strategic sub-sectors within the sector'. The need for consistency of such targets is recognized and it is to be ensured 'through a set of interlocking tables for each industry and for the

economy as a whole' (p:1180). The aims of an indicative plan should be (Second Plan: 279):

- (a) To harmonize public and private investment decisions and to ensure their consistency with each other. This is necessitated according to the plan by the functional interrelationship and interdependence of the various sectors of the economy.
- (b) To give private investment decision-makers greater confidence in the economy by the information conveyed through the plan.
- (c) To reduce the divergence between public and private interests on the one hand and between indigenous and foreign investors on the other. This, it is argued, is necessary for an economy such as Nigeria's with high growth potentials in, among others, a manufacturing sector dominated by foreign investors. It was emphasized that indicative planning for the private sector differs fundamentally from the public sector plans. In the former 'government mainly seeks to influence decision-makers in that sector through broad policies'; the main aim being to 'reduce the degree of potential conflicts between the two sectors .

Indicative planning, when it first began, was limited to influencing the quantum and composition of the investment undertaken by the private sector. Since then it has become more refined. In the Third Plan, for the example, the indicative plan went beyond mere fixing of aggregate investment target for the private sector to showing government investment preferences by fixing sectoral targets according to a priority scale - building and construction; manufacturing and craft; agriculture, forestry and fishery; distribution; mining and quarrying; and road transport.

In the Fourth Plan, indicative planning has been further extended. There, in addition to a schedule showing indicative sectoral distribution of investments in which manufacturing and craft topped the list, it is stated that government will give special encouragement to investors engaged in agro-allied industries and the manufacture of automative parts and accessories (p.408). Finally, a long list of manufacturing projects which the government will actively encourage is attached to private sector investment programme. This list contains 88 projects, 79 of which are in manufacturing, especially in mineral and agro-based industries. The facts provided so far about indicative planning suggest that one of its major objectives has been to advance the progress of the manufacturing sector.

It is clear as well that indicative planning is being used to foster Nigeria's policy of encouraging high value, added in its economic activities as the projects to be actively encouraged referred to above are selected on the basis of the country's natural resource endowments. This index (value-added) has been widely used to measure the performance of the country's manufacturing sector by both the government and academics and is among those that shall be used for the same purpose in this study. The political dimension of indicative planning is discussed in Chapter 7. Meanwhile the magnitude of private sector investment in capital formation is analysed and discussed with particular reference to the manufacturing industries. The method used here is first to analyse the aggregate of private investments and then to separate them into their foreign and indigenous components.

It was stated above that the Nigerian economy was dominated by the private sector during the colonial period and that this situation remained unchanged for some time after independence. Thus private sector investment was larger in the First Plan and this was repeated again in the second. During the First Plan, it was shown above, the private sector accounted for 54.4% of capital investments. On the basis of this performance, capital allocation during the Second Plan gave a greater share to the private sector. Thus ₦1.56 and ₦1.632b, a ratio of 49:51 were respectively allocated to the public and the private sector in the capital programme of that plan (2nd Plan : 267, 280). At the end of the plan period, each sector exceeded its allocation with the private sector increasing its proportionate share. Thus, a total of ₦5.3b was actually spent on capital formation, out of which the private sector spent ₦3.1b; a 58.4% share (3rd Plan : 12). The poor co-ordination of private sector activities during the first two plans has made it impossible to determine the proportion of the private sector capital outlay that went into manufacturing. This problem was overcome during the Third Plan as indicative planning became more perfect. Thus, of the 10 billion naira allocated for private sector capital programme in this plan, 2 billion or 20% was devoted to manufacturing and craft. Sectoral break-down of actual expenditure at the end of the plan is not available; but if we assume that the proportion of the allocations guided actual expenditure, then 20% of the ₦9.0b which was the net private sector capital outlay would have gone into manufacturing. Capital allocation in the Fourth Plan to the private sector is only slightly higher than in the third. Here ₦11.5b is allocated out of which ₦3.0b or 26.1% is to be spent

in manufacturing and craft, and as was pointed out before, this is the highest sectoral allocation in the private sector capital programme. As the Fourth Plan is still in progress it is not possible yet to show actual capital outlay expended within it; nevertheless the preceding analysis has established to a reasonable degree the extent of the private sector involvement in achieving Nigeria's investment strategy.

The next logical task following from the above is, therefore, to see how much of the involvement mentioned is attributable to foreign private investments on the one hand, and Nigerian private investments on the other. This is particularly necessary in the light of the attempt made in Nigeria to alter the pattern of private sector investments in terms of their distribution between foreign and indigenous components through public policy. Here we refer once again to the Nigerian Enterprises Promotion Decrees already discussed. These decrees according to a recent statement by the Minister for Industries, 'was not in any way to discourage foreigners from participating in our economy; rather it was to vest the controlling heights of our economy in the hands of Nigerians and to ensure that foreigners and Nigerians engage in lasting and mutually beneficial joint ventures' (Press Conference : 17/8/82).

The data available for analysis in the succeeding discussion is not balanced between foreign and indigenous investments. Central Bank figures which are the main sources for this analysis are much more detailed for foreign investments than their Nigerian counterpart. This is easy to explain. The fact that foreign capital dominates manufacturing activities should mean that it attracts the greater attention of the investment analysts of the bank. It is hoped, however, that the discussion of the special aids and encouragements designed to bring indigenous businessmen into more manufacturing investments, undertaken in the next section of this chapter, will lead to a fuller presentation of the extent to which indigenous investments have contributed to the realization of Nigeria's industrialization policy.

Foreign Investment in Nigeria's Manufacturing Industries

Nigeria is a leading centre for foreign investments in Black Africa. In his study of the developmental consequences of the MNCs investments in the developing economies, using the Nigerian example, Biersteker (1981 : 69) found that a total of \$2.1b (U.S.) (or 22% of all foreign investments made in Africa in 1972) was invested in Nigeria. He also found that the country doubled its stock of foreign investments between 1967 and 1972 following Brazil, Venezuela, Mexico and Argentina as the fifth most important centre for foreign investments in the under-developed world. The analysis that follows is mainly concerned with foreign investments in manufacturing and related activities. It emphasizes the size of foreign investments and its structure in terms of the kind of industries and the share capital held in those industries.

The large size of the inflow of foreign private capital into Nigeria has been noted above. Between 1970 and 1975, a total of ₦9,527.1m worth of investments was made in Nigeria by foreign private investors (Central Bank of Nigeria, Economic & Financial Review, Vol.17, No.1, 1979, p.18). Starting with just ₦1,003.2m in 1970 foreign investments rose steadily until 1975 when they more than doubled in size, reaching ₦2,87.5m. The share of the manufacturing industries in these high investments have been very impressive, although unlike the aggregate figures, manufacturing investments have tended to fluctuate within the period under review. The lowest manufacturing investments were made in 1970 when they stood at ₦224.8m or 22.4% of total foreign investments for that year. 1975 on the other hand recorded the highest absolute investments with ₦506.2m, but this represented only 22.1% of the year's totals. The highest proportionate manufacturing investment was made in 1971 with ₦378.8m (28.6% for the year). On the whole, a total of ₦2,162.5m was invested in manufacturing. This is roughly 23% of the total volume of cumulative foreign investments for the six-year period (1970-75), which amounted to ₦9,527.1m. This average is even higher for investments in fixed assets where it is about 30%. Also, at least 25% of each year's investments in fixed assets at book value were made in manufacturing. More insight is gained into the nature of foreign investments in Nigeria and indeed its contribution to the success of the country's industrialization policy if the data for investment in fixed assets at cost, separated into specific items of asset is analysed. The importance of this is again stressed in the works of Solow and Salter cited above.

Available data shows that total foreign investment in fixed assets which started with ₦1,199.7m in 1970 dropped slightly to ₦1,036.6m in 1971, and thereafter rose steadily to ₦2,713.7m in 1975. The total for the period (1970-75) was ₦11,492.5m (CBN, 1979, p.22).¹ Out of this, ₦3,355.2m went into manufacturing representing 29.2%. It is useful to see how Machinery and Equipment has fared in all these. That is depicted in Table 4.16. Those assets attracted a total of ₦6,374m, that is, more than half of aggregate foreign investments for the period shown. About the same proportionate relationship exists between the amount invested in manufacturing as a whole and the amount attracted by Machinery and Equipment within the manufacturing sector. Here ₦1,820m or 54.3% went into acquiring machinery and equipment. The ratio of manufacturing Machinery and Equipment to their aggregate value is, however, lower than the high figures just shown. That figure is only 28.6%. If it is recalled on the other hand that manufacturing is only one of seven sectors considered, these figures would appear more impressive.

A related issue to the type of assets accumulated, is the type of activities within manufacturing that has attracted foreign investments. Analysis shows that metal products, basic metal, machinery and electrical machinery, all items important to heavy industries have attracted relatively less foreign investments (CBN, 1979 : 20). On the other hand, textiles, food, non-metallic mineral products, tobacco and beverages have followed one another as the first six items in terms of the volume of investments. It may, therefore, be observed that if Machinery and Equipment has attracted a high proportion of foreign investments, that asset has been accumulated in areas other than those most closely related to heavy engineering. Biersteker (1981) made similar findings in his study. Between 1963 and 1972 he found that the percentage of foreign investments in 'low technology manufacturing' rose from 56.0 to 75.8 and that the corresponding figures for 'high-technology manufacturing were respectively only 0.9 and 12.2. He, therefore, noted that although investment in the latter is rising, the ratio of the aggregate volume of investment between the two is highly disproportionate. It can be argued, therefore, that foreign private investments in Nigeria have been of little help in solving the structural problems of the country's manufacturing industries. Yet, as has been pointed out already the structural re-adjustment of these industries in favour of heavy engineering is a priority goal in Nigeria's industrialization policy.

1. The fixed assets included Real Estate, R/E; Machinery and Equipment, M/E; Furniture and fixtures, F/F; and Motor Vehicles, M/V.

TABLE 4.1

Distribution of Foreign Private Investments According to Each
Type of Asset : Manufacturing Compared with Aggregate

Asset	Manufacturing		Asset	Aggregate	
	Amount (Nm)	%		Amount (Nm)	%
R/E	1,241.0	37.0	R/E	4,002.6	34.8
M/E	1,820.4	54.3	M/E	6,374.0	55.5
F/F	154.4	4.6	F/F	413.9	3.6
M/V	125.4	3.7	M/V	496.2	4.3
Other	14.0	0.4	Other	205.8	1.8
Total	3,355.2	100.0		11,492.5	100.0

Source : Central Bank of Nigeria, Lagos.

TABLE 4.2

Sectoral Distribution of the Proportion of Private Investments
held by Nigerians for the Period Shown (Percentages)

Economic Activity	Year									
	1967	1968	1969	1970	1971	1972	1973	1974	1975	Average
Mining and Quarrying	-	-	-	--	-	1.7	35.0	58.7	62.4	17.5
Manufacturing and Processing	20.0	19.0	40.7	42.7	34.3	43.0	41.6	41.0	47.3	36.6
Agricultural, Forestry and Fishing	29.0	40.7	23.2	42.6	18.4	17.2	18.3	46.1	36.4	30.2
Transport and Communication	80.6	86.9	54.1	49.8	31.8	26.8	41.9	54.2	60.0	54.0
Building and Construction	16.5	15.0	5.9	7.5	4.3	8.7	29.2	36.7	38.7	18.1
Trading and Business Services	1.1	1.4	4.0	5.8	8.6	8.7	14.0	27.1	26.5	10.8
Miscellaneous	43.1	40.5	9.0	15.7	0.1	58.8	27.8	13.9	37.7	27.4
Total	8.8	9.4	19.1	18.8	16.6	24.5	31.5	42.3	43.4	23.8

Source: Constructed from Central Bank of Nigeria : Economic and Financial Review, 1976 and 1979.

Note: Nigerian and Foreign Investments add up to 100.0 in each case.

Private Indigenous Investments in the Manufacturing Industries

It was stated earlier on that Nigerian businessmen occupy a subordinate position in the private capital ownership in their country, and that this is particularly the case with the manufacturing industries. The reasons which have been widely suggested for this by commentators on the Nigerian economic scene can be summed up in the following two hypotheses:

1. Nigerian businessmen have not generally invested in the manufacturing industries because they prefer commerce and the service industries which offer quick returns and contain less risk.
2. Nigerian businessmen have not generally invested in the manufacturing industries because they are unable to raise the large size of the investment capital required in these industries.

The main aim of the analysis which follows then is to test the validity of the above hypotheses. The purpose of this exercise is to establish without doubt, the reason why the presence of Nigerian businessmen has not been felt in manufacturing undertakings. It will also make it possible to comment more effectively on the special incentives which have been designed to attract more indigenous investments into the manufacturing industries. The analysis is undertaken in the following order. First the aggregate share of Nigerian investments compared with their foreign counterparts is analysed for the nine years between 1967 and 1975 and according to the type of economic activity. Secondly, the distribution of Nigerian investments in terms of the size of shareholding is analysed again as they compare with foreign shareholding. Thirdly, the facts established in the analyses are used to assess the validity of the hypotheses being tested. Finally, the reaction of policymakers to the conclusions drawn from the analyses is briefly discussed.

Between 1967 and 1975 the mean percentage share of Nigerian investments in all sectors of the economy is only 23.8% (table 4.2). Its highest average investment is recorded in transport and communication where the nine year percentage average is 54. But this is followed, though with a large gap, by manufacturing and processing for which the corresponding figure is 36.6. This begins to cast doubts straight away on the sustainability of the first hypothesis. This is examined further below. On the second hypothesis we turn to table 4.3 which is analysed on the assumption that there is a direct proportional relationship between the size of a manufacturing enterprise and the size of its share capital. The table shows that Nigerian shareholding is concentrated in small shareholdings. Thus Nigerians hold 56.4% of shares whose value is ₦2.00 but only 26.4% of shares whose value is more than ₦200,000.

TABLE 4.3¹

The Distribution of Nigerian and Expatriate
Shareholding in the Manufacturing Enterprises

Value of Shareholding	Nigerians %	Expatriates %	Total %
	56.4	43.6	100.0
Above 2 upto 2,000	39.0	41.0	100.0
2,001 - 10,000	48.5	51.5	100.0
10,001 - 20,000	33.3	66.7	100.0
20,001 - 40,000	35.9	64.1	100.0
40,001 - 100,000	26.9	73.1	100.0
100,000 - 200,000	25.9	74.1	100.0
Above 200,000	26.4	73.6	100.0
Total	39.5	60.5	100.0

Source : Teriba, O. et al., The Structure of Manufacturing Industry in Nigeria, 1981, Table 6.5, p.91.

TABLE 4.4

Holdings of the Single Largest Shareholders
in Manufacturing Enterprises by Nationality and
Value of Shares : Nigerians and Expatriates

Largest Shareholders' holdings (N)	Largest Proportion held by Nigerians %	Expatriates %	Total %
Under 2,000	49.9	50.1	100.0
2,000 - 100,000	30.7	69.3	100.0
100,000 - 200,000	18.2	81.8	100.0
Above 100,000	23.7	76.3	100.0
Total	36.8	63.2	100.0

Source : As Above, Table 6.7.

1. The data for this and the next table was collected in 1970. They covered 1,320 firms registered in Nigeria. The information revealed in these tables are still valid today in the light of the Enterprises Promotion Decrees, the fundamental law which currently governs foreign shareholding in the country, which admits of foreign shareholding only in enterprises with higher value share-capital; upwards of N400,000.

This position is further amplified by table 4.4, which depicts the distribution of largest shareholders by nationality and value of shares held. As can be seen in that table, the largest Nigerian shareholder held only 49.9% of the shares of his firm, and this again is in shares with the lowest value; under ₦2,000. But as the value of shares moves up, the proportion of his firm's shares held by the largest Nigerian shareholder drops to only 18.2% for shares of between ₦100,000 and ₦200,000 in value and to 23.7% for shares whose value is above ₦200,000.

One is led to ask, from the facts just presented, whether given the option Nigerian investors would choose to occupy a subordinate position in the distribution of manufacturing assets in their country. Akeredolu's work (1975, p.77) suggests strongly that the answer to this question should be negative in the light of the following proposition which was tested and found to be valid:

Many indigenous [Nigerian] entrepreneurs lack capital not necessarily or principally because they are unable to generate sufficiently 'feasible' projects but for other more fundamental reasons, most important of which is that they themselves are not regarded by many prospective commercial lenders as what one might call 'feasible projectors'.

A vital determinant of who is a 'feasible projector' was found to be education; but in Nigeria, as in many other countries of the under-developed world, it is common knowledge that those with education would rather go for the secure income offered by employment in the public service and other salary paying institutions. To use education as a condition for giving investment loans seems, therefore, a deliberate attempt to exclude the Nigerian businessmen, most of whom scarcely have any formal education,¹ from enjoying that facility. This again is in line with Akeredolu's contention. He cited P.T. Bauer, who as far back as 1954 had written that (West African Trade, p.183):

...there are circumstances in which African borrowers find it difficult or even impossible to obtain short-term bank accommodation, even if their financial position is sound and they are prepared to disclose their business to the bank manager.

Bauer's conclusion had been that the above attitude resulted from a conservative outlook by the bankers, and as Akeredolu contends 'that conservatism and its implications for the indigenous businessmen are still there' (p.81).

1. Akeredolu's study also established this.

On the basis of the analysis and discussion presented so far, the following conclusions may be reached:

1. That the first hypothesis is invalid. The analysis of table 4.2 shows that manufacturing claims the second highest sectoral investments. Thus Nigerian investors have preferred manufacturing among others to trading and business services, mining and quarrying, and building and construction.
2. That the preference of manufacturing investment by Nigerian investors demonstrated in table 4.2 is hampered by their inability to raise the funds needed for large scale manufacturing through the commercial banks. Thus they have been forced into lesser manufacturing projects with less demand on capital. This validates the second hypothesis.

The minimal presence of indigenous investors in the manufacturing enterprises has not been without policy response. It has been pointed out that a major implication of the Enterprises Promotion Decrees has been to bring more Nigerians into manufacturing investments. This in fact has happened by the design of the decrees. Thus nine of the twenty-two business categories which are exclusively reserved for Nigerians under the decrees are directly concerned with manufacturing activities. Similarly, Nigerians are to have at least 60% equity participation in seventeen other manufacturing industries. Finally the capital shortage obstacle is being removed by such measures as Central Bank directives fixing the proportion of commercial banks' loans that must be given to indigenous investors and, creating financial institutions to give investment loans exclusively to Nigerian borrowers. These points are taken up in the next section which discussed the package of measures which are being used to attract more private investment funds into manufacturing. In Chapter Seven the underlying motives of these measures and their consequences for the Nigerian socio-political system will be analysed.

Government Encouragement for Manufacturing Investments

The task undertaken in this section is the examination of the policy measures which have been taken by the Federal Government to attract more investments into the manufacturing industries; but before we go into that, it is necessary to re-establish very vividly the circumstances which call for these measures in the first instance.

A moment's reflection would show that the pattern of the private sector manufacturing investments discussed in the preceding section and the issues raised therefrom present problems which require a policy solution. The following are the highlights of these problems.

First, the government wants a very active indigenous participation in the manufacturing industries, but this is still far from being the case. Second, the desire of the indigenous investors themselves to participate more actively in the manufacturing activities has been crippled by the 'inability' hypothesis validated above. Third, there is a divergence between the priority ranking accorded manufacturing by the government, and that accorded the same activities by foreign private investors. Thus, while manufacturing has come at the top of private sector indicative plans, it has come very low in the sectoral distribution of foreign investments. This can be seen from table 4.2 which shows the indigenous complement of total private sector investments. According to that table, foreign private investments have the following order of priority: trading and business services; mining and quarrying; building and construction; agriculture, forestry and fishing; manufacturing and processing; and, transport and communications. It should also be recalled that the structure of foreign investments within manufacturing does not reflect the kind of balance desired by the government between light technology and heavy engineering requiring more complex technology.

It is clear from the above, then, that certain characteristics of private sector manufacturing investments are incongruous with the government's investment strategy for that economic activity. Nor do those characteristics present the conditions that planners would accept as economically rational and recommend. The policy response to the problem has been in the form of measures which are designed to encourage the two actors (foreign and private investors) concerned to act in the way compatible with government industrial priority and aspirations in their investment decisions. These measures have, therefore, sought to (a) encourage more indigenous participation in manufacturing enterprises; and, (b) encourage foreign investors to move more of their assets into manufacturing activities.

What follows below is the detailed presentation of the above policy measures. Two groups of measures have been identified, and are now analysed or described as the case may be. They are: fiscal incentives and institutional aids. The analysis undertaken is fairly simple, involving mainly the categorization of the measures into those which are meant to encourage either foreign or indigenous investors, and those which are meant to encourage both. Tables, where they are presented, are also analysed. On the other hand, a very detailed description has been given of the fiscal incentives and institutional aids. While in the latter the description focuses on the activities of the institutions involved, in the former it is the content and administration of the incentive measures which has been described in details. The presentation here must be seen as a means to implement the other policy measures, such as the Nigerian Enterprises Promotion Decrees and indicative planning, discussed already; since they like the present ones have the objective of influencing private sector investment in manufacturing industries.

A. FISCAL INCENTIVES

The fiscal incentives currently in use in Nigeria are embodied in acts which date back to the late fifties.¹ They are -

- (a) the Industrial Development (Income Tax Relief) Act, 1958, and amended by Decree No. 22 of 1971;
- (b) the Customs Duties (Approved User Scheme) and the Customs Duties (Dumped and Subsidized Goods) Act, 1958;
- (c) the Customs (Drawback) Regulations, 1959; and
- (d) the Income Tax (Amendment Act), 1959.

Each of the above laws is discussed in turn below.

The Industrial Development (Income Tax Relief) Act, 1958, has been amended by Decree No. 22 of 1971. The stated aim of this law according to a Federal Government publication, Incentives to Invest in Nigeria, is to 'attract capital to Nigeria in the development of her natural resources and the expansion of industrial capacity' (1981:2). This incentive applies to public companies engaged in pioneer industries. It is intended to remove tax burden from companies engaged in such industries during their early

1. Some of them have, however, been amended by subsequent legislation.

years. A company may also enjoy the benefit if it is engaged in producing a pioneer product. All these require that a company or its products be declared pioneer and be issued with a certificate to that effect in the first instance. The tax relief covers a period of not more than five years in all - three years to start with, and a total of two years extension if certain conditions are fulfilled, including:

- (a) satisfactory rate of expansion and development, and an acceptable standard of efficiency;
- (b) the extent of utilisation of local raw material in the processes of the company and the training and development of Nigerian skills in that industry;
- (c) the relative importance of the industry in the economy; and
- (d) the location of the industry in an under-industrialized area.

A schedule of thirty-nine pioneer industries showing their main pioneer products is contained in the Industrial Incentives, (1981 :2-3). Of particular importance in that list to heavy industrialization are the following designated pioneer industries:

- (a) the manufacture of iron and steel from iron ore;
- (b) the smelting and refining of non-ferrous base metal and the manufacture of their alloys;
- (c) the manufacture of basic and intermediate industrial chemicals from predominantly Nigerian raw materials;
- (d) the manufacture of machinery involving the local manufacture of a substantial proportion of components thereof; and
- (e) the manufacture of commercial vehicles.

The Approved User Scheme offers either exemption from import duties or allows low rate of duties on materials imported for use in manufacturing and service industries. As with the first incentive discussed above, it too is a temporary measure (covers a period not exceeding three years), whose main objective is 'to enable a new industry to become established in Nigeria, or for an already established industry to be developed on a scale suitable to the country's overall economic requirements'(Indus. Incentives 1981:4). The incentive works, as stated above, by allowing importation of specified materials either duty-free or at a reduced rate of duty. Applicants

must satisfy the Ministry of Industries that it is impossible to provide the goods or services for which duty exemption is being sought at a price which makes them competitive with their imported kind. Also they must show that the imported article has a lower proportion of import duties compared with the raw material imported for their local manufacture. Approved Users Scheme is not granted for articles which are manufactured in Nigeria and can therefore be purchased locally.

The Customs Duties (Dumped and Subsidized Goods) Act 1958 is aimed at preventing local industries from unfair competition with their foreign counterparts whose goods are either dumped in Nigeria or are being subsidized by 'any government or authority outside Nigeria'. When the need arises, therefore, the Federal Government imposes a special duty on such goods to the extent which removes the unfavourable competition faced by the home industries. Thus the law is not invoked unless the government is satisfied that the entry of the goods in question will cause 'material injury' to potential or established industries of their kind. With the Customs (Drawback) Regulations 1959, on the other hand, importers may claim back the import duties paid on goods. The following conditions must obtain:

- (a) the imported goods are exported exactly as they are when they were imported;
- (b) the imported materials are meant for the manufacture of goods for export.

The law which encourages the pseudo-accounting practice referred to in Chapter Three is the 'Companies Income Tax (Accelerated Depreciation) Act'. The act permits companies a rapid writedown of capital assets. The aim is to enable an early build-up of liquid reserves by the affected companies through the amortization of their capital assets. This it is hoped will help young firms cope with the problem of cash flows characteristic of these firms. Under the incentive a 20% initial rate, followed by a 12½% annual rate of depreciation are allowed for plants and machinery, including furniture, fittings and motor vehicles; and industrial buildings. The cost of the incentive to the government in terms of lost revenue is calculated in Table 4.6 below.

Two other incentives of a fiscal nature have been granted not by formal legislation but through administrative action. They concern payment for technology transfer and transfer of dividend to non-resident shareholders.

Under the first incentive, compensation for technology is permitted. The argument is that the government recognizes that the owners of technology incurred costs to acquire same. However, technology agreements are supervised by the Ministries of Finance, and Science and Technology. Requirements for technology agreements are that:

- (a) they should clearly show the services to be rendered by the foreign technical partner;
- (b) they must spell out the arrangement, through training and on-the-job learning process, the effective and orderly transfer of technology to Nigerian personnel during the period covered by them.

Once the above conditions are met, approval is given to the remittance of technical/management fees. Since the 1980 fiscal year, the fees have been fixed at 2% of net profit before tax.

In its bid to maximize foreign investment in Nigeria, the government even encourages what might be described as absentee investors. The measure encouraging this is in the form of liberal arrangements for the transfer of dividends to non-resident shareholders. The rate of such transfer varies from time to time but it is generally very attractive. In the 1980 fiscal year, for example, a maximum of 60% of profits after tax or 25% of paid-up capital (whichever is higher) was allowed for distribution to this group of investors. The only condition to be met is that the distribution must be made out of the current year's profits.

Most of the fiscal incentives, it can be seen, have been meant to encourage both foreign and indigenous investors at the same time. The first five discussed above belong to this group. Foreign investors on the other hand have been encouraged by the seventh and eighth incentives; while only one, the sixth, goes to encourage indigenous investors. It has not been possible to calculate the cost of each incentive (measured in terms of lost revenue to the government) because of lack of information. But those for which information is available show that the incentives in question could be very costly to the government (Tables 4.5 and 4.6). The high cost of these incentives, it is suggested, only goes to emphasise the importance attached to industrialization by the Nigerian policymakers.

TABLE 4.5

Distribution of the Cost of the Concession (in terms of lost revenue) Granted under the Approved User Scheme

Industry	Number of Establishments	Cost of Concession (Nm)
Feed Mills	55	99.0
Pulp and Paper	107	155.7
Textiles	52	177.1
Breweries & Soft Drinks	44	7.8
Air Conditions and Refrigerators	78	221.5
Building and Metal Materials	169	73.7
Chemical Products	273	63.8
Gas, Oil and Plastic Manufacturing	49	184.0
Total	827	982.6

Source : Federal Ministry of Industries, Lagos.

TABLE 4.6

Amount shown in Government Account as Anticipated Loss in Revenue due to Depreciation Granted in Manufacturing and Processing for the period shown

Year	Amount (Nm)
1970	118.1
1971	89.5
1972	169.8
1973	172.6
1974	255.7
1975	211.1
Total	1,016.8

Source : Central Bank of Nigeria, Lagos.

B. INSTITUTIONAL AIDS

The next set of encouragement is offered through what can be called institutional aids because they are given through institutions, some of which have been created solely for this purpose. Four of such institutions are at present in existence. They are financial institutions (banks), industrial estates, industrial development centres, and what for want of a better term is referred to here as ministerial institutions.

1. Financial Institutions

The NBCI was established by Decree No.22 of 1973 with the main objective of reducing the difficulties faced by the indigenous businessmen in raising funds through other financial institutions. Thus, according to the decree its first function was to (Official Gazette : 1973, A495):

provide equity capital and funds by way of loans to indigenous persons, institutions and organizations for medium and long term investments in industry and commerce at such rates and upon such terms as may be determined by the Board in accordance with the policy directed by the Federal Executive Council.

The bank is wholly owned and financed from public sources. Its equity share capital has remained at N50m since its establishment and this is jointly held by the Federal Government (60%) and the Central Bank (40%). In addition, the Federal Government gives to the bank an annual loan of N40m to help it cope with the increasing number of demands made upon it. Plans are at hand to increase the bank's equity to N100.0m (Minister, 17/8/82). The bank is currently being used by the government to implement its policy of encouragement to small scale industries. For this purpose, an annual subvention of N19.0m is given to the bank to be disbursed as low-interest loans to small scale industrialists. Below is the analysis of the bank's disbursement of funds since its inception.

The NBCI went straight into action after it was established. Table 4.7 shows its disbursements to the manufacturing industries between 1974 and February 1982. The total sum disbursed within this period is N272.0m out of which N220.8m or 81.2% went into activities in the manufacturing sector. Thus it can be said that the bank is primarily interested in manufacturing. If, however, we turn to the kind of manufacturing projects sanctioned then, a noticeable trend once more is that heavy engineering occupies only a secondary importance in the bank's rating (table 4.8). Hence machinery and

TABLE 4.7
NBCI Loans to Manufacturing Projects
for the Period Shown

Year	Manufacturing (Nm)	Total (Nm)
1974	30.9	32.5
1975	23.3	26.6
1976	47.7	62.4
1977	24.9	26.3
1978	16.4	24.2
1979	12.7	15.4
1980	14.6	16.6
1981	49.6	67.2
1982+	0.7	0.8
Total	220.8	272.076

+ Figures only for January and February.
Source : NBCI, Lagos.

TABLE 4.8
Distribution of NBCI Loans Among Manufacturing Projects
for the Period 1974-82 arranged in Size Order

Project	Amount (Nm)
Food and Beverages	64.1
Non-Metal Mineral Products	59.2
Wood and Wooden Products	26.5
Machinery and Basic Metal Products	18.4
Non-Metallic Products	17.2
Other Manufacturing Products	12.8
Iron and Steel Basic Industries	7.6
Textiles	5.6
Chemical and Petro-Chemical Products	5.2
Pulp and Paper Products	3.2
Electronic and Electrical Appliances	0.9
Footwear and Leather Products	0.2
Total ⁺	220.9

⁺Roundings account for the slight difference between this total and that shown in the above table for manufacturing.

Source : as above.

basic metal products, and iron and steel basic industries, the two projects associated with heavy industry on the table respectively comes 4th and 7th attracting in that order, a mere 8.3 and 3.4 per cent of the total manufacturing disbursements. This is a sharp contrast with food and beverages, and non-metal mineral products which drew 29 and 26.8 per cent taking the first and second position on the table. There is, therefore, a contradiction (that could easily have been avoided) between the bank's credit policy and the government's objective of raising the proportion of heavy engineering in manufacturing projects. This should be unacceptable for the NBCI being a government institution should reflect the latter's interest in its activities. It should be interesting, therefore, to digress a little to establish the cause of the contradiction in question because it raises issues which explain aspects of the dynamics of public policy discussed in Chapter One. A convenient starting point in this exercise is to look at the objectives set for the NBCI; the major part of which was quoted above. The emphasis in that objective is loans to indigenous businessmen. Nothing is said about the distribution of that loan among projects. That was left to implementation decisions, and the implementors have in this case taken decisions which diverge from government stated priority. The absence of any reference to the distribution of the bank's credits between light and heavy industries, it is suggested, has been a serious omission. The point emphasised here, therefore, is that the above situation provides a good example of circumstances in which there ought to be a clear implementation instruction during policy formulation. This is what was referred to as 'building implementation into design' in Chapter One.

The Nigerian Industrial Development Bank (NIDB)

The NIDB was incorporated on January 22nd, 1964. According to its 'memorandum of association' the objects for which the bank is established are 'to carry on the business of assisting enterprises engaged in industry, commerce, agriculture and the exploitation of natural resources in Nigeria' (p.i).

The above objective is to be achieved by among others (Memorandum:i-ii):

- (a) encouraging, sponsoring, and facilitating participation of capital, internal as well as external, in such enterprises;

- (b) encouraging, sponsoring and facilitating acquisition or ownership of investments, shares and securities;
- (c) providing finance in the form of long-or-medium term loans or share participations;
- (d) sponsoring and underwriting any issue or conversion of shares and securities;
- (d) furnishing managerial, technical and administrative advice and assisting in obtaining managerial, technical and administrative services to Nigerian industry, commerce and agriculture.

Established with an initial capital of N8.5m, its resources have grown enormously since then. At the end of December, 1979, its share capital was N100.0m and N94.0m of this had been fully paid up. A large part of the bank's revenue comes from the Federal Government as loans. Between 1979 and 1982 this source provided the bank with N135.5m (Minister, 17/8/82). Its other sources of revenue again in the form of loans are the European Investment Bank and the World Bank. From these came N60.0m between 1978 and 1981.

The bank has set the determinants of its sanction of projects to include:

- (a) limited liability companies which are either fully owned by Nigerians or in which Nigerians have substantial equity shares;
- (b) projects whose total investments are upwards of N50,000.

In addition to loans, the bank may also have equity participation in projects to which it has given loans, but its maximum involvement in any single project both in equity and loan is limited to either 75% of the total cost or 30% of the bank's paid-up share capital, the lower of the two being the final choice. Interest on its loan is below commercial rates, but it is not normally less than 10½%. Let us for the moment consider the performance of the bank so far.

First how much of its funds has gone into industrial investments general and manufacturing investments in particular? The answer to this is provided in Table 4.9. The total amount of money that was disbursed by the bank between 1964, its inception date, and 1981 is N487.1m out of which 90% was given as loans; the rest representing the bank's equity participation. The table also shows that the bulk of the bank's disbursements, that is 70% of total, has

TABLE 4.9
Cumulative Distribution of NIDB Sanctions
Among Projects (1964-81)

Project	Amount of Sanction (Nm)			Percentage Share
	Equity	Loan	Total	
Food	6.1	32.7	40.8	8.4
Beverages	8.8	80.0	88.8	18.2
Textiles	4.8	46.1	50.9	10.4
Footwear and Leather Products	0.4	3.2	3.6	0.7
Wood Products and Furniture	1.7	16.5	18.2	3.7
Paper Products	0.4	10.3	11.1	2.3
Chemical Products	2.7	33.7	36.0	7.4
Non-Metallic Mineral Products	7.4	59.6	64.0	13.2
Rubber Products	0.1	00.6	0.7	0.1
Metal Products	1.6	24.7	26.3	5.4
Electrical Appliances	-	1.6	1.6	0.3
Hotel and Tourism	12.8	72.4	85.3	17.6
Miscellaneous	1.8	57.1	59.8	12.3
Total	48.6	438.5	487.1	100.0

Source : NIDB, Lagos.

TABLE 4.10

Distribution of NIDB Sanctions Between Public
and Private Sponsored Projects, 1970-80

Year	Private Projects (Nm)	Public Projects (Nm)	Total (Nm)	Percentage Share of Private Projects
1970	3.8	2.5	6.4	60.0
1971	8.5	2.9	11.4	74.9
1972	2.1	2.0	4.1	51.1
1973	8.4	9.4	17.8	47.2
1974	6.4	12.9	19.3	33.3
1975	24.2	35.6	59.8	40.5
1976	18.7	32.7	51.4	36.3
1977	25.1	49.1	74.3	33.8
1978	12.4	22.4	34.8	35.5
1979	22.4	21.4	43.9	51.2
1980	37.8	19.0	56.9	66.5
Total ⁺	169.8	209.9	380.0	

⁺Roundings account for differences in totals.

Source : NIDB Lagos.

gone into manufacturing activities, although these again are mainly light industries.¹ The extent to which the bank's funds have flowed into private sector investment can be seen in Table 4.10. Of the ₦380.0m which went out between 1971 and 1980, ₦169.8m (44.7%) has gone into projects sponsored by the private sector. In a number of years, in fact, the larger proportion of the bank's outflow of funds went to the private sector. In 1971 and 1980, for example, the private sector respectively received 74.9 and 66.5 per cent of the bank's total disbursements for the year.

The Commercial Banks

The promulgation of the banking decree (1969) was borne out of the desire of the government to use the commercial banks to foster its industrialization policy. That decree made it mandatory for all commercial banks to incorporate in Nigeria. With their incorporation, all foreign banks which hitherto were independent in their banking operations became subject to government control. To further strengthen this control, 40% equity shares of the banks concerned were compulsorily acquired by the government. This meant that apart from its legislative control, the government also had management control. The latter is exercised through its representatives on the banks' Board of Directors. But its legislative control, which is more important, has been exercised through the Central Bank, in what political analysts would call 'delegated legislation'. This enables the Central Bank therefore, to issue directives to the commercial banks from time to time, as may be directed by the government.² In line with this, the Central Bank in April 1970 ordered that all commercial banks must make at least 30% of their loans and advances to indigenous borrowers.³ And in 1972 Central Bank guidelines prescribed the sectoral distribution of commercial banks' loans and advances between production, services, general commerce, and others.

-
1. Raising the same kind of issues as was observed for NBCI above. It should be noted here, however, that the NIDB is in many respects more independent of the government. Its wider and more commercialized sources of revenue, some of which are foreign, should also mean that it has more varied interests to satisfy.
 2. A major reason for these actions is to facilitate the access of Nigerian businessmen to credits. This objective was stated in the budget speech of 1971 and was especially responsible for the government decision to acquire equity shares in the commercial banks (Central Bank of Nigeria, Annual Reports and Statement of Accounts, 1971:13). The second reason for the actions is to influence the directional flow of the banks' credits according to the sectoral priority of the government. These, as we shall see immediately, are the goals which the Central Bank has been quick to achieve on behalf of the government with its delegated powers.
 3. This has varied between 30 and 40 per cent since then.

Production, the sector to which manufacturing belongs under the above arrangement, has consistently been accorded the pride of place among the sectors, and manufacturing is the activity within that sector which is given topmost priority. Starting with just 38% in 1973, the production sector's prescribed share of the commercial banks outflow of funds rose to 56% in 1980. Further, manufacturing has consistently been allotted not less than 60% of each year's share. In 1974 and 1979 this respectively came to 67 and 68 per cent. Table 4.12 presents the actual distribution of the loans and advances up to 1979, starting again from 1973. Manufacturing stands out clear again as the most favoured activity in that table. It has taken between 33.4% and 64.9% of the total loans and advances made to the production sector between the two dates. As a matter of fact, manufacturing took more than 25% of each year's total allocation of funds between 1974 and 1979. The obvious conclusion that can be reached from the above facts is that the Federal Government is effectively using the commercial banks to encourage the flow of investment funds into manufacturing activities.

2. Industrial Development Centres (IDC)

The IDCs share the same objective with the NBCI; they too are institutions created to promote small scale industries. They were first recognized as instruments for implementing industrialization policy in the Second Plan (pp.145 and 150) and today their importance is stressed by policymakers as the main institutional machinery for reducing the technical and managerial inadequacies of the small scale industries.¹ Designed for multi-purpose use, the IDCs provide extension services, training facilities and product development, all for small scale industries. An IDC has two functional divisions for rendering specific services to the small scale industrialists: technical services and management services divisions. The first division renders services which include:

- the selection of machinery and equipment for small scale units;
- guidance on the choice of techniques of production;
- advice on plant lay-out, installation of machinery and equipment; and

1. The Assistant Director and the Deputy Secretary both of the Small-Scale Industries Division of the Federal Ministry of Industries stressed this point (Interviews 19/8/82).

TABLE 4.11
Analysis of Commercial Banks Actual Loans and
Advances to the Production Sector (Nm)

Activities	1973	1974	1975	1976 ⁺	1977	1978	1979
Agriculture, Forestry and Fishing	230.8	305.7	333.5	141.6	1,211.6	2,127.6	3,274.4
Manufacturing	993.2	2,691.3	3,887.5	1,298.1	8,633.5	11,973.4	14,725.5
Mining and Quarrying	1,034.7	118.1	170.4	61.4	334.1	423.9	534.9
Real Estate and Construction	715.6	1,041.5	1,838.0	634.6	6,319.7	9,609.9	11,594.9
Total Production	2,974.3	4,146.6	6,229.4	2,135.7	16,498.9	24,134.8	30,129.7
Total All Sectors	7,671.2	9,785.5	14,332.0	4,732.5	30,992.0	45,546.7	51,151.3
Manufacturing as % of Total	12.9	27.5	27.1	27.4	27.9	27.5	28.8
Manufacturing as % of Production	33.4	64.9	62.4	60.8	52.3	49.6	48.9

⁺Figures Cover only the first quarter of the year.

Source : Central Bank of Nigeria, Lagos.

training of plant personnel on handling of machines.¹

The Management Services Division, on the other hand, provides services which are administrative and managerial in nature. They include: feasibility studies and market surveys; supply of industry information; sales promotion and advertising; book-keeping, accounting and cost analysis; and management training, financial counselling and credit arrangements.

There is no doubt then that the activities undertaken by the IDCs could make enormous contributions to the industrialization efforts. Accordingly they have continued to attract more government support and have increased in number since they were first established.

The IDCs, it has been noted, were first conceived of in the Second Plan. During that plan period three of this institution were established in Zaria, Oshogbo and Owerri. The Third Plan was committed to establishing an IDC in each state of the federation and had set aside N35.5m for this purpose as well as maintaining the existing ones. This goal was only partially achieved at the end of the plan period, with only 13 states having an IDC. It is hoped that the current plan will achieve the goal set in the Third Plan (Assistant Director, Small Scale Industries, Ministry of Industries, Lagos). It is, therefore, planned to spend N80.0m on the creation of new IDCs and the maintenance of existing ones before the end of the plan period in 1985 .

The services of the IDCs represent real assistance; they are all rendered free of charge. Staffing and other facilities used at the Centres are provided by the government. The record of achievement measured in terms of projects which have been set up or are maintained through the services of the IDCs has been very high.² Small scale industrialists enthusiastically avail themselves of these free but very valuable services.

-
1. Other services of this Division are advice on product improvement, quality control and standardization; assistance in plant maintenance and repair; advice on diversification of product mix; helping with improved product designs; and assisting to resolve operational problems.
 2. It was not possible to visit all the IDCs during the field work for this study; but those visited in widely separated parts of the country showed evidence of being fully stretched by the ever increasing demands for their services by the small scale industrialists.

3. Industrial Estates

Industrial estates are yet another institutional aid which have been used to encourage the growth of manufacturing industries in Nigeria. As in many other countries where they have been used, the underlying thought on industrial estates in Nigeria is that by concentrating firms in one place it will be cheaper and easier to provide such services as electricity, water, transportation, and other industrial infrastructure including technical and managerial services.

The first industrial estate which opened in Yaba (Lagos) in November 1958 had two specific objectives. First it was to serve as an industrial nursery which nurtured young industries to maturity after which they should quit to continue elsewhere. Second, the estate was to test the profitability of constructing the same institutions in other parts of the country. Schatz (1977) has studied the Yaba Industrial Estate and found that it has failed to achieve these two objectives. On the first he found that only two firms grew up to maturity and on the second he found that the state could not break even much less of making profits.

In spite of the above failures of their forerunners, industrial estates have spread to all parts of Nigeria. They are state government projects subsidized by the Federal Government. Only one out of the 19 states (Kwara) did not have an industrial estate in August 1982 when this research was conducted. Many states have got three or four and they have attracted huge amounts of public funds in recent times. In the Third Plan the Federal Government allocated N60.0m as grants to the states in aid of industrial estates and in the Fourth Plan N9.5m has similarly been allocated. The states, on the other hand, had planned to spend N56.7m during the Third Plan on the development of these institutions. The proposed expenditure in the current plan by the states for the same purpose is N84.6m.

One might ask why the continued interest in industrial estates after the pilot one had failed to achieve the objectives set for it. The Nigerian policymakers seem to think that it was the objectives themselves that were faulty and not the industrial estates. Accordingly, a new set of objectives has been formulated. First they are no longer seen as profit yielding ventures. They are regarded purely as aids and for that matter, as encouragement to industry. Secondly, the new estates are built as permanent sites for the firms which occupy them rather than just as temporary 'nursery beds'

intended in the Yaba scheme. The estates have, therefore, become the darling of policymakers and are popularly cited as projects of industrial promotion.¹

4. Ministerial Institutions

A number of institutions have been established within the Federal Ministry of Industries for the purpose of giving various assistance to industry. The most important are considered below.

4.1 Investment Information Promotion Centre

This centre was established in 1966, and as the name implies, its main purpose is to promote investment in industry by giving out vital information to the investing public. Its main target is foreign investors, but it also renders investment promotion services to Nigerian businessmen, principally by pairing them up with their foreign counterparts for joint ventures. Apart from giving information to investors it also helps them take the full benefits of the incentives to which they may be entitled. Its information service to the foreign investors concerns the investment climate in the country and is given through brochures, advertisement in foreign media or through the Nigerian Embassies. In this connection there are plans to open offices of the Investment Promotion Centre overseas. The first one was planned to open in New York in September 1982, to be followed shortly by another in Chicago both in the United States. Thereafter, they are to gradually spread to other parts of the world (Minister, 17/8/82). Some foreign investors have chosen to make personal contacts hence the Centre receives investment-information-seeking foreign visitors. Between 1970 and 1973 a total of 1,040 foreign businessmen visited the centre for investment information. In addition there were 3,000 Nigerian callers for the same purpose (Nigerian Trade Journal, Vol.21, No.4, October /December 1974). Efforts to update these figures did not succeed but it does suggest the scale of the Centre's activities which should have grown many times by now. A recent addition to the Centre's activities is the commissioning of feasibility studies of viable industrial projects. These are distributed free of charge to investors when completed. Between 1979 and August 1982 40 such studies were commissioned (Minister, 17/8/82)

1. At a meeting of officers responsible for investment promotion in all the states of the federation, held on December 4th, 1981 in Llorin, the meeting ended by stressing the importance of the estates as programmes of industrial promotion and called on every state to establish at least one of them in each local government (Minutes of the Meeting).

4.2 Industrial Data Bank

This is a very recent development in the institutional aids to industry. Its object is to enable the Ministry 'to effectively monitor the industrial sector and to provide factual and reliable information to industrial consultants, prospective investors and economic planners'(Min.17/8/82) and according to the Minister, the bank is to go into operation by December 1982. A more specific aim of the bank is to serve as 'a reliable repository of information relevant to the manufacturing industry and likely to interest investors' (Guidelines to Investors, 1980, p.240). . It (the bank) is to hold vital indices of existing industries such as their production capacities and expansion plans production costs, market information, price movements, and the spatial distribution of raw materials within the country. The bank is to consume ₦10.0m of Federal Government funds within the period covered by the current plan (1981-85).

4.3 Industrial Development Coordination Committee (IDCC)

Like the one just discussed above, this is a new institution, again with the broad aim of aiding industrial investment. Although it is based in the Ministry of Industries (Federal) it is in fact an inter-ministerial committee comprising of the Federal Ministries of Industries, Finance, Internal Affairs, National Planning, Agriculture, Commerce, Health, External Affairs, Mines and Power, Science and Technology, Housing and Environment, and the Economic Department of the Executive Office of the President. The Committee has no executive power as its main responsibility is to make recommendations to the Minister of Industries, 'in the light of developments in the industrial sector and the economy generally, on ways and means of improving the investment atmosphere for the manufacturing industry'(Guidelines, 1980 : 18). The committee is also to facilitate the process of setting up industries in Nigeria by shortening the processes to be passed through before projects can be established. In this regard the committee aids investors in obtaining licences and permits. It also ensure that incentives are efficiently administered.

It was discovered during the field work that the committee was finding it difficult to take off because other Ministries feel that they are being subjected to the Ministry of Industries through that institution. It had, however, held seven meetings and it is hoped that the remaining obstacles will be removed through a meeting of the Ministers whose Ministries

are represented on the Committee (Interviews Assistant Director IDCC, 6/8/82).

Most of the institutional aids just considered have been designed to encourage both indigenous and foreign investors at the same time. Two of the institutions, however, exclusively encourage indigenous investors - the NBCI and the IDCs. In addition, two of the institutions encouraging both, have been used to discriminate in favour of this group of investors. Thus the commercial banks have been required to give a fixed proportion of their loans to indigenous borrowers and the NIDB's primary interest is in projects which are either wholly Nigerian or in which Nigerians have a substantial equity share. Foreign investors on the other hand have enjoyed their own favourable discrimination with the Investment Information Promotion Centre. It should be recalled that the Centre is opening its branches in other parts of the world in a bid to get closer to foreign investors.

On the whole, indigenous investors have a net advantage over their foreign partners in the encouragements offered through the institutional aids. This only goes to emphasize the desire of the Nigerian authorities, to which repeated references have been made already, to enhance a greater share by Nigerians in the manufacturing assets in the country.

EVALUATION OF PERFORMANCE

This concluding section considers the result achieved in the investment strategy being pursued in Nigeria. For this purpose the following indices of the manufacturing industries have been selected for analysis. They are the growth rate of manufacturing output, the contribution of manufacturing to the GDP and value-added and the growth rate of gross fixed capital formation. These indices, it can be argued, are those which will most accurately measure the enthusiasm¹ shown for these industries by the Nigerian policymakers. Moreover, some of these indices, for example, accelerated growth in manufacturing activities and increase in value-added therefrom, have been mentioned specifically among the objectives of the country's industrialization policy (Fourth Plan : 142, Guidelines to Investors, 1980 : 10).

1. This enthusiasm it has been shown is expressed through massive public sector investments in manufacturing enterprises and through elaborate policy measures designed to encourage the private sector to follow this example.

Manufacturing Output

With 1972 as the base year, manufacturing output grew from 60.7 in 1967 to 263 in 1980 (Table 4.12). This is an increase of 334.2% and would seem to be a very encouraging performance. But in terms of its overall growth rate within this period, manufacturing output has not reflected the leaps in the size of investment, particularly from the public sector, which has been going into that activity. If we recall for a moment actual public capital expenditure in the manufacturing industries jumped from ₦88.1m in the Second Plan period to ₦2,569.7m in the Third, an increase of 2816.8%; but within the period covered by the two plans, 1970-80, the percentage change in manufacturing output (Table 4.12) is only 225.4%. If anything this is only a short step rather than a jump in public manufacturing investments made within the same period. Table 4.13 also shows that manufacturing output in Nigeria lags behind those of the other countries shown in the table. Thus Nigeria's per capita gross manufacturing output was only \$17m in 1970 compared with Brazil, Malaysia, Egypt, and, for that matter, its next door neighbour, Ghana, which respectively had \$229m, \$178m, \$146m and \$58m.

The major factor responsible for the poor record of manufacturing output shown above, lies in an area which is outside the scope of this study, but which should nevertheless be mentioned. Public enterprises in Nigeria, as they have been in many other countries, have found it impossible to operate in the strict economic sense, hence heavy losses are a permanent feature of these enterprises. But, as we saw earlier on, the size of the Federal Government manufacturing investments which fall into this category is very large.¹ This means that the cumulative impact of whatever negative performance is recorded thereof would be equally great on the overall performance of the manufacturing industries.

Gross Domestic Product

Two measurements have been applied to recording the share of the manufacturing sector in the GDP - its contribution to the aggregate of this index between 1975 and 1980 and the growth rate of this contribution within the same period. These have been shown in Table 4.14. Manufacturing has only averaged 6.8% in its contribution to the GDP for the period covered. This compared very unfavourably with mining and quarrying; agriculture, livestock, forestry and fishing; wholesale and retail trade; all of which have

1. As at August 1982 it would easily exceed three-fifths of all manufacturing investments.

TABLE 4.12

Index of Manufacturing Output (1972 = 100)

Year	Index	Percentage Change
1967	60.7	
1968	60.6	0.2
1969	79.9	31.8
1970	81.0	1.4
1971	92.8	14.6
1972	100.0	7.8
1973	123.6	23.6
1974	119.5	- 3.3
1975	147.7	23.6
1976	182.2	23.4
1977	193.5	6.2
1978	221.4	14.4
1979	237.5	7.3
1980 ⁺	263.6	11.0

⁺Estimates only.

Source: Central Bank of Nigeria, Annual Report and Statement of Accounts for the various years.

TABLE 4.13

Value-Added and Gross Manufacturing Output: Nigeria
Compared with Other Middle Income Countries

Country	Value-Added in Manufacturing (1970 Prices)		Gross Manufacturing Output Per Capita (1970 Prices)	
	1970 (\$m)	1976 (\$m)	1970 (\$m)	1976 (\$m)
Egypt	1,326.0	1,882.0	146.0	-
Ghana	235.0	186.0	58.0	-
Phillipines	1,579.0	2,334.0	108.0	-
Nigeria	529.0	1,122.0	17.0	42.0
Ivory Coast	200.0	29.0	-	140.0
Columbia	1,143.0	1,746.0	127.0	172.0
Malaysia	543.0	1,103.0	178.0	-
Taiwan	1,873.0	4,278.0	-	-
Brazil	9,972.0	19,147.0	229.0	-
Mexico	8,636.0	12,174.0	-	-
Venezuela	1,827.0	2,719.0	-	423.0

Source: World Bank : World Development Indicators; Industrialization.

recorded a much higher contribution.¹ Turning to the rate of growth of the GDP in manufacturing, the picture changes. Here that sector stands out among the others in the table; its average of 34.9% is the highest. This impressive growth rate had in fact started in 1970 and increased steadily since then. Thus at 1973-74 constant prices the share of manufacturing in GDP had grown at 11.0% between 1970 and 1973; and at 15.6% between 1974 and 1978 (Third Plan : 137). If it is recalled once more that there has been a progressive increase in the volume of investments made in manufacturing as well as in the aids being used to encourage it, then it seems that the two parameters (that is, the volume of investments in manufacturing and the growth rate in GDP thereof) have moved in the same direction, and this may suggest a causal interdependence. It is argued, therefore, that the high and persistent growth rate of the GDP in manufacturing represent a positive achievement in the investment strategy.

TABLE 4.14
Gross Domestic Product at Current Factor Cost,
for the Period 1975-76 to 1979-80.

Sector	Average Distribution %	Average Growth Rate %
Agriculture, Livestock, Forestry and Fishing	20.8	11.8
Mining and Quarrying	27.0	16.8
Manufacturing	6.8	34.9
Utilities	0.3	20.9
Building and Construction	13.8	24.2
Wholesale and Retail Trade	18.2	21.4
Transport and Communication	4.0	25.5
Producer of Government Services	5.5	22.4
Other Services	3.0	25.4

Source: Fourth National Development Plan, Extracts from Tables 2.6 and 2.7.

1. The inadequate contribution of the manufacturing activities to the GDP was observed with concern in the Third Plan which noted that the sector was only contributing one-half of what expert knowledge reveals it is capable of contributing (p.147). It was also noted (3rd Plan) that in countries at the same level of development as Nigeria manufacturing contributed between 15 and 20% to the GDP, as against only 8% recorded for the same activity in the latter.

Value-Added

This is another index in which the general performance of manufacturing has been fair. With 1972 as the base year, its value-added rose from 108.4 in 1973 to 251.9 in 1978 - Table 4.15. The average value-added of each type of manufacturing activity within the period covered is also high - ranging from 106.7 to 223.8. Again, when compared with the other countries, as in Table 4.13 and for the same period, Nigeria's manufacturing performance in this index is much better. Thus its \$529m value-added in 1970 is higher than Ghana's \$235m for the same year. The Ivory Coast also falls behind Nigeria here. 1976 shows a better performance for Nigeria still. In that year it moved ahead to overtake Malaysia and the Phillipines in addition to the two countries it had already overtaken. The one respect in which value-added in Nigeria's manufacturing is found wanting turns out once again to be its distribution among specific types of industries. As can be seen in Table 4.15, the highest value-added has been recorded in the light technology industries, notably textiles, paper and paper products; which top the table. It is noteworthy, however, that chemicals and metal products occupy the third and fourth positions. Alternatively motor vehicle assembly has come out at the bottom of the table. This does not reflect the hope of the Nigerian authorities earlier alluded to, that this particular industry will interact with the other hardware industrial activities to enhance higher technology and heavy engineering in the country's manufacturing enterprises. In spite of this shortcoming, it can still be concluded validly that the value-added objective has been a remarkable success.

Gross Fixed Capital Formation

The analysis of capital formation is undertaken here with particular reference to the machinery component of that index. It can be seen from Table 4.16 that the behaviour of machinery in aggregate capital formation is similar to that of the GDP analysed above; it has made a very poor contribution to the total fixed capital formation but its growth rate is very high. This high growth rate, it is contended, is the direct result of the special incentives, particularly the rapid depreciation of capital assets, which have been designed purposely for this. It has been noted already that the accumulation of physical capital by a country has an important implication for its technological progress and hence its industrial development. It is argued once more that the trend in the growth rate of the machinery

TABLE 4.15

Value-added by Selected Manufacturing Industries (1972 = 100)

Industries	1973	1974	1975	1976	1977	1978	Average
Food and Beverages	141.8	167.3	210.6	243.4	275.9	304.0	223.8
Leather Products	94.2	102.9	128.9	178.6	262.4	287.8	175.8
Wood and Wood Products	94.9	118.9	155.9	172.3	227.7	264.1	172.4
Paper and Paper Products	134.0	159.8	194.8	204.5	234.0	254.6	197.0
Chemicals	128.6	151.9	172.2	200.0	228.8	239.1	186.8
Textiles	98.9	147.4	164.1	179.7	200.1	219.7	168.3
Tobacco	105.8	111.8	140.8	177.3	186.1	208.8	155.1
Metal Products	108.2	159.5	189.7	206.3	214.2	233.0	185.2
Non-metal Products	103.7	109.0	126.8	152.3	195.1	214.2	150.2
Motor Vehicle Assembly	100.1	104.4	106.4	109.4	112.4	116.3	108.2
Electronics & Electricals	101.8	102.0	103.2	108.6	110.8	113.8	106.7
Totals	108.4	141.2	177.6	205.3	232.8	251.9	

Source : Central Bank of Nigeria, Annual Reports and Statement of Accounts, 1978:
Partial Reconstruction of Table 10.

component of the gross fixed capital formation depicted in Table 4.16 augurs well for Nigeria's industrialization goal.¹

TABLE 4.16
Gross Fixed Capital Formation, 1975-1980:
Percentage Averages

Item	Distribution	Growth Rate
Building and Construction	62.4	33.2
Transport Equipment	16.5	49.0
Machinery	19.9	48.5
Land Improvement	1.2	21.3
	Total 100.0	Aggregate 35.4

Source: Constructed from Tables 2.8 and 2.9, Fourth National Development Plan, p.19.

In summary, this chapter has tried to explain the circumstances which have led to interventionism in Nigeria's industrialization policy and to give accounts of how that interventionism has been approached in practice, and of the results achieved. The major argument pursued in the chapter, therefore, has been that the historical structure of the Nigerian economy and the desire for rapid industrialization after 1960 made the interventionist approach attractive to, and in many respects, an inevitable choice for policymakers. The method used to implement this approach is a planned mixed-economy that has set itself to the task of combating the structural defects in the economy, which, left alone, will be inimical to industrial development. In this regard, and for the investment strategy interventionism has sought especially to fill an entrepreneurial vacuum and to reduce the unfavourable conditions in the economic environment which generally inhibit industrial investments. The same unfavourable conditions also constitute obstacles to the development of industrial technology and manpower, hence some of the measures of encouragement discussed in this chapter² have the (stated)

1. Balance of payments is yet another index that may be analysed to assess the achievements of the investment strategy. It should be recalled that this index was analysed in Chapter Three (Table 3.1) and found to have performed poorly in connection with import substitutions and for the reasons advanced. That conclusion is also valid for the investment strategy as a whole.
2. This part of the chapter in fact relates variously to Chapters 3, 5 and 6. Accordingly references were made to it in Chapter 3 and will be made to it again in the succeeding two chapters.

objective of creating a more conducive environment for the growth and development of the personnel and technology required for industrial progress. The result achieved by implementing the investment strategy discussed in the last few paragraphs has not been generally encouraging, although there has been a reasonable success in a limited number of cases. The full impact of these results are examined further in the Concluding Chapter, which will look at them in the light of the other strategies discussed and the policy process as a whole. The chapter will stress the discrepancy between the technocracy of the planners in striving to infuse economic rationality into the planned industrial programme of the government (evidence of which was shown clearly in this chapter), and the selfish motives of the politicians and other elites in regard to that programme.

CHAPTER FIVETECHNOLOGY STRATEGYINTRODUCTION

The choice questions which emerge in the technology strategy discussed in this chapter have not generated the kind of political debate noted for the investment strategy. The main reason for this is that these choices have been left largely to technocratic decisions. Thus decisions regarding the sources of technology, the kind of technology and how these should be acquired for Nigeria's industrialization programmes have been left to the technocrats, who in this case are mostly people with formal qualifications in engineering who occupy high level decision-making positions in the Ministries of Industries and Technology. In making their choice decisions, however, two kinds of disputes of interest have emerged from policymaking points of view. The first concerns the politics of policymaking as it concerns the interests of those directly involved in formulating and implementing particular policies. A number of technological efforts have been made in Nigeria in the last few years by individuals, some of whom do not belong to the elite professional group called engineers, all of whom have acquired their status through formal educational qualification ending up with either a University degree or a polytechnic HND. But some of the technological products made by those who do not belong to this group are nevertheless spectacular in all respects and appear to meet the declared technological aspirations of those in charge of making the policies relating to this matter. One therefore expects that such efforts will receive the enthusiastic encouragement of the policymakers. This has not been the case. The evidence provided in this chapter argues that the policymakers are not enthused by the achievements of the non-professional engineers, because they feel threatened, even belittled by such efforts. Accordingly ingenious achievements such as the making of a solar car are denied recognition and financial support. On the other hand, financial resources and other encouragements are poured into government research institutes filled with engineers trained through the formal educational system, but where technological innovations have not matched those made by 'eccentric engineers' in sophistication and relevance. Relevance should be stressed here because efforts in solar technology has enormous economic benefits for Nigeria which enjoys abundant insolation. But considerations such as these, which arguably are very plausible are subordinated to emphasis on formal qualifica-

tion which may turn out to be false. It can be suggested that formal qualification as the example here demonstrates is important not, as educational philosophers would argue, for the skills it confers on the individual and how these skills are used to the benefit of the society, but as a means both of access to the 'elites' in the first instance and then as a means of defending the interests of the elites through public policy-making. This is discussed in detail in the body of this chapter.

The second dispute concerns the question of technology transfer. On the one hand policymakers have put great hopes in developing Nigeria's technological capability from the industrial activities of the multinational corporations operating within the country in what is known as 'technology transfer', and have based a substantial part of the country's technology strategy on these hopes. The MNCs, on the other hand, are not quite as enthusiastic to extend their technological know-how to the host countries in which they operate and Nigeria has not been an exception. The discussion contained in the latter part of this chapter shows how the multinationals operating in Nigeria through overt action undermine the technological spin-off that could potentially result from their presence in the country. The question posed then is why have policy measures not been taken to counteract this negative attitude of the multinationals towards the transfer of technology to Nigerians. One possible suggestion would be that policymakers are completely powerless in their bargaining for technology with the multinationals. This suggestion will not, however, stand up to the empirical realities which underlie the conditions under which host developing countries bargain and negotiate for technology with the MNCs, as these negotiations are characterized by strengths and weaknesses on both sides. For Nigeria, its greatest strength is its large internal markets and its diversified natural resources. Properly played, these are trump cards which are always sure to make important wins in the game of technological negotiation with the multinationals. The Nigerian policymakers have yet another means of dealing with the multinationals' intransigence towards their technological objectives. They may, following the examples of Japan and Russia adopt the policy of controlling technology imports into the country. The details of this policy discussed later shows that it is possible through appropriate policy measures to make it difficult for the multinationals not to transfer the technology involved in their industrial operations within a host country. The reasons why the possible counter-active measures mentioned above have not been taken against the MNCs

unwillingness to transfer their technology to Nigerians brings us again into the question of elite influences over policymaking in Nigeria. It was argued earlier that the MNCs in Nigeria have fostered an alliance with the policymaking elites, and, therefore, have access to influencing public policy in their own interest. One specific example of this with regard to technology strategy to be discussed later is that it has been possible for foreign managers of joint-ventures (in which public authorities and a multi-national are the major shareholders) to violate the venture agreement against the interest of Nigeria through the co-operation of public officials. They may either be bribed into such co-operation or may have a vested interest in the ventures concerned.

Turning to the technology strategy and policy models, it may be noted that it accommodates the same models as were indicated for the investment strategy: its rationalism and incrementalism deriving as well from development planning as the main instrument for formulating and implementing the programmes contained within the strategy. Implementation here similarly has strong institutional elements and comments made earlier obviate the elitist dimension of the strategy. The data presented and analysed in the rest of the chapter are aimed to illustrate these matters. Specific problems relating to the policy process: initiation, formulation, implementation and evaluation are discussed in details.

The rest of the chapter is organized as follows:-

The first part discusses the debate which has been going on regarding the subject of technology. It highlights important issues raised in the debate and the problems which they pose for policymaking. Issues such as what constitutes the concept itself, the types of technology in existence, the sources from which technology may be acquired and in particular the movement of technology from one location to another, are all considered with particular attention to their policymaking dimension for a developing country.

The second part of the chapter takes up the empirical case of the technology strategy pursued in Nigeria. It traces the evolution of technology policy in the country paying close attention to the processes involved in their formulation and implementation. In the course of the discussion, attempts are made to relate the theory of technology policymaking discussed in the first part to the practice of that exercise in the country of our study - Nigeria. Hence projects of heavy engineering, the vehicle assembly industries and the iron and steel projects, are discussed in some details to illustrate the substantive issues in technology policymaking in Nigeria.

The Meaning of Technology

One approach to defining technology is what might be described as the placement approach. In that approach writers on the subject have attempted to determine where among the factors of production, technology is located. To some it is located in physical capital, while to others it is located in labour, that is, in human capital. Murphy, however, disagrees with both and with a convincing argument too; for, the elements which binds together into what we call technology is much more than a single factor of production or even the combination of a few of them. He argues that technology is neither embodied in aggregate capital nor in particular factors, but in the whole economic process traversing factor supplies to marketing outlets (Spencer and Woroniak eds., (1970), 7). Taking a systemic view he suggests that technology should appropriately be conceived of as a harmonious meshing of sub-systems involving interrelatedness within firms, between firms and between industries. There is a problem posed for policymaking in the above conceptualization of technology - how to identify the appropriate sub-system and create conditions which aid their harmonious meshing. The usual approach by policymakers has been to create such conditions by establishing institutions to identify the sub-system within the economy which are seen to have some relevance to technology development and to encourage and co-ordinate interaction among those sub-systems. This has not always been a successful approach as such institutions either find the task elusive or find it difficult to resolve the crises which soon develop between components of the sub-system. These crises are explained in another attempt to provide a conceptual framework for discussing technology. The views expressed here support those of Murphy; although from a different perspective, that the concept of technology is more complex than is frequently assumed. Thus Kranzberg argues that technology rather than being a mere imitation of artifacts is 'a comprehensive social phenomenon spanning social, psychological, cultural and political processes (Spencer and Woroniak, 1970 : 31). What can be inferred from Kranzberg's conceptualization is that technological policymaking has to contend with almost all societal variables including on the one hand those of them like the psychological and the cultural which are most elusive and amorphous, and on the other those like the political which are conflictual and explosive. These problems are aggravated for policymaking in the under-developed countries, where the technology being conceived of and about which policy is being made belongs

to an alien culture. Accordingly, the failure of technology policy in many under-developed countries has been blamed on many occasions on the failure of such policies to take account of the cultural differences between the foreign source of technology and the under-developed country concerned. Also, economic policymaking of any kind, not least the technological, is greatly aided if it is not too troubled with conflict especially among those involved in making it and if it is specific and clear-cut. But first, the political dimension of the technological phenomenon often manifests itself in policymaking by dragging those directly involved - scientists, technologists, administrators and politicians - into conflicts regarding, for example, the amount of resources to be devoted to R & D or the use to which a given technology must be put, such as whether nuclear technology should be used only for peaceful means or whether its weaponry alternative must also be explored. Second, the amorphous nature of the cultural and psychological dimension of the technological phenomenon means that an attempt to make a clear-cut policy in that circumstance could be very difficult indeed - it is as though one was trying to cut straight edges from wrinkled surfaces. Ikoku's definition (1981, 15) further highlights the conceptual problems confronted in technological policymaking. Like Murphy, he takes a systemic view but his definition raises a different set of problems for policy. Technology in Ikoku's view, and one might add, technological policymaking, must be seen as a system containing the following elements - the ability to:

- (a) identify a technological process and its physical embodiment;
- (b) negotiate and acquire technology;
- (c) set it up;
- (d) operate and maintain it;
- (e) adapt it and improve on it; and
- (f) the ability to create, innovate or develop new technology.

The problems posed for policymaking in an attempt to operationalize the above concept are even more difficult than those already considered. One might argue that the ability to identify a technological process and its physical embodiment would also have conferred an ability to create, innovate or develop new technology. We are, therefore, confronted here with a policy problematic that borders on a vicious circle for that first ability, which is the ability to make a strategic decision about technological policy is

often lacking in many under-developed countries. They frequently do not also have the right people to negotiate for technology nor do they have the science and technology base which are necessary for acquiring it and setting it up. Vaitzos (1970: 16-23), rejecting a price-system commercialization of technology, presents the same argument succinctly. He argues that -

...the existing market of technology commercialization not only differs from that of the price system, but also places the purchaser in a structural position of basic weakness. In the formulation of the demand for technology, or for information in general, the prospective buyer needs information about the properties, potential results, alternative offers, etc., of the item he intends to purchase.Yet quite often, the item itself that one needs to purchase, i.e. technology, is at the same time the information that is needed in order to make a rational decision to buy it. What is needed is knowledge about knowledge which could effectively be one and the same thing.

(Bernstein ed., 1976:317)

Ikoku addresses another issue which is important for technological policymaking. It concerns the question: What should be the goal of technology policy? He thinks that technology must be applied for meeting man's immediate social and economic needs as determined by him. There are two problems for policymaking here - the determination of what such social and economic needs are and their rank order. Technology policy therefore has to contend with such issues as whether technological efforts should focus first on industry rather than agriculture or on housing rather than health and so on. In Nigeria, for example, there is great emphasis on the development of industrial technology. The assumption of the policymakers which seems plausible, is that industrial technology will also find good uses in other spheres of development goals, including agriculture, transportation and communication. An attempt to apply technology to as many social and economic needs as possible at a time may lead to the rapid multiplication of the institutions charged with responsibility for technology development but unless there are sufficient human and other resources to back them up such institutions will not be effective. We are back once again to the vicious circle described above. One wonders whether this is an explanation for the inability of the many research institutions in Nigeria to make any significant contribution to technology development there. Some of these institutions are examined in detail below.

The preceding discussion is not intended to portray technology policymaking as an impossible task, rather it is to show the difficult problems which are confronted in the process, particularly the crises of choice which have to be resolved in all aspects of technology policy. Already it has been shown how these crises of choice may manifest themselves even in establishing an acceptable meaning of the concept technology. Meanwhile it will be shown that the crises of choice have yet to be contended with when policymakers have to decide on the type of technology to use for their industrialization and the sources from which they may obtain that technology. These two aspects of the technological development process have, like defining the concept of technology itself, been visited with a debate.

Types of Technology

The theme of the debate here is the type of technology that best suit the conditions of the under-developed countries, both in the short run benefit of production and in the long run benefit of technological learning and development. There has, therefore, been a need to identify first the types of technology that are available. Among those which have been most frequently referred to in the debate are appropriate and inappropriate technology, intermediate and advanced technology, labour intensive and capital intensive technology. Some writers also talk about alternative technology. These concepts have been used to classify technology and to identify which, in the opinion of the contenders, best suit the circumstances of the under-developed countries. Let us examine the main arguments raised in the debate.

Appropriate and inappropriate technology comes closest to the theme of the 'type' debate. We shall, therefore, consider this classification first and link it up with the others. Morawetz says of appropriate technology as 'the set of techniques which makes optimum use of available resources in a given environment. For each process or project'. He continues, 'it is the technology which maximizes the social welfare...' (cited, Stewart, 1978: 95). The opposite of the above definition, that is the set of techniques which do not make optimum use of available resources therefore constitutes inappropriate technology. Stewart (1978) argues that techniques of the developed countries have inappropriate characteristics for the under-developed world, because the environment of both are different.

Morawetz's definition raises two questions - Technology with what? and Technology for whom?, for those concerned with technology policymaking in the under-developed countries and provides them with the answers as well. To the first question - Technology with what?, Morawetz suggests that what policymakers should do is to survey the available resources first and to choose the technology which combines most with the resource endowments of the country concerned. This leads to the next point in the debate. Should developing countries industrialize through labour intensive technology or should they do so through the capital intensive type? Those who argue the case for the labour intensive technology would also accept Morawetz's definition of appropriate technology, for their case is that labour is the resource commonly in abundance in the developing countries as opposed to the relative, and in many instances the absolute, scarcity of capital. Labour intensive technology, as the argument goes, would be cheaper therefore by merely obeying the economic laws of demand and supply.¹ The second question - Technology for whom?, seeks to identify the group within the society in whose interest the decision regarding the type of technology should be made. The answer suggested by Morawetz here may be related to the basic needs strategy to development - a strategy which has been strongly recommended by both writers on, and practitioners in the field of, development. (Sing, 1979; Hicks & Stresten, 1979; Leipziger, ed., 1981). That strategy argues that development policy and efforts must be directed towards the most elementary and fundamental needs of the society, since these also would be the needs of the majority. If this argument is accepted, it follows that the technology which satisfies the basic needs will also maximize social welfare. The final group of contestants to be considered in the 'type' debate are those who prefer the advanced/intermediate technology classification. Their argument is that the developing countries do not have resources, especially manpower which can effectively use advanced technology yet their present stage of development is also such that makes rudimentary technology inappropriate as well. The best technology therefore should be that which is midway between the two. The advantages claimed for it reflects once more Morawetz's definition: it is the one which will make the most use of available resources and it will also maximize social welfare since the bulk of the population of many developing countries have grown

1. Some people have argued that this is an oversimplified view. They contend that the training required to make labour efficient in these countries would on the whole make labour intensive technology more expensive in their (the countries) circumstances than the capital intensive alternative.

beyond rudimentary technology even though they may not yet have reached the advanced one.

From the above discussion one tends to think that the 'type' choice is a straightforward matter and that policymakers in the developing countries have no other option but to choose either the labour intensive, or the intermediate technology, as these will be the appropriate type. This, however, has not been the case. Technology decisions have frequently been made in these countries in favour of the one which will be inappropriate in the above sense. The basis of the decision then is that the chosen technology is the one which satisfies the needs of the elite members of the society who also constitute the policymakers. That is what Stewart (1978 :111) has described as the political economy of technological choice, defining political economy as 'the distribution of the control over resources including the consumption and investment to which it gives rise'. The political economy of technological choice operates at two levels in favour of inappropriate technology in the under-developed countries. At one level the elites of these countries exercise their control over policy-making to choose inappropriate technology in the pursuit of their own interest. One is quick to recall here the tendency in Nigeria to use the most advanced technology to produce consumption goods which satisfy the tastes of the elites rather than the technology which combines most with the available resources or that which maximizes social welfare. The radio and television assembly industries, the many breweries, and the vehicle assembly industries (on which detailed reports are given later) are all of this kind; nor has the iron and steel projects, also reported on below, satisfied the appropriate technology criterion in terms of labour absorption. The political economy of technological choice operates at another level by the developed countries, using their control over technology to export the ones which give them maximum economic advantage rather than the ones which are more appropriate to the circumstances of the developing countries to which they are exported (Onimode, 1982:194); and once this has happened in the first instance it may be self-perpetuating.

The advanced country technology builds up biases in selection mechanisms in favour of its further use; this in turn leads to further decisions in favour of such technology.

(Stewart, 1978 : 111).

Vertical integration¹ is a common example of such biases which are built into the selection mechanism to ensure the continued use of the developed countries inappropriate technology by the under-developed nations once the technology has been introduced there.

Sources of Technology

The crises of choice for policymakers as it affects the source of technology addresses the question of whether the under-developed countries should rely more on their internal efforts to create the technology they need for industrialization or whether they should rely on external sources in what has come to be known as technology transfer and diffusion. These two sources of technology development however may be complementary, and the development of a nation's domestic technological capabilities could serve as a prerequisite to the effective adoption or adaptation of imported technology. More is said on this below. We shall now discuss each of the sources in turn and highlight the policy issues which they raise.

Technological Development Through Internal Efforts: Discussions about internal efforts as a source of technological development also emphasize innovation as the means by which this could be achieved. Let us therefore see for a start what innovation especially in the field of technological endeavour, means. Gee (1981:9) defines technological innovation as 'innovation that draws on available science-technology base'.

He argues further that it acts to link existing technological resources to economic output. Technological innovation therefore has two stimuli - it may be the result of a demand-pull or it may result from technology-push. In the first case innovation is stimulated from need recognition, and this, as Gee points out, accounts for three quarters of all successful innovations. The remaining one quarter comes from the second stimulus which is innovation

1. Vertical integration is the practice whereby the MNCs locate different stages in the production or marketing processes in different countries. The vehicle assembly industries in Nigeria would be an example of this, since all other stages in the production of the vehicle up to the assembly stage takes place outside Nigeria. In vertical integration, therefore, a developing country is dazzled with only a minute bit of a technology which it is eager to acquire only to increase its thirst for more, and therefore to open the gate for the progressive penetration of the MNC concerned after its first presence.

initiated from the availability of technical opportunities.¹

Where one may ask does the government or policymaker come into the innovation process, especially as a means of generating a country's technology internally? There is an acknowledged relationship between R & D and local technological efforts, hence countries which seek to generate technology internally are also known to have increased their R & D expenditures at the same time. The achievement of countries like India, Mexico and Brazil in technological innovation has been attributed to their heavy R & D expenditures (Baranson : 1981). Similarly, Japan's rapid technological growth has been due largely to the advances it was able to make in technological innovation, and this in turn has been the result of the huge investments in R & D (Baranson, 1981; Stewart, 1978). The experience of these countries has tended to give other countries in the under-developed world greater confidence in the potentialities of the internal source of technological development, and greater recognition of the role of R & D in that process. There has therefore been witnessed in recent times an explosion in research institutes in the developing countries. In Nigeria, for example, there are twenty-six research institutes all geared in one way or the other to technological innovation.² Whether developing countries should stress the internal generation of technology or whether they should stress the external source continues to generate a debate. It has been suggested for example (Babatunde, 1975) that technological development from external sources through technology transfer could be a more effective alternative for 'promoting productivity gains than the indigenous development of technology'. Babatunde argues that the absence of a science and technology base would make the latter a long term possibility as that base will have to be created first. We still maintain, however, that the employment of both sources would offer more benefit, even for productivity gains. The arguments supporting this are stipulated below. Before we come to that, it will be appropriate to discuss the opportunity offered by technology transfer and diffusion.

1. See also Westphal (UNIDO, 1979:40) who suggests that innovation consists of the following component parts:

- i. invention - the initial insight and its rudimentary embodiment.
- ii. entrepreneurship - the organization of innovation and the decision-making locus.
- iii. investment - the risking of capital.
- iv. development - carrying invention to commercial use; and
- v. diffusion - the first use of innovation and beyond.

2. Those considered to be directly related to the generation of industrial technology are discussed fully below.

Technological Development Through External Sources

Despite the increasing realization by the under-developed countries of the need to develop their domestic technological capabilities and the efforts being made to do so many of them have nevertheless emphasized technology transfer as an important source of technological development. This emphasis has been expressed either in the amount of resources devoted to that source or in the explicit statements made about it in policy documents and pronouncements. The emphatic policy statements about technology transfer as an important source of technology development for Nigeria contained in a variety of sources are presented later. For now the concept of technology transfer and the processes involved in using it for technological development are examined. This is followed with a further examination of the problems which those processes pose for policymaking and how they may be resolved.

Technology transfer may be defined as (Gruber & Marquis eds., 1969: 225) 'the utilization of an existing technique in an instance where it has not previously been used' (cited Smith III, 1981). In order, however, to be able to bring out all the essential elements and processes involved in technology transfer, it is perhaps better to describe rather than define it as Gee (1981 : 18) has done -

Simply put, technology transfer is the application of technology to a new use or user. It is the process by which technology developed for one purpose is employed either in a different application or by a new user. The activity involves principally the increased utilization of the existing science-technology base in new areas of application as opposed to its expansion by means of further R & D. It provides the means by which elements of the existing science-technology base can be more closely coupled to the innovation process in order to spur productivity growth.

The above quotation highlights some of the pertinent issues in technology policy. First it reflects the direction in which technology policy in the under-developed countries moves. This is illustrated with reference to Brazil and Nigeria below. Second, and even more importantly, it points to the complementarity which is possible between local innovative efforts and the external sources of technology. It should be observed here however that like Babatunde (referred to above), Gee emphasizes the existence of a science and technology base as an important factor in technological development but he does not think as Babatunde does that the development of such a

base and technology transfer are separate. Again the efforts being made in technological development through the establishment of research institutes alongside different kinds of technology agreements in the developing countries argue a simultaneous rather than a sequential action to explore the internal and external sources for the technological development of these countries. More is still said on this later. We shall return now to the concept of technology transfer.

It has been found useful to distinguish between technology transfer and technological diffusion. Smith III (1981) suggests that while technology diffusion is an unplanned movement of technology occurring mainly through imitation process, technology transfer is a 'purposive movement of established technology' (quote cited from Spencer, 1970 : 29). Stewart (1978) also distinguished between the two by arguing that technology transfer is a two-way affair and should involve the exchange of technology between the under-developed countries and the developed ones whereas technology diffusion is a one-way affair in which the under-developed countries rely solely on the developed world for their technology. This, Stewart further argues, has the disadvantage of cost, loss of control, unsuitable characteristics of the technology received and lack of effective indigenous scientific and innovative capacity. The exchange of technology involved in technology transfer, on the other hand, confers the advantage of being a late-comer to the technological race which enables the under-developed countries to use technology without going through the laborious and costly process of developing it.¹ The exchange of technology and the potential advantage it holds for developing countries has not been easy to achieve in practice, even though it is quite possible. One way in which the exchange may take place is for machinery exporting firms to agree to train local technicians in the developing countries to fabricate component parts for the exported machinery. A vehicle assembly plant for example may encourage the local production of piston and other engine components by indigenous technicians. It may even export some of those locally produced components to its other plants even in the home country.

1. Stewart argues, however, that the experiences of Russia and Japan suggest that uncontrolled technology transfer may be disadvantageous, hence it is necessary to qualify the thesis regarding the advantages of being a latecomer to the technological race with those experiences (1978 : 134).

It is not difficult to see why machinery exporting firms will not be enthusiastic about such an arrangement as the effective transfer of a given technology to a country which previously imports the products of that same technology would mean a loss of market to the firm exporting the product. Despite this hurdle however some developing countries have geared their technology policy toward ensuring that there is a causality between the importation of a technology and its effective transfer. Brazil's technology transfer policy, for example, acknowledges that the effective transfer of any technology should involve (Baranson, 1981):

- (a) knowledge of the technology;
- (b) knowledge of how to negotiate for it in advantageous terms;
- (c) the capacity to adapt and absorb newly acquired production systems, and,
- (d) the ability to reproduce or create technology in selected areas.

Mexico (Baranson, 1981) has a technology policy very similar to the above, and in the last chapter reference was made to the views of the Nigerian policymakers that the vehicle assembly industries in that country should lead to the progressive manufacture of automobile parts locally, until there is a complete transfer of the technology for making automobiles. These examples serve to illustrate the observation made above that Gee's description of technology transfer reflects in part the direction in which technology policies in the under-developed countries point. It can be argued that the Brazilian and the Nigerian views on the subject of technology transfer are parallel with Gee's stipulation that 'technology transfer is the application of technology to a new user'. Before we comment further on policy issues, it is appropriate to examine the methods by which technology transfer is effected.

Modes of Technology Transfer

Joint ventures, turnkeys, and licensing agreements are commonest among the methods used to effect technology transfer. In joint ventures a foreign firm and a host country jointly invest in an enterprise with the hope that at some time in the future (usually fixed in joint venture agreements) the foreign firm would transfer the technology involved in the enterprise to the indigens of the host country. The vehicle assembly enterprises in Nigeria, to which references have been made already, are all joint ventures between various foreign firms and Nigerian investors

which include in all cases the Federal Government and the Governments of the States contiguous to the area in which the projects are located.

In a turnkey project a foreign firm is given a contract to build a factory or construct a plant which it hands over to the contractee on completion. Turnkey projects are, however, frequently accompanied with management and staff training agreements. Under these agreements the contractor manages the project for a fixed period from the date of completion during which time it is to train indigenous personnel to takeover the management and operation of the project when the agreement expires. The two iron and steel complexes in Nigeria and its three rolling mills have been built with turnkey arrangements.

A licensing agreement is an arrangement which allows an indigenous enterprise to use the technology owned by a foreign firm for production on the payment of a fee. The agreement covers a fixed period, the hope being that within the period the indigenous firm should have been able to reproduce or adapt the licensed technology. Licensing agreements have been popular in the drinks industry in Nigeria.

The rest of this section considers further some of the policy issues discussed already and in particular how policymakers in the technology importing nations could ensure that their countries do not become too technologically dependent on their foreign sources of technology.

The advantages of technology transfer for the technological development of the under-developed countries have been noted already. However, technology transfer may also carry the risk of making an under-developed country too dependent on the foreign sources from which it obtains its technology. A major problem for policymakers in the under-developed world therefore, is how to use technology transfer advantageously without at the same time being exposed to the risk of technological dependence. On the face of it, this may seem impossible, for technology transfer by definition implies a degree of dependence yet it has been possible for countries to avoid such a risk through policies designed to achieve that purpose. Where this has happened, it provides a practical example which validates the thesis regarding the advantage of being a latecomer to the technological race (Stewart, 1978:135). Russia and Japan are cited (Stewart, 1978), as two countries which have taken full advantage of technology transfer in the above manner in their technological development. These

countries have been able to do so because of the seriousness with which they implemented their technology transfer policies which were also carefully worked out in the first instance.¹ There are two approaches to a policy of avoiding technological dependence (Stewart :1978) - a country may control technology imports or it may reduce technology imports. The success of Japan and Russia derives from pursuing the first option. Thus, Stewart observes that there are three common features of technology policy in both countries:-

- (a) strict control over technology imports which are deliberately restricted to particular areas where need is considered greatest, care being taken to ensure that they do not inhibit local efforts in technology creation;
- (b) technology imports are allowed through licensing agreements but these were not allowed to be accompanied with majority-shareholding foreign investment;
- (c) modification and adaptation of imported technology before use. In Japan in particular one third of R & D expenditure was devoted to adapting foreign technology.

The second policy, that of reducing technology import, differs from the above in two important respects. In reducing technology only in areas in which local technology is completely impossible will foreign technology be admissible, but in the control of technology foreign import of the commodity is allowed in both possible and impossible areas with the hope of learning from it. In reducing technology import also, local and foreign R & D would be complementary in different industries but in the policy of control they will be made complementary in the same industries. This difference may be traced to the main objective of the two policies. In reducing technology a major objective is to gain insight into an imported technology and to use this insight to generate indigenous technological efforts in as many different industries as possible, even if the results of such efforts are imperfect. In the policy of technology control on the other hand, the objective would be to use insights gained from an imported technology to perfect its kind developed through indigenous efforts for a particular industry.

1. India, on the other hand, is shown to have a similar policy on paper but has not benefited from technology transfer as Russia and Japan because of the slack in implementation.

It will be shown later that Nigeria's technology policies have not attained this level of clarity and strategic definitiveness. Its technology policy cannot, for example, be classified under any of the two approaches just discussed. It allows free imports of technology with the belief that they will enhance technological development. This tends towards the 'control' approach. However there is nothing of the regulatory mechanisms, such as those identified above for Russia and Japan being consciously or systematically built into the import of technology into Nigeria. In particular the foreign partners of all the projects with the greatest potential for technology transfer have a majority shareholding, and, accordingly, are in control of vital decision making in these projects. The negative consequences of this for the technological development of the country are discussed later in this chapter. But it may be observed presently that technology import is not always as easy to manipulate by policy as the Russian and Japanese examples suggest. Stewart (1978) argues that technology import once allowed establishes a hold on policy by changing market and economic conditions and creating vested interests which may make them extremely difficult to manage. For many under-developed countries, therefore, a policy of control or reduction of technology import may be difficult or even impossible to implement in practice for the vested interests which may oppose such a move usually include those in a position to influence or even determine the course of public policy. A more fertile ground for technology policy in these countries is to be found in greater specialization and exchange between them (Stewart, 1978). There may also be an advantage in regional co-ordination and co-operation over technology imports. The Andean Pact countries have been popularly cited as a worthy example in this respect (Hood and Young, 1979). Even these more possible courses of action have not so far been built into Nigeria's technology strategy. Once more this may result, at least in part, from circumstances beyond the control of policymakers. None of Nigeria's neighbours has as vigorous an industrialization policy as Nigeria has. These countries are too small and too poorly endowed with resources to embark on such a policy. Hence even though a West African Economic Community (ECOWAS), of which Nigeria is a member, is in the process of evolving, one is not too optimistic about it having an immediate impact on the region's technology policies and technology development. The section which follows examines technology policy in Nigeria. An attempt is made there to show how the theoretical issues raised in the preceding discussions have been applied to technological policymaking.

TECHNOLOGY STRATEGY IN NIGERIA

It was stated earlier on that Nigeria proclaimed a policy of rapid industrialization soon after it became independent in 1960. That policy, however, did not take cognisance of the pivotal role which technology plays in an industrialization policy, hence no reference was made to technology in the initial stages of the attempt to formulate an industrialization policy for the country. There was for example no mention of technology in the first and second national development plans, even though, as we have seen, these plans did contain policies and programmes for the industrialization of Nigeria. The first attempt to formulate an explicit technology policy for the country was made in 1970 by a decree (The Nigerian Council for Science and Technology Decree, 1970) which established the Nigerian Council for Science and Technology to serve as the 'machinery for the formulation of a national science policy and the co-ordination of scientific activities throughout the country'. Its functions included among others, 'considering and advising the government generally on all scientific activities especially scientific research and technology, the application of the result of research, scientific and technical manpower, and the transfer of technology into agriculture and industry'. In January, 1977 another decree transformed the NCST into the National Science and Technology Development Agency, this time with 'executive responsibility for the promotion and development of science and technology, including initiation of policy in relation to scientific research and technology...'. It was required as part of its functions 'to prepare periodic master plans for the development of science and technology....'. The decision of the civilian administration to establish a Ministry of Science and Technology soon after it took office in 1979, was the culmination of this search for a body to assume responsibility for the formulation and implementation of technology policy for Nigeria. The establishment of a Ministry for this purpose has meant that technology policy can be considered directly at the highest levels with the other policies of the government, and that it has, therefore, got a better chance to compete for a fair share in the disbursement of government resources.

The Ministry of Science and Technology, set up by The Science and Technology Act, 1980, is given responsibility for promoting and developing scientific and technological research in the country. Specifically, the Ministry is to -

- i. formulate national policy on science and technology;
- ii. promote science and technology research;
- iii. liaise with Universities and Federal Polytechnics; and
- iv. promote and administer technology transfer programmes.

As we go through the rest of this section, we shall be referring to the various activities undertaken by the Ministry and its predecessors to achieve the task (common to all of them) of formulating and implementing a science and technology policy for Nigeria. The section is divided into two main parts. The first part discusses the perspective on Nigeria's technology policy, including its conceptualization, its goals and objectives and the methods to be used for technology development in the country. The second part examines the implementation of the country's technology policy. This includes reports on R & D programmes, R & D institutions and public enterprises involved in technology development.

Perspectives on Technology Policy in Nigeria

A convenient starting point for the discussion here is to see how those charged with the responsibility for technology policy in Nigeria perceive the task which they are called upon to achieve. There are four perspectives which underlie the thinking in technology development by those charged with technological policymaking in the country. These perspectives may be posed as problems calling for solutions (interviews, 9/8/82: Director, Department of Policy Planning Programming, and Evaluation, Ministry of Science and Technology). First, there is the problem of capability; Nigeria lacks the capability to develop the technology it uses because it uses the highest level of technology available. Second, there is the problem of assessment; the massive importation of technology products into the

-
1. The Ministry of Science and Technology has within it two departments which are charged with the specific task of formulating and implementing technology policy and it is in these departments that interviews were conducted for this research. They are (a) Department of Science and Technology Policy Planning, Programming and Evaluation; (b) Department of Technology Transfer and Education.

country is not followed with a proper evaluation to determine whether they are the right type or they are in the right shape. Third, the problem of training and education; Nigerian scientists are described as the 'know why without know how' types; hence there are many of them with a Ph.D. in physics who cannot apply it practically to create marketable products, yet as the Director argues, scientists are best known for their ability to make, that is the ability to apply scientific theory to create physical products such as machinery, tools and other equipments. Fourth, the volume of technology required. Nigeria requires enormous quantity of technological products which should also for policymakers mean an enormous urge to create those products.

The policy objectives of technological development as they have evolved over the years and the technology strategy being currently pursued by the Ministry of Science and Technology appear to have been meant as solutions to the above problems. It will be appropriate therefore to examine these policy objectives and strategy to see whether indeed they contain solutions for the technological development problems identified above.

The NCST in 1975 brought out a document entitled National Policies and Priorities For Research in Science and Technology. Chapter two of this document contained the 'General Objectives and Policies in Science and Technology'. There the Council indicated its intention to pursue a dynamic national science policy which is aimed to create 'within the shortest possible time, a self-sustaining national science and technology capability, and to direct this competence to the main problems of social and economic development', (p.18). To achieve the above objective, the Council identified five areas in which policy measures were to be taken. They are: scientific and technical manpower development; research and development activities; transfer of technology; co-ordination of national scientific activities; and, international collaboration in science and technology. Let us see the relationship between the above policy objectives and those of the Ministry of Science and Technology which have been stated in the Fourth Plan (208-9). The aim of technology policy in the plan is to make the application of science and technology as a basis for promoting the socio-economic development of the country. The need to develop the nation's human and material resources as a pre-requisite to achieving the above task

is stressed. The following specific policies have, therefore, been proposed in the plan:

- i. development of a comprehensive policy on science and technology;
- ii. promotion of scientific and technological research;
- iii. development of technical manpower;
- iv. direction, co-ordination and supervision of science and technology research;
- v. dissemination and commercial exploitation of the result of scientific and technological research;
- vi. re-orientation of the country's science and technology education and training to ensure relevance of research to the real needs of the economy; and
- vii. close links between those who invent technology and those who use it.

One easily notices a close similarity between the above objectives and those of the NCST stated before. It can therefore be argued that only since 1975 has there been a continuous technology policy in Nigeria. It is also noticeable that the two groups of objectives tend in fact to serve as solutions to the technology problems of Nigeria as they are perceived by its policymakers. This is, however, truer of the Ministry's objectives just presented. It was actually stated by the Director that these objectives form the foundation of the technology strategy which is currently pursued by his Ministry. There are five strands in that strategy. Each strand is discussed below and it is related first to the technology problems referred to above and then to the overall industrialisation policy of Nigeria. Issues relating to the technology debate are also highlighted where they appear.

STRANDS IN NIGERIA'S TECHNOLOGY STRATEGY

A foremost strand in Nigeria's technology strategy is the development of scientific and technological manpower. The central aim in this strand is to train scientists and technologists in a way that will enable them to use technology. Hence trained scientists and engineers are to be deployed to the steel user industries where they will be dealing with such practical technical activities as ironmongering, billeting, forging, rolling, blooming, moulding and so on. We see in the above, therefore, a conscious attempt being made to develop a capability for 'knowing how' rather than just 'knowing why' in the Nigerian scientists. It is an attempt to make it possible to

to equate the Nigerian scientists with the ability to make which, as the Director argued above, is the mark of a true scientist.

Secondly, the Ministry aims to encourage and harness local efforts in the creation of technology. This seems to be a response to the many attempts at innovations and even inventions in Nigeria in the last few years. For example, about ten years ago a lecturer in one of the country's universities, the University of Ife, made a machine for crushing yam. This stuff is found in the daily diet of at least 40% of Nigerians. Previously the food was prepared through the laborious method of pounding the yam with a pestle in a mortar both made out of wood. Another university lecturer, at the Ahmadu Bello University, made a machine for operating traffic lights, and in 1980, as an example of eccentric creativity, a barber in Maiduguri, one of the country's state capitals, drew the attention of the nation by mounting a Volkswagen beetle-car engine on an aeroplane structure which he built from scrap metals with the intention of ultimately flying it. The last in this series of local innovative efforts was made by a self-employed researcher, who had earlier on been trained in his father's trade of blacksmithing and welding. In 1980 this researcher developed a solar energy electric generator which he has improved upon to build a solar car. One was, therefore, eager to know how exactly the Ministry has responded to these scientific and technological efforts, hence a question was put to the Director to find that out. In reply he emphasised that the Ministry is committed to encouraging and harnessing any local innovation and invention. A standing committee of experts, he stated, has, therefore, been set up within the Ministry for assessing 'claims to technological invention, innovation and adaptation'. He stated further that the Ministry has evaluated all claims to inventions and that those found to be viable and feasible have been given further encouragement. If this were true, it can then be argued that action is being taken here to develop the capability of Nigeria to create the technology it uses. Since the inventions also include the most advanced technology such as solar engineering, a successful policy here would mean that Nigeria may be able to develop technologically through the advanced rather than the intermediate technology. Another implication of a serious policy here is that Nigeria would be exploring its internal sources of technological development. A story in one of the Nigerian newspapers - The Sunday Punch : September 12th, 1982 - however, casts grave doubts on the seriousness with which the Ministry

is committed to encouraging the internal generation of technology such as those reported above. The story in fact concerns the solar car already mentioned. Its inventor¹ according to that story has exhausted all avenues for getting assistance from the Ministry to no avail, not even after the Minister for Science and Technology had ridden in the car. Also, in an attempt to draw more attention and sympathy of the policymakers, the inventor took the car to display at the National Assembly (the lawmaking body in the country). The genesis of the problem, as the story has it, is that the Ministry is not keen on this invention because its inventor does not hold a university degree in engineering, (he only has an elementary education), hence the official attitude to the invention is that 'it has no scientific basis' (Sunday Punch, 12/9/82).² The inventor was, at the time of the newspaper report waiting to hear from the United Nations Development Programme, which he had contacted as a last resort.

Thirdly there is a programme of action for applying the results of research discoveries to industry. Even though the government may not have done enough to help individual efforts at inventions, it is eager to harness and use the results of discoveries made in its research institutes.³ The argument here is that some of the discoveries of the institutes have not been taken up by private entrepreneurs, because in the latter's views they fall within the highly risky areas of industry. A Research Product Development Corporation has, therefore, been established to go round the institutes to collect discoveries which are lying dormant and to go into production with them. The aim of this action is to prove the commercial viability of the discoveries. Once sufficiently proved the corporation would hand over a technology or invention to a private entrepreneur and go on to prove virgin ones. Another body, the Extension Research and Liaison Services, has also been established to educate private entrepreneurs about new discoveries and their possible uses. The actions just described show an attempt to aid technological development by encouraging entrepreneurs and researchers alike. It was noted in the Fourth Plan (p.208) that the unwillingness of entrepreneurs to commercialize research discoveries serves as a disincentive

1. A photograph of the car being driven by the inventor was displayed on the front page of the Sunday Punch in question.

2. This point was echoed in the opinion column of another newspaper, the Nigerian Daily Times (16/9/82). The paper argued that 'all efforts of the inventor to get financial assistance from government have failed because some top civil servants feel that the inventor has no academic qualifications and as such his invention has no scientific basis'. This the paper continues, 'is ridiculous! [because] top scientists like Isaac Newton did not see the four walls of a university'. 'What,' the paper asks, 'have Nigerian "scientists" with chains of degrees invented for this nation?'

3. ... on the activities of the research institutes.

to researchers and that it also deprives the research institutes of sources of incomes for further research.

Fourthly, there is a programme for mobilizing technical skills in the informal sector. Nigeria is a country where one finds at every turn small-scale artisan and technical operations sometimes undertaken by a single individual. They include blacksmithing and repair works of all kinds especially bicycle and motor repairs. The term 'roadside mechanics' is used to describe the scores of motor mechanics found in all urban centres of Nigeria, who merely put up a shade over their heads and with their tools carry out various kinds of repair works, involving body painting and engineering, to motor vehicles. The Ministry has recognised this group of artisans as a reservoir of technical skills which can be tapped in the drive to develop the technological capability of the country. The Ministry has, therefore, set in motion a scheme for the 'systematic study of the roadside mechanics to find their training needs and how their skills can be evaluated'. Two groups, one at the Ibadan Polytechnic and the other at the University of Nigeria, Nsukka, have been commissioned to undertake the above study. The Ibadan study group is to limit their study to Ibadan, while the Nsukka group, under a Professor of Mechanical Engineering, is to undertake a national study. The actions just reported may be seen as a response to the great urge to create the technology products consumed in Nigeria through internal efforts. This urge, as was pointed out above, is itself seen as the proper response to the great urge to consume technology products by Nigerians. In the urge to create such products, therefore, the Ministry is searching and mobilising all available talents which can in one way or another create technology products. This conclusion is also valid for the actions taken in the other strands discussed already.

Finally, Nigeria's technology strategy embraces technology transfer. Earlier in this chapter it was shown that technology transfer occupies an important part in the theoretical exposition regarding the sources from which the under-developed countries may obtain their technology. It was also shown that the under-developed countries themselves have emphasized technology transfer as an important source for their technology development and that some of them have an elaborate policy perspective on the subject. In Nigeria, too, technology transfer has been mentioned and emphasized since the country embarked on a policy of technological development. The

third plan and the NCST policy document (cited above) both mentioned technology transfer as an important source of technology development for Nigeria. This trend has been continued by the Ministry of Science and Technology, which, as we have seen, has created a Department of Technology Transfer and Education. The department was created by an administrative instrument in June, 1980, and given responsibility which includes the following:

- i. promotion and co-ordination of technology transfer and acquisition transactions;
- ii. identification of national regulatory measures to stimulate and ensure effective transfer of technology;
- iii. monitoring and evaluation of restrictive practices affecting the actual transfer of know-how in technology investment agreements;
- iv. evaluation of the transfer of know-how and its diffusion in the national economy.

Although the department was created in 1980, it did not become functional until 1982; hence its functions were still being performed by the engineering division of the Ministry of Industries. It is necessary, therefore, to discuss briefly the activities of this division.

The engineering division of the Ministry of Industries, according to its Deputy Secretary, 'is the eye of the government in engineering matters ranging from bicycles to motor vehicles, including all other manufacturing activities'. Its activities regarding technology transfer concern the supervision of technology agreements to ensure that they do not contain clauses which will make the effective transfer of the technology involved impossible. Where this is found to have been the case, the agreement is cancelled. The division also ensures that agreements of joint ventures do not contain loopholes which can be exploited either to cheat the indigenous partners of the ventures or to put them in a position of undue disadvantage. The Deputy Secretary cited a specific example of a foreign firm, Ferdinand Industries, which signed an agreement with an indigenous entrepreneur to produce air conditioners, refrigerators and electronics. On inspection it was found that the agreement contained a clause which implied that all working capital can be withdrawn at a minute's notice by the foreign technical partners. The division refused to give the necessary sanction and the venture could not take off.

The preceding discussion has been concerned mainly with the formulation of Nigeria's technology strategy, although some of the discussion had touched on issues of implementation where that was found to be necessary at that point. What follows, therefore, is a fuller exploration of the implementation of the strategy. First, R & D is discussed exhaustively, including the policies relating to it, private and public R & D, and R & D expenditures. This is followed with a detailed report on selected R & D directly related to manufacturing. Second, another detailed report is given on the public enterprises involved in technology development. It is here that actual examples regarding the dynamics of technology transfer in Nigeria are provided.

R & D ACTIVITIES IN NIGERIA

Policies Relating to R & D

In an earlier discussion in this chapter, it was shown that R & D is very vital to any technology development efforts. Hence those developing countries, it was also shown, which have made important advances in technology development owe it to vigorous R & D efforts. The majority of the developing countries have not been so active in these efforts however. To start with, they may not have the human and material resources to engage in R & D even at the most elementary level. Nigeria does not belong to this group. With its diverse natural resources and the level attained in its human resource development, Nigeria is favourably placed to undertake R & D far beyond the elementary and even the intermediate levels of technology. The reason why this has not happened is because the country suffers with other developing countries from two other impediments to a vigorous and fruitful R & D in those places - the deliberate policy of the MNCs not to encourage R & D in host countries and the imperfection in R & D policies themselves. It is these more than anything else that account for the imbalance between the level of R & D actually taking place in Nigeria and the level which is commensurate with its human and material resources or which is compatible with the country's policy of rapid industrialization. These observations are illustrated in the discussion which follows.

The poor performance of R & D in Nigeria is due more to the implementation of R & D policies than their formulation, for there has been a clear and consistent policy on this subject on paper since 1975. In the NCST policy document (1975), the following were stated as the primary objectives

of research in the industrial sector:

- i. to provide research and development support to local industries, particularly in the utilization of local raw materials, equipment performance tests, trouble shooting adaptation, design and fabrication activities;
- ii. to support local food processing so as to preserve local foodstuffs and ensure their regular supply;
- iii. to support the processing of raw resources meant for export so as to increase their foreign exchange earning capacities;
- iv. to enable local scientists and technologists acquire the necessary skills in industrial research and development, and therefore be in a position to offer suitable advice on the selection of appropriate technology for industrial projects;
- v. to assist in the production of simple equipment and implements for domestic use and in support of small and medium-sized industries; and
- v. to provide standards for industrial products.

It can be argued that the NCST policy on industrial research itemized above would pass any test of policy clarity and comprehensiveness. This observation would also be true of 'the objective of research programmes and projects in the industrial sector' which is stated in the fourth plan. That objective is 'to find accelerated ways of enhancing the country's rate of acquisition of technological know-how and providing greater support services to local industrialization'. The task assigned to these research programmes is to 'carry out indepth study of machines and technological processes in use and encourage innovations through adaptation of equipment and processes, substitution of new indigenous processes that are more suitable to our environmental conditions and local resources...' (p.21). The extent to which the above policy statements, laudable as they are, have been executed may be seen if we examine the quality and quantity of public and private R & D being undertaken and the amount of financial resources which go into it. This is what follows.

Public and Private R & D in Nigeria

The policy on R & D in Nigeria recognizes the necessity for the mutual participation of the public and private sectors in that activity. On its part the government has established many research institutes in an attempt to stimulate and support R & D in the country. On the other hand, as we saw in the last chapter, it has given encouragement to the private sector to undertake its own R & D through tax concessions. The actual R & D going on in some of the government research institutes is presented below. As for the private sector, its response to government encouragement in respect of R & D has been very poor. It has been discovered that the MNCs in Nigeria prefer to concentrate their R & D in the parent firms which, of course, are located outside the country. A survey of the manufacturing establishments in Nigeria conducted by the NCST in 1971 revealed that only 13% of the responding firms undertook some form of R & D within the country, and, as we saw in the last chapter, more than two-thirds of the manufacturing firms in Nigeria at this time were foreign owned.¹ This reluctance of the foreign firms operating in Nigeria to undertake R & D still persists and can even be found in joint ventures where public authorities hold a majority of the shares. In the Anambara Motor Manufacturing Company (ANAMMCO), a venture in which the Federal and three State Governments have 52% equity between them; with the technical partner DBAG of Germany having only 40%, an engineer in the production division revealed that all the research of the company was conducted in Germany, including research necessitated by problems encountered in the process of operation (interview : 31/8/82). ANAMMCO is discussed in detail below, to illustrate the problem of technology transfer encountered in the vehicle assembly industries in Nigeria. Meanwhile the distribution of R & D expenditures between the public and the private sector is discussed.

1. In a paper prepared for the Regional Conference on the 'Role of Universities and Research Institutions in the transfer of technology in Africa', Akinrele (1976), argues that very little research activity relevant to the manufacturing industry in Nigeria was carried out by the MNCs operating in the country. Instead, he further argues, activities such as quality control operations and technical services were equated to research. Akinrele was the Director of the Federal Institute of Industrial Research Oshodi, Lagos, at this time.

R & D Expenditure

At the inaugural address of the NCST in May 1970, the then Head of State, Yakubu Gowon, said that Nigeria had been spending between ₦26 to ₦32m annually on R & D in the four years previous to that date. This amount he stated represented 1% of the country's GNP and was 'a creditable achievement', as he argued because Nigeria is a developing country. Between 1970 and 1973 in fact a total of ₦38.9m was spent on recurrent expenditure in R & D. This sum is distributed as follows:

Government establishments	-	₦ 20.3m.
Universities	-	₦ 13.4m.
Private establishments	-	₦ 5.2m.

In percentages, the sums represented 52.3, 34.4, and 13.3 per cent respectively. Thus government establishments and the universities which are also funded from public sources accounted for 86.7% of all recurrent expenditure on R & D within the period. By 1975 the amount budgeted by the NCST for disbursement to government research establishments had shot up to ₦159.9m. That sum excludes the universities' research budgets. During the fourth plan period the Ministry of Science and Technology plans a capital programme of ₦600m out of which ₦543.5m or 90.6% is to be spent by government research institutes. Industrial research alone is to get ₦111.1m (18.5%). This excludes the ₦9m and the ₦13m which are respectively to be spent on the Research Product Corporation, and studies and research into the technology of the future.

The figures on R & D expenditures presented above validate the observations made earlier regarding the factors which can be held responsible for the low levels of R & D taking place in Nigeria. They confirm the statement that Nigeria is prepared to spend huge sums of money on R & D. They also show the disproportionate distribution of R & D expenditure between the public and the private sector. There is the problem, therefore, of whether government research institutes can achieve significant results on their own without the active collaboration of the MNCs who, after all, own and control more than 90% of the industrial technology being used in Nigeria. This issue is discussed further after the actual R & D taking place in the government research institutes has been considered.

Reports on Government Institutes concerned with Industrial R & D

There are twenty-six Federal government-owned research institutes in Nigeria: eighteen are concerned with agricultural research, although some of them like the Leather Research Institute, the Nigerian Institute for Oil Palm Research, the Cocoa Research Institute, and the Rubber Research Institute, are all engaged in activities which are important to industry. Other research institutes, apart from the Universities whose R & D may have consequences for technological development, are the National Institute for Chemical Research, the Nigerian Institute for Energy Research, the National Institute for Remote Sensing and National Resources Assessment, the Nigerian Building and Road Research Institute and the National Institute for Medical Research. All but the last two are new - they were created during the fourth plan. The report which follows, however, deals only with those research institutes and establishments which are concerned with industrial research; that is, research which is directly related to manufacturing industry. The essence of this exercise is to make it possible to comment effectively on the implication of the failure of the MNCs operating in Nigeria to conduct their R & D locally. The following institutions have been selected for discussion on the criterion stated above: The Project Development Institute (PRODA), Enugu; The Federal Institute of Industrial Research Oshodi (FIIRO), Lagos; The Research Products Development Corporation; and The National Technology Development Centre.

(a) Project Development Institute

PRODA¹ and FIIRO are the only institutes concerned solely with industrial research owned and funded by the government. The current policy is that the two institutes should specialize in different areas of research. Under this arrangement, the FIIRO is to specialize in food technology while PRODA is to concentrate its activities on research and development in electrical power and electronic elements technology. It is also to attempt to develop and manufacture laboratory equipment (Fourth Plan : 213). PRODA, however, sees its responsibility much wider than this in its details. According to the institute, its responsibility is 'carrying out research in industrial materials and processes to pilot plant stages, including engineering,

1. PRODA was originally established in 1971 by the then East Central State Government, but was later taken over by the Federal Government. In the States creation exercise of 1976, East Central State was broken up into Anambara and Imo States.

design, development and fabrication. The Institute's approach to its task is what it has described as 'research and production' as opposed to the more familiar notion of research and development. It argues that there is a great need for research results to be commercialized as soon as they are discovered in a developing country, for only then can they contribute fully to raising the quality of life in those countries, and hence justify the zeal displayed by the government in financing them. Under the Institute's new approach therefore, it may:

- i. produce industrial goods and services on a pilot plant scale to be sold to the public;
- ii. sell its finished projects to business entrepreneurs for their commercial production;
- iii. transfer the commercial production of research results to a public company or corporation which the government may have created for such purposes;
- iv. jointly undertake the production of its research findings with the government or a private investor.

Some of the above methods are already being used for the production and commercialization of the Institute's research achievements, which number up to 13. The most important are:

- i. Gari¹ Processing Machine: the Institute has designed, fabricated, assembled and tested many of these machines. They have been employed in the commercial production of gari since 1980, by three companies, two of which are publicly owned.
- ii. Bread Oven: Two varieties of bread ovens have been developed. The first is a large coal-gas-fired oven for commercial baking; the second is a kero-fired oven sufficient only for cottage bakery. The two types of oven have been sold to the public and are widely used especially in Anambara State where the Institute is located, and in the adjacent State of Imo.
- iii. PRODA Gas Producer: This is a portable producer gas convertor in which coal or lignite is gasified. It is being used to fire PRODA bread ovens and gari fryers.
- iv. Cottage Egg-Incubator: This is either kero or gas heated and has a capacity for 270 eggs. It is designed for use by individual farmers and is now being used in chicken production by such farmers.

1. Gari is foodstuff made from crushed cassava and is eaten throughout Nigeria. It is more popular in the southern part of the country where in one form or another it forms part of the daily diet of at least 60% of the inhabitants of those areas.

(b) Federal Institute of Industrial Research Oshodi (FIIRO)

FIIRO was established in 1956 and mandated to:

- i. conduct researches into locally available raw materials with a view to determining their potential industrial uses; and
- ii. to upgrade the traditional methods of production.

FIIRO, as pointed out above, is to concentrate on researches into food technology. The organisation of the Institute reflects this. It is divided into sections called programmes; and there are eight of them: Engineering; Food Waste and Utilization; Fruits and Vegetables; Flavours and Essences; Grains, Roots and Tubers; Protein Research and Nutrition; Material Development; Techno-Economic; and Library Information and Documentation. Three of the programmes are discussed briefly below.

1. The Engineering Programme

The programme has the task of designing and fabricating equipment required for producing food on small-industrial scale. Among the equipment already produced are:

- i. FIIRO Still: it is an apparatus for distilling portable alcohol from fermentable wort;
- ii. Palm-wine Pasteurizer and Bottle Corking Machine;
- iii. Vinegar Generator: it produces vinegar from palm wine;
- iv. Tray Drier: used for smoke-curing fish and meat;
- v. Dyeing Jig: an apparatus for mechanical dyeing; and
- vi. Soap making kit.

Further the programme has developed a solar dryer for grains and other agricultural products.

2. Materials Development Programme

It is assigned the task of investigating the possible utilization of locally available natural resources as raw materials in the pulp and paper, ceramics and textile industries. The projects which have been executed here include:

- i. Formulation of floor and wall tile bodies using available raw ceramic.
- ii. Formulation of glazes to match the floor and wall tiles.

- iii. Processing of clay for paint industry.
- iv. Bleaching of clays.
- v. Utilization of Nigerian vegetable fibres in the textile industry.
- vi. Development of starch for the textile industry.
- vii. Improvement of traditional dyeing with indigo.

3. Techno-Economic Studies Programme

It is concerned with giving low-cost advisory management services to Nigerian manufacturing entrepreneurs. Its functions also include:

- i. technical assistance and consultancy services to industries; and
- ii. identification of the needs of the Nigerian industrial sector and the initiation of research projects designed to satisfy the needs.

(c) Research Products Development Corporation

This has been established to provide a bridge between research discoveries and their commercial production. It was created in 1975 and given the following functions:

- i. to stimulate the development of patents and processes arising from researches conducted in government research institutes and universities, and in private laboratories;
- ii. to sponsor or finance and manage the commercialization of the results of industrial research of proven viability;
- iii. to sponsor or undertake pilot plant tests and feasibility studies of experimental results of economic significance;
- iv. to provide facilities for the demonstration of new processes, and for training of workers for potential entrepreneurs.

The Corporation has not been very active since its creation. The Ministry of Science and Technology has now developed a master plan for using the Corporation for the commercialization of research findings of the government research institutes, especially in areas of high risk, as mentioned above.

(d) National Technology Development Centre

This is a new institution which was established under the fourth plan. The objective of the institution is 'to find accelerated ways of enhancing the country's rate of acquisition of technological know-how and providing greater support services to local industrialization' (Fourth Plan : 212). The centre has the task of studying machines and technology to facilitate their adaptation. It is expected also to undertake the evaluation, analysis and modification of foreign or imported technologies and to undertake their engineering design to suit local condition and needs. The centre has not taken off effectively when this research was conducted and did not therefore yield any data for inclusion in this study. Its importance in the programme of the Ministry of Science and Technology was however stressed by the Director interviewed (12/8/82) in the Ministry.

We shall now examine the major issues arising from the reports on R & D activities just given. The account given in that report shows that the funding of research institutes is left solely to the government. This is not borne out of the experiences of other countries where research institutes have been used to accelerate the pace of technological development. In Japan, Mexico and Brazil, for example, the funding of such institutes is jointly shared between the private and the public sector with the former taking the larger share. The importance of this is that it makes research projects more relevant to industry as those funding the institutes will ensure that research projects are useful to their enterprises. The failure of the private sector to contribute to the financing of the research institutes in Nigeria should explain then why there is little interaction between the institutes and industry in the country. The problem arising from the absence of interaction between the two is compounded by the MNCs practice of taking their research needs abroad. What it all amounts to is that the MNCs operating in Nigeria do not use the country's research institutes. As we shall see below, all the heavy engineering projects being undertaken in Nigeria are handled by foreign firms. Since these firms do not use local research institutes or engage in local research themselves, it is very doubtful then that those projects will assist Nigeria to develop its capability for engineering research. Our report on R & D above shows in fact that none of the so-called research achievements of the research institutes is of any spectacular or even moderate significance

compared with the technology in use in the country. The wide gulf between the two, it may be suggested, could only have resulted from the absence of contact between the research institutes and the technology held by the MNCs operating in Nigeria.

REPORT ON PUBLIC ENTERPRISES WHICH HAVE POTENTIAL FOR
TECHNOLOGY DEVELOPMENT THROUGH TECHNOLOGY TRANSFER.

A major objective of the Nigerian public authorities for undertaking projects of heavy engineering is that these projects should lead to the acquisition of the technology involved by Nigeria. We referred in the last chapter (p.110), to the press conference in which the Minister for Industries stressed that the policy of the Nigerian Government regarding the vehicle assembly industries is that they should ultimately lead to the manufacture of the vehicles involved in Nigeria from start to finish. The assumption of such a policy is that the more the share of local manufacture in the assembly plant, the more they will aid the transfer of automobile technology. The report which follows aims to provide empirical evidence to show the extent to which the above policy assumption is being validated. Two industries have been reported on: the vehicle assembly industries themselves and the iron and steel industries. They are also the heaviest engineering industries ever undertaken in Nigeria.

1. The Vehicle Assembly Plants

There are in existence the following vehicle assembly plants in Nigeria: The Anambara Motor Manufacturing Company (ANAMMCO), Enugu; The National Truck Manufacturers, Kano; The Peugeot Assembly Nigeria Ltd., Kaduna; Volkswagen of Nigeria Ltd, Lagos; Leyland Nigeria Ltd., Ibadan; The Styre Nigeria Ltd., Bauchi, and the Federated Motors Industries, Lagos. We shall, for lack of space, discuss only the ANAMMCO in detail,¹ to illustrate the extent to which these assembly plants have been, or could be instrumental to technology development in Nigeria.

ANAMMCO is a project in which the foreign technical partners DBAG of Germany own 40%, while the Federal Government of Nigeria owns 35%. Other shareholders are: Anambara State Government, 12%; Imo State Government, 2.5%;

1. Although all the plants were covered in the research; and will be compared broadly with ANAMMCO below.

Rivers State Government, 2.5%; Leventis Nigeria Ltd., 4%; and other Nigerians, 4%. The company assembles Mercedes-Benz trucks, of which it turned out a total of 4,400 in 1981 and was hoping to raise the number to 6,000 in 1982. Also, there were plans to assemble the Mercedes-Benz G Model 4-wheel drive which belongs to the jeep family of cars. ANAMMCO's organizational chart has the Managing Director at the top and four divisions under him, each headed by a Manager. They are the Technical, the Finance, the Marketing, and the Personnel divisions. The Managers (Divisional Heads) together with the Managing Director constitute the management team. Each division is further divided into departments. The technical division (the division most relevant to the discussion here) has the following departments: production/assembly, production engineering/control, quality control and maintenance. The project agreement has three arrangements for filling the higher level positions in the company. The first positions are those which are permanently assigned to the technical partners. They are the Managing Director, the Quality Control Manager, the Production Manager and the Works Director. These positions are to be held permanently by the technical partners up to 1991, but are renewable thereafter. The second group of positions are those which may be held by the technical partners if no Nigerians can be recruited to fill them, but this has to be on a 3-year renewable basis. The positions of the Financial Controller, the Training Manager, the Materials, Services and Spare Parts Manager were being held as such by the technical partners at the time of this study. The third group of positions are exclusively reserved for Nigerians: the Chief Accountant, the Director of Audits, the Legal Adviser, the Assistant Managing Director, and the Personnel Manager. The position of the Managing Director is to be held by the technical partners for as long as they have the largest single share. The agreement also stipulates that all the positions held by the expatriates are to be under-studied by Nigerians to prepare them for the eventual take-over of such positions. Information collected during this research reveals that the management has not been keen on implementing the section of the agreement regarding the recruitment of Nigerians into top positions in the company. There is also a slack in implementing the 'understudy' article. In an interview with the Secretary of the company, he was quick to point out that the positions stipulated for understudy by Nigerians in the agreement are not in fact being understudied. The implementation of that part of the agreement is left to the management, as is the part concerning the recruitment of Nigerians for the second group of positions mentioned above. This, too, as the Secretary pointed out, is not being implemented as a thorough search is

not carried out to recruit Nigerians for those positions; hence expatriates continue to occupy them. The management is aided in this, the Secretary suggested, by the failure of the Ministry of Internal Affairs to verify claims that no Nigerians are available for recruitment into the positions in question before granting expatriate quota to fill them. On the question of the degree of technological learning taking place in ANAMMCO, another official who is an engineer in the production department, argued that there is little or no such learning at all, because 'the engine comes complete like a closed box; we do not know what is contained inside'. This is the same official who had hinted on the practice of meeting ANAMMCO's R & D requirements from laboratories located in Germany rather than in ANAMMCO itself. In spite of his reservations, the official was still optimistic about the long run impact of the project on the technological development of Nigeria. He suggested that the little knowledge acquired along the assembly line may agitate inquisitiveness that may cause some of the Nigerian engineers to try to fabricate some of the parts used in the assembly. The main obstacle to this will be the difficulty in equipping a private laboratory. Two other officials of the company sounded the same note of optimism but on a different count. They argue that there is a large reservoir of artisans in the area in which the project is situated, who are very fast at learning and developing technical skills. It was people like these, they emphasized, who were mobilized and who helped to sustain the secessionist war in that part of the country even after the secessionists could no longer obtain military supplies from the outside world. If these observations and suggestions are correct, then there is a valid reason to expect that there may be technological learning opportunities for Nigeria in ANAMMCO after all. First, there are Nigerian engineers in all the departments of the technical division as the table below shows. These are the people whose inquisitiveness may lead them to try their hands at manufacturing component parts. Secondly, there are many artisans from the surrounding areas who are already employed in the intermediate and junior category, also in all the departments of the technical division. 42 and 493 artisans respectively are so employed. These people, fast at learning technical skills as contended above, will soon be able to develop skills relevant to automobile manufacture, and should be in a position, therefore, to make modest contribution to Nigeria's quest to acquire auto-technology. To sum up the discussion so far, it may be concluded that the contribution of ANAMMCO to the technological development of Nigeria will take place more through technological diffusion than technology transfer. The

management's lack of enthusiasm in implementing the portion of the agreement which will bring Nigerians into responsible positions, coupled with the practice of taking the company's R & D abroad should suggest strongly that DBAG is not too willing to 'purposively move' its technology to ANAMMCO in what would have constituted technology transfer.

TABLE 5.1

Engineers in the Technical Division of ANAMMCO

DEPARTMENT	E n g i n e e r s		TOTAL
	Nigerians	Non-Nigerians	
Production/assembly	2	6	8
Production Eng/Control	10	3	13
Quality Control	1	2	3
Maintenance	4	2	6
TOTAL	17	13	30

Source: ANAMMCO, Enugu, 1982.

The other assembly plants share in many respects ANAMMCO's characteristics. In all of them, the technical partners own 40% of the venture, while the Federal Government owns 35%; leaving the remaining 25% to State Governments and private Nigerian investors. In all of them also management is effectively in the hands of the technical partners as they head the more important and technically oriented divisions where decisions that could affect the contribution of the projects to Nigeria's technological development are made. We find also Nigerian engineers working in what corresponds to ANAMMCO's technical division in all the plants, and Nigerian artisans employed as well in the intermediate and junior positions in the same division. Again for all of them the engine of the vehicle comes in the finished form only to be married to the auto frame. Finally, none of them undertakes any local R & D. All these mean again that only technological diffusion and not technology transfer is possible in each case, and to a

lesser degree than in ANAMMCO for that matter. The reason for this is that the argument about an existing pool of technologically inclined artisans on which technological diffusion in ANAMMCO depends heavily is not valid for any of these other plants. In their own cases, therefore, only the curiosity agitated by the engineers' contact with the assembly line may lead to any form of technological diffusion barring the obstacle of owning an equipped private laboratory.

2. The Iron and Steel Projects

The iron and steel projects are made up of two integrated steel complexes and three steel rolling mills. The largest of the projects is the Ajaokuta Steel Plant. This was still under construction during this research and is yet to be completed. The second complex, the Delta Steel Plant was in full production. Of the steel rolling mills, two had gone into production and the third was just about to be completed, and at the time of writing had gone into production.

In terms of clarity of policy goals and objectives the iron and steel projects are perhaps superior to the vehicle assembly projects. This may be due to the existence of a separate body charged with responsibility for making and implementing policies for steel development in the country. As early as 1967 when the idea of an iron and steel industry for Nigeria was still in its infancy, the Nigerian Steel Development Authority was created. This was substituted in 1979 with the National Steel Council. The latter lasted barely six months before the civilian administration, which took office in October of the same year, decided to create a Ministry of Steel Development headed by a minister of cabinet rank. These series of actions are a demonstration of the belief by the Nigerian policymakers that the technological development of the country depends greatly on the successful implementation of the iron and steel projects. On his visit to the site of the main project, the Ajaokuta Steel Plant, on February 18th, 1980, the Nigerian President said:

I need not emphasize the importance of steel to the technological take-off of any nation, because steel is an indispensable tool for economic self-reliance and an essential parameter for gauging economic growth.no nation has ever attained industrial take-off without acquiring steel technology... . It is therefore

obvious that Nigeria will not achieve economic self-reliance and make necessary impact in the world without properly developed and integrated iron and steel industry.

This serious commitment to the steel projects at the highest level and the continuous existence of a machinery for making steel policy since 1967 may have aided the clarity in the policy on steel technology. The clear perspective of the Ministry of Steel regarding the development of steel technology in Nigeria should owe a lot to the foundations which its steel policymaking predecessors have laid. The highlights of that policy is presented briefly below.

The Ministry's approach to the acquisition of steel technology reflects Spencer's view (1970) of technology transfer as a 'purposive movement of established technology'. Technology is seen as a marketable commodity which is exchanged for money and as the Ministry argues, this is only the manner in which technology owners are prepared to give it out.

It is only on a cash and carry basis that technology transfer makes sense. It is only on this cash and carry basis that the owners of the know-how are prepared to open up, and be free to show you what you need to know.

(Ministry of Steel Development : Afriscope vol.12, no.2, February 1982, xxix).

Technology commerce in the above manner has two dimensions: the purchase of the physical technology and the purchase of the know-how. Technical assistance may also be purchased along with these where it is needed. The iron and steel projects in Nigeria involve all three.

The above account presents the Ministry's approach to technology transfer, both as a concept and a programme for technological development. The effective realization of that programme depends on the manner in which the steel projects are executed. What is therefore attempted below is to show the extent to which the execution of the projects is guided by the Ministry's conception of technology transfer. One point should be observed about that conception for a start, however. If technology transfer is a commercial product to be bought and paid for in cash, it is a product, like a wedding suit, for a specific occasion. It must, therefore, arrive in time for the occasion to be very useful. In the steel project for example the technology for the construction stage must arrive when the construction work is going on. This should be the case in all the other stages and their relevant technology. Hence one thing to look for in the story told below

about the execution of the steel projects is whether the purchased technology arrived in time for their relevant occasions.

(a) The Ajaokuta Steel Plant

The Ajaokuta steel complex is designed to produce steel billets from iron ore, in addition it has four big rolling mills and is, therefore, capable of rolling all its steel billets into various steel products. The complex will assemble a total of 8,900 technical staff when fully operational. The figure includes 1,146 engineers. The Plant, which has also been constituted into a limited liability company, the Ajaokuta Steel Company Ltd., has already embarked on its training programme. A total of 1,795 technical staff are to be trained in the USSR, the country handling the construction and engineering aspects of the project. Already 172 have been trained and 234 are undergoing training. Another 636 engineers and technicians are to train in India between 1982 and 1985. Already more than 180 have been trained there. 23 others were trained in various Western countries and a local university has mounted a post-graduate course in metallurgy, and this has turned out 31 personnel so far. Trainees are also being sent to the USSR to receive an induction training in steel construction. The training, lasting between 2 to 3 months, had produced 418 participants by September 1982. A metallurgical training complex designed by the techno-export of the USSR was to open at the site in December 1982. Its aim is to train 700 craftsmen and 600 technicians annually. It is also to run induction courses for new engineering and technical recruits. The original intention was for the complex to open two years before the construction work commenced so as to supply technicians to participate in the exercise. This plan did not materialize because, according to the Training Manager of the company, the government thought the plan was too ambitious when it was first presented to it. It took a lot of pressures and persuasion before it was sanctioned. In the meantime that valuable opportunity of turning out technicians and craftsmen to participate in the construction phase was lost. A training school opened in 1978 as an interim measure had only trained 241 technicians and craftsmen by 1982, a number far below the scheme envisaged in the training complex. By September 1982 also, the number of Nigerian engineers and technicians assembled through direct appointment and training was only 570. If this figure is set against the 8,900

envisaged for the two categories of workers at the full operation of the plant or against the 22,000 men expected to participate in the erection and civil works when the project nears its peak in 1983, it will be a very poor result.

(b) The Alaja Steel Plant

The Alaja Steel Plant, otherwise known as The Delta Steel Company Limited, started production in November 1981 and was officially commissioned in January, 1982. Compared with Ajaokuta, the Delta Plant is a much smaller project. Like Ajaokuta, however, it too is a complex processing raw iron into steel billets, and has a rolling mill for turning some of this into steel products; but its iron processing and steel-making capacity is much smaller than the first complex. For example, its only rolling mill is smaller than the smallest of the four mills in Ajaokuta and can only roll between 20 to 30% of its billets. The smaller size of the project also limits its manpower demands. During its construction period it employed 700 expatriates and 8,000 Nigerians in various tasks. Its normal operation, however, requires only 6,000 employees out of which 4,500 will be in the production and technical functions. Although that figure is not attained yet, the pace at which the personnel of those two divisions has grown is very rapid. Starting with only 2,963 in 1981, the figure had reached 3,706 by April 1st, 1982 and by June of the same year it had increased further by another 252, bringing the total to 3,958 personnel. This rapid growth in the technical personnel of the company is due to a vigorous training effort. In 1980 the training of technicians and craftsmen had already begun and by the end of 1981 a total of 800 trainees had been turned out. Another 550 were trained through instruction and attachments with steel plants in Europe and a technical assistance contract with an overseas firm brought in 120 experienced European steel-makers. The contract covers a period of three years, and is to be gradually phased out during which time the European personnel are expected to have imparted steel-making expertise on the Nigerians working with them.

(c) The Steel Rolling Mills

We have referred before to the existence of three rolling mills among the iron and steel projects. They are situated in three locations in the country: Jos, Katsina and Oshogbo. The three rolling mills are once more much smaller than those of Ajaokuta. Put together they are just about a quarter of the rolling mill unit of the Ajaokuta complex. The Jos and Katsina mills had been fully erected and were just about to go into production when they were visited for this research. The Oshogbo mill was, on the other hand, months away from completion. It did not also yield any data on the construction and manpower development programme of the project as the officials concerned with these matters were not accessible when it was visited. Only the Jos and Katsina mills are, therefore, reported here.

(c1) The Jos Rolling Mill

The mill was constructed by a consortium of three German firms. Its personnel capacity is 1,500. A training contract was signed with the Germans to train 130 Nigerian engineers - 55 to be trained overseas and 75 to be trained locally. This training programme, however, commenced long after the construction work on the plant had begun. Accordingly, 90% of the work had been completed before trainees began to arrive, and it was only at that late stage that the 44 Nigerian engineers who had completed their training participated. The plant has a training centre of its own for training technicians and artisans, especially rollers. Training started at the centre in October 1981 and at the time the mill was visited 34 artisans and technicians had graduated; 49 were in training. Finally, the major contract agreement stipulated that the contractors should man the mill for three years after it has commenced production, during which time they are to prepare Nigerians to take it over.

(c2) The Katsina Rolling Mill

The Katsina steel project was handled by a Japanese firm, the KOBE Steel Ltd. Construction started in April 1981 and had been completed by September 1982. It employs about the same number of people as the Jos mill. The contract agreement follows the same pattern as the Jos project also. Thus, apart from the main contract, there were also contracts for staff training and the initial management of the mill after it has been commissioned. The training programme includes overseas training of engineers

and technicians. There is also an arrangement for the local training of artisans and technicians at the training centre to be built. In the meantime a temporary centre was organized and 76 people had already completed their training there. From the overseas programme 41 technicians and 9 engineers had been trained; another 31 and 9 trainees were about to leave for technical and engineering training respectively. Arrangements for the take-off of the local training centre had reached advanced stage. Seven Nigerian instructors trained in Japan had returned for this purpose. In the construction work itself, scarcely any Nigerian engineers were involved. As the Personnel Manager of the company argued, 'the Japanese have chosen to rely solely on their manpower in the construction work' (interview: 17/9/83). KOBE is to run the mill for two years before handing it over to the Katsina Rolling Mills Company Limited. During this time, as in the other cases, technology in all aspects of steel rolling is expected to be transferred to Nigerians. To effect this part of the agreement KOBE had deployed nine engineers to head the various technical departments for the two-year period. Nigerian engineers will be understudying the Japanese in the operation of the mill, and are expected to have acquired the rolling technology before the agreement runs out. The nine Nigerian returnees from overseas training mentioned above, have already taken positions in the mill for the understudy purpose.

The above account confirms the suggestion made at the beginning of this section, that technology transfer has been pursued more vigorously and systematically in the iron and steel projects than it has been in the vehicle assembly industries. It has been shown that the Ministry of Steel Development has a graphic conception of what should be involved in technology transfer. The latter, it must be remembered, was presented as a commercial transaction in which the owners of technology are only prepared to exchange it for cash. The account rendered in the preceding paragraphs shows that this idea of technology commerce has featured in its details in the execution of each project discussed. Hence we see in each case the purchase of physical technology, the purchase of know-how, and the purchase of technical assistance. There has, however, been instances of slacks in the logistics of technology transfer as a commercial transaction. In Jos, it should be recalled, 90% of the construction work had been completed before any trainees arrived to participate in that stage of the project, and in Katsina it was stated that the Japanese even chose to rely entirely on their

manpower for the construction work. For the Ajaokuta project, it was also shown that only a handful of Nigerians were participating in the construction work. This compares very unfavourably with the vast number of people engaged in that construction and the vastness of the technology involved in this gigantic project. In this case it is doubtful that any meaningful transfer of the technology contained in that stage of the project can take place. Only in Alaja has the logistics of the technology commerce been successful in delivering the purchased technology promptly for the stages for which they were bought. On the whole, therefore, the Ministry's brilliant conception of technology transfer did not confer its full potential advantage on the steel projects because of defects in the mechanics of the concept. One source of this defect is to be found in the Ministry's approach to implementation. It devolved responsibility for project execution to the personnel of the individual projects and had done little to monitor or oversee performance to ensure that it reflects its conception of technology commerce or that purchased items of technology arrive promptly for their specific purpose. Yet another defect may have resulted from 'the structural position of basic weakness' emphasized by Vaitzos (1976). It can be argued that the Nigerian public servants who negotiated these projects with their respective technical partners did not have 'knowledge about knowledge' (Vaitzos :1976) which would have enabled them to foresee the implementation problems inherent in their concept of technology commerce, and to devise a programme of action to counteract them beforehand.

Conclusion

So far each discussion has ended with the major conclusion arising from it. In this section only the broad implications of these conclusions are discussed and stressed.

It was observed at the beginning of this chapter that the importance of a technology strategy and its incorporation into the industrialization policy of Nigeria took place only in 1970, a decade after the country had proclaimed, and embarked on, a policy of rapid industrialization. Once recognized, however, a concerted effort was made to provide the institutional machineries necessary for making and implementing technology policies. This effort has yielded good results in aiding the development of a clear

perspective of the issues and problems involved in technology development and of how to go about them. It was contended above that in terms of formulation Nigeria's technology policy would pass any test in which the measuring rod was clarity and comprehensiveness.¹ It is argued here that the account given of the policy goals and objectives of the main bodies involved in technology development, such as the NCST, the Ministry of Science and Technology, and the Ministry of Steel Development validates this contention. It is in implementation that the technology policy has been wanting as, again, has been observed already. To start with the emphatic statement regarding the development of the indigenous sources of technology has not been thoroughly implemented. The problem here is on the one hand that of misplaced emphasis, and on the other, of the politics of policymaking. There is cause to believe that the policymakers have not been enthusiastic about exploring discoveries made by individual efforts; no evidence, for example, can be produced to show the specific action of encouragement given by the government to any of the individual technological innovations described above. Instead, as the data presented show, the government has tended to focus attention on its own research institutes to which it has also committed enormous resources. Yet the technological achievements of the institutes have not justified this huge inflow of resources; their technological achievements appear in fact to be far less spectacular than any of those recorded in the individual efforts. It is argued, therefore, that the failure to give active encouragement to individual innovations and inventions constitutes another instance of implementation failures in Nigeria's industrialization policy. Further, it provides an example of cases in which the attitudes and actions of those in charge of implementation may contradict or negate the formulated objective of policy.²

-
1. It must be stated here that this observation is only valid in a relative sense. It was stated above (p.165) that Nigeria's technology policies have not attained the 'clarity and strategic definitiveness' attained by those of the Russian and Japanese examples discussed earlier. However in terms of policy clarity in its own right, or the prevailing examples of the technology policies of other developing countries, such as Brazil, Mexico and India, which were also referred to earlier, the observation regarding the clarity and comprehensiveness of Nigeria's technology policies will be valid.
 2. It may be suggested then that the huge inflow of resources going into government research establishments will yield a higher aggregate result in enhancing Nigeria's technological capability if a slice of the said resources is set aside to encourage and harness technological innovations made outside government sponsored institutions.

The underlying cause of the situation in the present case, is to be found in the politics of policymaking as it operated in making and implementing technology policy in Nigeria. The argument is that technology policymaking in the country is firmly in the hands of 'professional engineers' known as such more for their university degrees than anything else. These people, it may be suggested, will be letting down their profession if they actively encourage technological innovations and inventions made by 'non-professionals'.¹ Thus the solar car and the barber's aeroplane are ignored for this purpose.

Another instance of implementation failure has been concerned with technology transfer but the problem here has not been due to the failure of policymakers to take appropriate action, rather it has been due largely to the behaviour of the MNCs operating in the country. The contention made here is that the MNCs operating in Nigeria have retarded the country's pace of technological development by their failure to undertake local R & D or interact with local research institutes.

1. Quotes are meant to recall the views expressed earlier that Nigerian engineers, in spite of their university degrees, lack the ability to apply scientific theories to the creation of physical products. These views argue that the makers of the solar car and the aeroplane are the real engineers.

CHAPTER SIXTHE MANPOWER STRATEGYINTRODUCTION

The manpower strategy has been the least contentious of the three strategies discussed in this thesis. It has been less directly affected by ideological disputes and the actions of the multinational corporations. Also it has not suffered from the politics of policymaking of the nature found in the technology strategy. All these factors, it will be argued, have combined to make achievement of policy objectives more modest for the strategy as the choice-decisions made, which again have been left to the technocrats, have been more within the control of the policymakers. In spite of these observations there are still vital questions raised by some aspects of the strategy which will have to be answered. Firstly, what is the underlying motive for the emphasis placed on formal education in the formulation and implementation of this strategy? Apart from statements regarding the provision of education as a fundamental obligation of government, there is also an explicit policy statement on the need to gear the educational system to supplying the manpower requirements of the industrial sector. The question arises again as to whether these statements and the policy based on them value education for its intrinsic and functional attributes or whether it is seen merely as a means of broadening and strengthening the elite segment of the society. An issue such as this is difficult to research directly for no policymaker will openly admit that his policy has a motive which will be seen as sinister both in political discussion and in practical politics. However, the case made in the last chapter about the false emphasis placed on formal education as exemplified by the training of engineers is valid for the whole educational system in Nigeria. Accordingly, educational attainment at all levels is an elite symbol which confers more power and recognition as the level of attainment increases or as it applies to particular professions such as engineering and medicine.

Secondly, why has the private sector as a whole, including the multinationals not been made to take more responsibility in financing education, especially technical and other industry- and business- relevant education. This only highlights the argument made in Chapter Four, that mixed economy enables the Nigerian business elites to pass on a substantial and unmerited cost of their business activities to the government and therefore to make easy

profits. This point will be emphasized again in the concluding chapter.

Thirdly, how has the manpower strategy been affected by the absence of accurate census data, which itself is the result of the politicization of population census in Nigeria? A brief account of the history of population census since 1960 will throw light on this, and will enable us to state precisely the way in which it is relevant to this discussion.

Post-independence census counts in Nigeria have all been full of accusations and counter-accusations among political parties (during the first Republic) and geographical areas of inflation of the figures in order to increase shares in central resource allocations and political offices (such as seats in the Federal legislature or appointment to political offices). These accusations were proved at least for the 1962 census (the first after independence) results which were, therefore, cancelled. The substitute census of 1963 was no less contentious except that the Nigerian authorities were determined to have a census figure at that point. One of the political parties, the NCNC (which was the party in government in the Eastern Region of the Nigerian Federation), did in fact take the Federal Government to court for accepting the result of that census, but lost its case. Since 1963 it has not been possible to hold another population count successfully. The military government of Gowon conducted one in 1973, but never declared its results because of widespread accusation of the figures having been inflated by the States in order to attract more than their due share of federal benefits. There was such a strong disenchantment with population counts then, that one of the early public statements of the Murtala regime after it had overthrown Gowon concerned the intention of the government not to consider a census count within the four years it had set for itself for a return of power to the civilians. Instead, as the statement had it, the government was to rely on expert projection of the 1963 census figures for all of its population data requirements, and this as will be seen has been the main source of the data used for manpower planning since 1977 when the last comprehensive manpower survey was made. What then are the implications of these for the manpower strategy? There are two.

Firstly, the rationalistic attributes of this strategy is weak compared with the other two strategies because its basic input information (population figures) are defective. Secondly, whatever inaccuracies result from inaccurate

population data are likely to be compounded through incremental planning (which the manpower strategy shares again with the others) and this makes manpower projections difficult. This may explain then why, as will be observed in the concluding part of this chapter, manpower projections have not been carried far enough, yet, as will be argued, a fairly long range projection is necessary if Nigeria is not to end up with an oversupply in its manpower requirements as a result of the strategy pursued in this matter. Looking now to the other models, it will be found that institutional approaches to policy implementation is stronger here than the other strategies - this will be emphasized. Finally, the first two questions addressed at the beginning of this discussion attest once more to the elitist nature of policy-making in Nigeria. It is hoped that the presentation which follows in the rest of this chapter will clarify further the issues raised in these introductory remarks.

MANPOWER PLANNING

Industrialization policy in Nigeria, it has been argued already, favours a planned approach. The way in which planning has been brought into the investment and technology strategies in that policy has been illustrated in the last two chapters. It will be shown presently that the same approach applies also to the manpower strategy. The discussion which follows argues in fact that planning has featured more in the manpower strategy than the two strategies already discussed, especially the technology strategy. The central theme of this chapter, therefore, is manpower planning. Its main task is to demonstrate how within the framework of planning the manpower needs of the Nigerian economy generally and the industrial sector in particular have been established and met. Attempts will be made throughout the discussion to highlight the special problems posed by the development and deployment of industrial manpower.

Manpower planning has become a subject in its own right, with a fairly well developed technique. It is important, therefore, to state at this early stage that we are not primarily concerned with the techniques of manpower planning. What is being explored here is the way in which manpower planning has been conceived and used in Nigeria's industrialization policy. Narrowing down our concern as such brings the subject into terrain more familiar to the student of public administration, for all planning is concerned with the forward projection of current and future needs and the formulation and execution of a programme of action to satisfy those needs. Within this general perspective, we may define manpower planning as the forward projection of the current and future manpower needs of an economy and the design of action to supply those needs. Writers on the subject of manpower planning have, on the other hand, adopted a more specialized approach to defining the subject. They have tended to take an economic view and to define their subject matter in terms of demand and supply (Smith : 1971, Bartholomew et al. : 1976). For these writers manpower planning is seen as an attempt to strike a balance between manpower demand and manpower supply.¹ This approach is very useful in

1. All the 15 contributors to the volume, Manpower Problems and Economic Development in Nigeria, edited by T.M. Yesufu (1969) define manpower planning as such. This is also true of the contributors to Harbison and Myer (eds.), Manpower and Education (1965).

perceiving the manpower situation in countries like Nigeria where there is a dire shortage of this commodity. It should make it easy for planners here to work out more precisely the extent of the shortage generally, and how this is distributed among different sectors of the economy. In the presentation that follows we shall see how the manpower planners in Nigeria have been able to do just that; that is establish as precisely as possible the manpower demand of the economy generally and sectorally. Once this is done, the solution to the supply problem is facilitated as planners are then able to know where to focus more attention and the trade-offs that may be necessary in order to strike the demand and supply balance *pari passu* with the priority ranking within the sectoral aggregates of the economy. Once again the Nigerian planners have something to learn from here for the industrial sector which ranks very high in the development priorities of the nation faces a more acute shortage of manpower supply than the economy generally. This means that manpower planners there may have to engage in trade-offs in order to accelerate the pace of the development of industrial manpower. We shall be on the look-out for any evidence of such trade-offs in the ensuing discussions.

The rest of this chapter is organized as follows. It starts with a review of the history of the main machinery for manpower planning in Nigeria, The National Manpower Board. This is followed with the presentation of the activities of the Board regarding the determination of the manpower demand of the economy. The highlights of the supply problem are also discussed at the end of this section. From here we move to reports on the programmes and institutions which have been used to supply the needed manpower. These reports are largely descriptive. Finally, the chapter concludes with an overview of the manpower strategy as a whole. The object here will be to relate achievements in the manpower development efforts to stated goals. Issues either in the formulation or implementation of the strategy which may have affected performance are isolated and analysed.

The Machinery for Manpower Planning in Nigeria

The specific task to be achieved in this section is to trace the evolution of the National Manpower Board (the machinery primarily responsible for manpower planning in Nigeria) as a basis for understanding its linkages with the other agencies involved in manpower development in the country and how such linkages have facilitated or hindered its achievements. This should also necessitate an examination of its functions and powers as these in turn affect the said linkages.

The National Manpower Board, as we said, is the machinery which is primarily responsible for manpower planning in Nigeria. It was first established in 1960 following the recommendation of a commission (The Ashby Commission) in 1959. This Commission, whose main task was to explore Nigeria's needs in the field of post-secondary education, saw the need for the establishment of a national manpower board, 'for reviewing on a continuous basis the country's manpower needs', and recommended same. The Board, according to the Commission, should be empowered to formulate programmes for the development and utilization of manpower throughout Nigeria. With the acceptance of this recommendation, the Federal Government established the National Manpower Board with the following terms of reference (published as Sessional Paper No. 3 of 1961):

The determination of the nation's manpower needs in all occupations; formulating for consideration of the National Economic Council and the Governments of the Federation, programmes for manpower development through university expansion and training, scholarships, fellowships and other facilities; and co-ordinating the policies and activities of the Federal and Regional Ministries primarily concerned with manpower problems. The Board will also be concerned with employment policies including measures to deal with unemployment and the optimum utilisation of the nation's manpower resources.

The above terms of reference, to say the least, are too broad, and this, as will be seen below, contributed to the Board's failure and eventual collapse. Membership of the Board also presented problems. This is discussed later. It had included two Federal Ministries (Education and Economic Planning); all Regional Ministries with responsibility for planning; a representative of each of the country's existing universities at that time; and a representative each of employers and trade unions. In the regions themselves were established Manpower Planning Committees to perform functions parallel with those of the National Manpower Board in their respective regions.

The National Manpower Board went into operation in 1962 but soon started to be plagued by defects in the law which established it. The most fundamental of these defects is that the Board's membership excluded some ministries and other organizations which are either directly involved in manpower development or whose activities indirectly affect it. The most prominent examples here are the Federal Ministry of Labour, the Industrial Training Fund, and the Administrative Staff College of Nigeria. Another defect which is equally important is the absence of any statement in the law regarding the functional

relationship between the Board and the other agencies concerned with manpower development. There was nothing about the methods and procedure by which the Board should get its policies and programmes to these agencies and about how to monitor their implementation. The problematic nature of this omission is more obvious in the co-ordinating function of the Board. What for example should it do where the manpower policies of an agency are inco-ordinable because they contradict either with those of other agencies or even the policies of the Board itself. How also is the Board to co-ordinate the policies of the manpower development agencies like the Industrial Training Fund, which had no links at all with it. On a more general note it may be observed that the Board's terms of reference ought to have been a little more specific. Instead as we have seen they are broad and vague. Faced with problems as crucial as these, the Board not only became ineffective but ceased to function totally in May 1971 after it managed to hold its 13th meeting. Its demise did not in any case remove the need for such a body nor did it make its potential importance less obvious to the government. One understands then why in 1976 the Board was reactivated and reconstituted with care to avoid the pitfalls which had crippled it in the first attempt. Two things happened in this respect. The reconstituted Board included all the agencies which are directly and indirectly concerned with manpower development. They are the Federal Ministries of Labour, Education, Defence and Internal Affairs; the Administrative Staff College of Nigeria; the National Population Bureau; the National Board for Technical Education; the National Universities Commission; representatives of employers and trade unions; and the Industrial Training Fund. This broad representation on the Board of all those concerned with manpower development will among others make its co-ordinating function easier. It should mean as well that those who may be called upon to implement the policies of the Board will have participated in making those policies and are more likely to do that job with enthusiasm.

Secondly, even though the terms of reference of the defunct Board were the same for the new Board, the latter was quick to reformulate them into specified tasks according to how it perceives its functions and to organize itself around these tasks. Broadly, therefore, the Board perceived its functions as:

First, Manpower Planning : The specific tasks to be achieved here are, taking stock of the nation's manpower resources, forecasting manpower needs in the context of overall national development and formulating manpower policies and programmes in the light of the identified manpower needs.

Second, the Co-Ordination of Manpower Policies and Programmes : This involves overseeing the policies and programmes of other agencies to ensure their compatibility with one another on the one hand, and with the policies and programmes of the Board on the other. To achieve this purpose the major statutory bodies whose activities directly affect manpower development (including those already represented on the Board by law) were brought into the Board's secretariat. The bodies so co-opted were the Industrial Training Fund, the Centre for Management Development, the National Board on Technical Education, and the committee of the Federal Ministry of Internal Affairs (Business Advisory Committee) responsible for expatriate quota allocation; some of these are among the institutions on which detailed reports are given in the next section. Still in the attempt to make its tasks more specific the Board identified a number of distinct activities and established committees to take charge of them. Three committees were accordingly established to take charge of:

1. manpower research and planning;
2. manpower development policies and programme co-ordination;
3. manpower utilization policies and programme co-ordination.

The account given above reveals that the reconstituted manpower board has a clear understanding of its tasks and that it has a systematic approach to them. This should be of great help to the body in its major assignment of narrowing the gap between manpower demand and supply if not exactly balancing the two. Whether this has actually been the case or not can only be demonstrated after we have discussed the activities of the Board. This is the subject of the next section. It examines the procedure by which the Board establishes the manpower demand of the Nigerian economy; this is prefaced with a consideration of the parameters which enter into the calculation. It also discusses in its concluding part, the highlights on the activities of the educational and other training institutions involved in manpower development which is undertaken in the next section but one.

Essential Elements in Manpower Planning

Manpower planning deals with the labour force; hence the central concerns of that activity are the size of the population, particularly the working population, the size of the labour market, the size and pattern of gainful occupation and the wage and non-wage employment. A consideration of these should provide the context within which the more specific subject of the

industrial manpower may be discussed. They are, therefore, considered briefly below as they apply to Nigeria, for this purpose.

Nigeria's population was put at about 60m in 1963 when the last census was held in the country. As no other census has been held since, planners have relied on expert projections to determine the size of the population and the size of the labour force thereof. In this manner it was estimated that the labour force rose from 26.08m to 29.22m between 1970 and 1975;¹ that is, from the beginning of the Second Plan to the beginning of the Third (3rd Plan : 369). The Fourth Plan's estimates put the labour force at 32.2m in 1980 and expect it to rise to 36.05m in 1985. Each plan has also calculated the size of the labour force in gainful occupation and this has been over 90% from the 2nd through to the 4th Plan periods. The corresponding figure for the population as a whole is much lower: only between 40 to 41% has been in gainful occupation in this case. Manufacturing has experienced a consistent increase in its share of the sectoral distribution of total gainful occupation. From 12.2% in 1970 when it ranked third following behind agriculture and commerce, it rose to 17% in 1980 displacing commerce from the second position, Table 1. The 4th Plan estimates that manufacturing will account for 27.6% of additional employment envisaged between 1980 and 1985. This share again is second only to that of agriculture which will be 40%.

TABLE 6.1
Sectoral Distribution of Total Gainful
Occupation in Percentages, 1970-1980

Sector	1970	1974	1975	1980
Agriculture	69.8	65.5	64.0	60.0
Mining and Quarrying	0.2	0.3	0.4	0.4
Manufacturing, Processing & Craft	12.2	16.6	16.8	17.0
Building and Construction	0.6	0.6	0.9	1.1
Transport and Communications	12.6	12.2	0.6	0.6
Commerce and Distribution	0.7	0.7	12.2	15.2
Services	3.9	4.1	5.0	5.6
Others	-	-	0.1	0.2
Total	100.0	100.0	100.0	100.0

Sources : 2nd, 3rd and 4th National Development Plans.

1. In 1966 the figure was 23.81.

TABLE 6.2
Wage Employment as a Proportion of
Gainful Occupation, 1970-80

Year	Gainful Occupation (mn.)	Wage Employment (mn.)	Percentage
1970	24.05	1.39	5.3
1974	27.32	1.79	6.2
1975	27.91	2.18	7.8
1980	30.80	3.00	9.7

Sources : As in Table 6.1

TABLE 6.3
Distribution of Wage Employment Among Major
Economic Activities in Percentages 1970-80

Economic Activity	1970	1974	1975	1980
Agricultural	12.3	10.6	9.5	8.7
Non-agricultural	87.7	89.4	90.5	91.3
Manufacturing ¹	35.4	43.0	42.3	38.8

Sources : As in Tables 6.1 and 6.2

1. The figures for manufacturing in the above table are calculated by expressing the share of manufacturing in Table 6.1 as a percentage of non-agricultural gainful occupation and then expressing the result as a percentage of non-agricultural wage employment shown in Table 6.3.

We may also analyse Nigeria's labour force according to the size engaged in wage employment. In 1966-67 there were 1.2m people so engaged; about 5% of total gainful employment. In 1975 and 1980 this figure respectively rose to 2.18m and 2.76m representing in turn 7.8% and 8.7% of total gainful occupation (Table 6.2). It is clear from the table that wage employment still absorbs only a very small proportion of Nigeria's labour force. Even by 1985 when total wage employment is expected to rise to 3.75m it will still account for only 10.8% of the labour market. The sectoral distribution of wage employment displays a different pattern from those of gainful occupation. First non-agricultural occupations account for a much greater proportion of wage employment here and then manufacturing is the leading sector in the configuration. Between 1970 and 1980 non-agricultural wage employment account on the average for almost 90% of total wage labour, with manufacturing alone absorbing half of that figure (44.4), Table 6.3. The bulk of these were employed in medium and large-sized establishments defined by the Nigerian planners as establishments employing more than nine persons and it is employment in these establishments that has been the focus of manpower planning in the country.

The preceding discussion provides the relevant information about the background against which the Nigerian planners determine the manpower demand and supply. It also brings into focus the issues considered in the attempt to balance the two especially as they relate to the different sectors of the economy and should aid our understanding of these issues when they are referred to in the discussion which follows.

The Manpower Situation in the Nigerian Economy¹

According to the National Manpower Board, (NMB) the demand for manpower may be taken 'as the total number of people employed and the shortfall in employment requirements expressed in existing vacancies which cannot be filled for lack of suitable employees'. Viewed as such, the demand for all categories of workers on 1st April, 1977, was 488,675. The figure represents the total number of established vacancies at that date. 387,765 places were filled leaving 100,910 unfilled vacancies. There was, therefore, a vacancy rate of 20.6%.² The situation of demand for the categories of manpower directly

-
1. The data analysed in this section are derived from the Study of Nigeria's Manpower Requirements, conducted by the National Manpower Board in 1977. The Board was still working on a new manpower survey when it was visited in August 1982, and could not say when this will be available.
 2. Defined as the ratio of unfilled vacancies to total established positions, (National Manpower Board, 1977).

involved in manufacturing is slightly different from this general picture (Table 6.4). First, the vacancy rate for these occupations is 21.2%. 301,155 out of 382,275 established positions were filled leaving 81,120 unfilled vacancies. The situation with regards to technical, scientific and professional manpower was, however, much more problematic. Here the vacancy rate was 41.7%. What is clear from the figures presented so far is that the demand for manufacturing manpower is higher than the general demand for all categories of manpower. Another dimension to this problem is public sector manpower requirements for its manufacturing projects. Each of the 2nd, 3rd, and 4th National Development Plans has contained a manpower budget and they have all recorded a high vacancy rate for technical, professional and scientific personnel. The great demand for these categories of personnel, in the public sector has been brought about by its increasing involvement in manufacturing activities, especially those of heavy engineering. The underlying cause of the high vacancy rate which has consistently characterized the public sector particularly in its manufacturing projects is to be found in the unfair competition which it faces with the private sector for the manpower commodity. This is more responsible than the general shortage of skilled labour. The exact situation is that the private sector being freer to offer more attractive remunerations and other benefits has exerted a stronger pull on the available manpower. There is, therefore, a flow of professional, scientific and technical skills; and in some cases, administrative and managerial expertise as well; from the public sector to private enterprises. This has meant that manpower planning must contend additionally with ensuring a fair competition between the two sectors for a share in the manpower categories concerned. A third dimension in the demand for manpower concerns the demand for expatriate and indigenous personnel.

TABLE 6.4
Demand for Manpower Directly Involved in
Manufacturing as at 1/4/77

Occupational Category	No. Employed	Vacancies	Established positions	Vacancy rate
Administrative and Managerial	95,709	31,306	127,015	24.6
Technical, Scientific and Professional	42,400	30,385	72,785	41.7
Artisans and Craftsmen	163,046	19,429	182,475	10.6
Total	301,155	81,120	382,275	21.2

At independence in 1960 more than 60% of the senior administrative, managerial, and technical personnel in the country were expatriates. Attempts to Nigerianize these positions did not move fast because of various problems, among them the lack of training facilities and recruits for training and limitation of finance. These problems did not permit the expansion of training institutions on a scale compatible with the shortage of indigenous personnel. In view of the circumstances just described, it was found at the close of the 60's when the 2nd National Plan was being drawn up that between 30 to 40% of senior category employment in Nigeria was still held by expatriates. The extent of Nigerianization increased a great deal in the 70's, hence the 1977 manpower survey (NMB :1977) found that only 5.9% of administrative and managerial manpower; 6.5% of technical, scientific and professional personnel and 0.1% of artisans and craftsmen were foreign nationals. Most of these, however, were in the manufacturing and construction industry where they were estimated at 20,000.

In discussing the demand for manpower above, we have also hinted that there is an excess of demand over supply as is evidenced in the high vacancy rate shown for selected categories of manpower in Table 6.4 and the other data provided. It was also demonstrated that the supply problem is more acute for the very categories of occupations that are most needed in the manufacturing industry. The remaining part of this section discusses more the highlights of the supply problem with particular reference to industrial manpower.

In searching for a solution to the manpower supply problem planners in Nigeria, and indeed the public policymaking machinery as a whole, have emphasized the importance of formal education and other training programmes as an answer to the predicament. They seem to accept the view that education 'is both the seed and the flower of economic development' (Harbison and Myers, 1965 : x-ix). The underlying argument to this suggestion is that education contributes to economic development, which in turn makes it possible and in fact necessary to invest further in educational development. We find, therefore, that various policy documents of the Nigerian public authorities contain some statements regarding the role of education and training in national development. Thus among the stated objectives of education policy in Nigeria are:

- (a) to create 'an adequate stock of skills needed in the process of social and economic development', with greater emphasis on technical education (2nd National Development Plan : 235, 238);

- (b) to 'make an impact in the area of technological education so as to meet the growing needs of the economy'. (3rd National Development Plan : 245);
- (c) to 'consolidate and develop the nation's system of higher education in response to the economy's manpower needs' (3rd National Development Plan : 245);
- (d) to 'raise the quality of education at all levels in order to make the products of our school system more useful to society' (4th National Development Plan : 257);
- (d) to enhance 'the acquisition of appropriate skills, abilities, and competence both mental and physical as equipment for the individual to live in and contribute to the development of his society (National Policy on Education : 1981, 8).

In spite of paper emphasis such as the above, and in spite of the massive programme of formal education and training discussed in the next section, there continues to be as we have seen, a gulf between the demand and supply of manpower especially in manufacturing industry. There are two main reasons for this. In the first place science and science-based disciplines cannot effectively¹ expand rapidly because of the insufficient number of qualified students available for admission into these disciplines. What we find in this case is that science, engineering and other science-based departments of the country's universities and polytechnics rarely account for a quarter of total students enrolment. In the 1979-80 academic year the percentage of total university enrolment taken up by natural science and engineering (including technology) was respectively only 14.4 and 6.9. In the polytechnics these disciplines provided only 21.8% of total student population.

1. This qualification is meant to portray the situation in which newly established universities open science departments with fully equipped laboratories that have to wait for years before they can be functional for lack of students and staff. The situation has not, however, been left unattended to. In order to improve the supply of students for their science departments, universities have had to run pre-degree courses for students with 'O' level in science subjects, who are then absorbed into the universities concerned after they have satisfied requirements for admission into degree courses. This has improved the situation a great deal and has contributed to the growth in university turn-out of graduates. This is a subject for the next section.

Secondly, while staffing is a problem generally for higher institutions it has been more troublesome for their science sections. The manpower survey referred to above found that 20% of staff shortages in the universities was in the science faculties. In the polytechnics it found that the vacancy rates for lecturers in engineering and sciences were 41.1% and 21.3% respectively. These figures are out of proportion with the share of the faculties and disciplines concerned in the number of students enrolled in the institutions in question. Even at secondary school level mathematics, physics and chemistry teachers are usually in scant supplies.

The facts revealed in the last two passages provides a fore-knowledge of the kind of problems faced by the programmes for the supply of manpower on which a report is now given. The report is preceded with a general discussion of the manpower development efforts and how this has reflected the emphasis placed by the Nigerian policymakers (discussed already) on the need to quicken the pace of industrialization in the area of heavy engineering.

PROGRAMMES AND INSTITUTIONS FOR THE DEVELOPMENT OF MANPOWER : A General Overview

The quest to meet the manpower needs of the Nigerian economy has led to a very rapid growth in the educational institutions at all levels; this is especially the case with higher level education. Starting with only one university at independence in 1960, the number had risen to six in 1970 and by 1982 there were twenty-five. The same has been true of intermediate educational institutions. There is at least one polytechnic in each of the 19 states of the country, with many of them having two: one owned by the Federal Government and the other by the State Government. Increasingly these institutions are being geared to cope with the greater shortages in the supply of technical manpower. Thus apart from expanding the science and engineering faculties of the older universities, full-fledged universities of technology have been established. Nine of the twenty-five universities are of this type: seven are owned by the Federal Government while the rest belong to State Governments. All these home-based manpower development efforts are supplemented by overseas training, particularly in disciplines where the Nigerian institutions are not sufficiently equipped to handle; hence many students are sponsored to study abroad each year either directly by the government or its agencies.¹ On the home front again efforts in manpower development have

1. Government departments, para-statal, public companies, the universities and other institutions of higher learning all have programmes of overseas training for their personnel.

not been left entirely to formal education. It has been coupled with training through informal institutions. Among those established for this purpose in their order of importance are the Centre for Management Development (CMD), the Industrial Training Fund (ITF), and the Administrative Staff College of Nigeria (ASCON). In addition training has informally been given through in-plant and on-the-job learning arrangements. They have been mostly used in the industrial sector. In 1969 there were 7,400 employees trained through the above methods. Today they have even become more important as a source of technology transfer to Nigerian personnel. This was demonstrated in the last chapter for government joint-venture engineering projects.

Another important area in the manpower development effort, which it will be appropriate to explore here, is ensuring that the manpower needs of the economy determine the courses offered in the educational and training institutions in the country. A two-pronged action has been initiated to achieve this purpose. On the one hand greater consultation and dialogue has been encouraged between the universities, private employers and the government. The consultation and dialogue take place within the Academic Planning Committee created within the National Universities Commission (NUC) on which the three bodies are represented. Its task is to influence the course content in the professions taught in the universities in the direction of national requirements. On the other hand, the importance of technical skills to Nigeria's economic development has been emphasized to the educational and training institutions in an education policy which defines technical education and spells out its aims and objectives (Revised National Policy on Education 1981 : 28-31). Technical education according to this document is 'that aspect of education which leads to the acquisition of practical and applied skills as well as basic science knowledge' (p.28). Its aims are to:

- (a) provide trained manpower in applied science, technology and commerce particularly at sub-professional grades;
- (b) provide the technical knowledge and vocational skills necessary for agriculture, industry, commerce and economic development;
- (c) provide people who can apply scientific knowledge to the improvement and solution of environmental problems...;
- (d) give an introduction to professional studies in engineering and other technologies;

- (e) give training and impart the necessary skills leading to the production of craftsmen, technicians, and other personnel who will be enterprising and self-reliant; and
- (f) enable our young men and women to have an intelligent understanding of the increasing complexity of technology.

Among the measures proposed in the document for achieving the above objectives are the following:

- i. expansion of facilities for the training of technical education teachers;
- ii. early introduction of elementary technology into school curriculum 'to inculcate an attitude of respect for an appreciation of the role of technology in society';
- iii. arrangements for contractors to engage the services of students of technical institutions with the object of giving these students practical experiences;
- iv. organizing evening classes for technicians and craftsmen engaged in the informal sector such as roadside mechanics; the facilities of technical institutions are to be used for this purpose;
- v. recruiting placement officers into colleges of technology and polytechnics to assist in directing technical graduates to the industries where their services are most relevant;
- vi. increasing the proportion of education budget to be devoted to technical education;
- vii. establishing multi-purpose vocational centres for the training of artisans by state governments;

Finally, the third major action of the government in the manpower development efforts to be examined is the establishment of two parallel bodies to be responsible for the general administration of the polytechnics and colleges of technology on the one hand and the universities on the other. They are the National Board for Technical Education and the National Universities Commission.

The National Board for Technical Education (NBTE):

The Board was established by a decree (National Board for Technical Education Decree, No. 9, of 11th January, 1977) to:

- (a) advise the Federal Government on, and to co-ordinate all aspects of technical and vocational education falling outside the universities and to make recommendation on the

- national policy necessary for the full development of technical and vocational education for the training of technicians, craftsmen and other middle-level and skilled manpower;
- (b) determine, after consultation with the National Manpower Board, the I.T.F. and such other bodies as it considers appropriate, the skilled and middle-level manpower needs of the country in the industrial, commercial and other relevant fields for the purpose of planning training facilities and in particular to prepare periodic master plans for the balanced and co-ordinated development of the polytechnics and colleges of technology;
 - (c) lay down standards of skills to be attained and to continually review such standards as necessitated by technological national needs;
 - (d) collate, analyse and publish information relating to technical and vocational education;
 - (e) review methods of assessment of students and trainees, and to develop a scheme of national certification for technicians, craftsmen and other skilled personnel in collaboration with ministries and organizations having technical training programmes.

The major activity undertaken by the NBTE in enhancing technical manpower development has been the running of 'Students Industrial Work Experience Scheme'. The scheme is designed to give students enrolled in institutions under the Board's jurisdiction experience in their fields as part of the curriculum necessary for the fulfilment of their qualification. It started (the scheme) in 1974 under the auspices of the I.T.F. but was transferred to the NBTE and the NUC in 1978 and has since been run by the two bodies. Under the scheme students are attached to relevant industrial establishments for a fixed period during their course of study. The aim is to expose them to the real industrial atmosphere as they shall meet it in their working life. Under the 4th National Plan, the NBTE intends to build two centres of its own to employ graduates of polytechnics and colleges of technology so that they may acquire more industrial experience by training on the job.

The National Universities Commission (NUC)

The NUC perform functions similar to those of the NBTE for the universities. It among other functions advises the Federal Government on all aspects of university education including the recommendation of policy, and is responsible for the planning and co-ordination of the academic programmes of all the universities in the country. It, like the NBTE, organizes and supervises

the deployment of students of the professional departments of the universities to appropriate organizations to acquire practical work experience towards the fulfilment of the conditions for the award of their degrees.

The rest of this section is devoted to discussing the programmes of the educational institutions concerned with manpower development. The discussions are in two parts; one on formal education and the other on the informal training institutions.¹ They provide and analyse data on the actual programmes of these institutions and the results achieved through the programme.

FORMAL EDUCATION AND TRAINING PROGRAMMES

Formal educational institutions start from elementary through secondary schools to the universities. This discussion, however, concentrates on post secondary educational institutions - the universities, the polytechnics, colleges of technologies, and the vocational training centres.

The Universities

The Nigerian policymakers, it has been argued, have put great hopes on formal education for the supply of manpower needed for the economic development of their country. The role played by the university system there in fulfilling these hopes can hardly be over-stated. It has been responsible for the production of the bulk of the higher level administrative and professional personnel on whom the industrialization of the country now depends a great deal. This was indicated in the last chapter, where, as we saw, the Nigerian engineers and other relevant skills have been mobilized to take over and operate engineering projects, some of which have been built in turnkey arrangements. This important role of the universities has been re-affirmed in the education policy document (1981), which stipulates that the education of higher level professionals shall continue to be based within the university system and that 'it will be rooted in a broad based, strong, scientific background' (p.24). There is a need, the document further argues to intensify and diversify university programmes for the development of higher level manpower within the context of the needs of the economy (p.22). In this regard the Third Plan had fixed the target ratio between liberal arts and science in university out-turn of graduates at 40:60 arguing that there is a great need

1. It should be recalled again that in-plant and on-the-job training were discussed in the last chapter, because of their close association with technology transfer.

for the universities to pay more attention to the development of science oriented courses. The efforts being made through the award of scholarships to tilt the balance of university programmes towards science and the science-based professions will be empirically illustrated below. Similarly we will now embark on an empirical analysis of the university programmes themselves in order to be able to assess precisely their contribution to Nigeria's manpower development.

With the increase in the number of universities in Nigeria has followed increase in university students enrolment. In 1964 that enrolment figure was only 6,707 but had increased many folds to 31,000 in 1975 and 58,000 in 1979. The share of administrative and management studies, engineering and technology; and natural sciences (courses directly relevant to industry) in the latter figure was 24.3%. It has been projected that by the end of the current plan period in 1985, students' enrolment within the universities should have risen to 109,000 with the percentage share of the industry-relevant courses rising to 28.2. Equally, as with enrolment, there has been an enormous increase in the out-turn of university graduates since the 1960's. In 1965, 1,050 students graduated from Nigeria's five universities, but by June 1979 and with the rise in the number of universities, there were 9,124 graduands, 22.4% of them in administrative and management studies, engineering and technology, and natural sciences. Estimates expect the figure to rise to 12,500 in June 1981 and to have reached 90,700 at the same time in 1985. It is stated in the 4th plan that with the new universities of technology joining in graduates production soon, the end of the plan period shall witness a ratio of 56:44 between science and technology on the one hand and liberal arts on the other. This, it is further suggested, would have started Nigeria on the road to achieving the desirable balance between the two groups of disciplines which should be in the order of 60:40 in favour of science and related disciplines. On its part, the Federal Ministry of Education has been working to achieve this balance practically, hence financial resources for federal post-graduate scholarship have been allocated on that ratio, since the Third Plan period. On the other hand, the shortage of science-based applicants has sometimes made it impossible to reach this target in actual scholarship awards. Thus the ratio of the awards in the 1979-80 and 1981-82 sessions for science and arts were respectively, 54:46 and 53:47. In the 1977-78 and 1980-81 sessions, however, the stated desirable ratio was actually exceeded in favour of science. The ratios were correspondingly 64:36 and 65:35.

The Polytechnics and Colleges of Technology

The object of these institutions is to supply the intermediate level personnel which are a necessary complement to high level manpower. The Second Plan had argued that professional and managerial personnel should be supported by intermediate level workers in at least ratio 1:3 and noted that in Nigeria at that time the ratio was 2:1 as was reflected in the outputs of the universities and technical institutes. The plan blamed this on the inadequate emphasis given to technical education. In 1968 there were only five fully equipped technical colleges and these nevertheless suffered from a shortage of teaching staff; a situation which led some students to withdraw from courses which are vital to industry. In recent years the yearnings of the Second Plan have been heeded as technical education now receives more emphasis. Something was said about this in the general discussion which started this section. Another evidence in support of the statement is the rapid increase in the number of polytechnics and colleges of technology. In 1973 there were only eight polytechnics but by August 1982, there were 24 polytechnics and colleges of technology throughout Nigeria. Speaking on his visit to ANAMMCO on April 26th, 1982, Mr. Sylvester Ugo, the Federal Minister for Education, stated that the aim of the Federal Government is to establish a federal polytechnic and a college of technology in each state of the federation, and in Abuja the new federal capital. Each state, in addition, has plans to establish its own poly or college of technology and no less than 8 of them have already done so.

This increased drive to correct the imbalance between intermediate and higher level technical manpower started in the 3rd plan when 11% of total education allocation was invested in technical education. Following suit the 4th plan devoted 20% of its own education allotments for the same purpose. As should be expected from all these, there has followed a growth in students enrolment in the technical institutions and in their graduate out-turn. In 1973-74 only 8,000 students were enrolled in polytechnics and colleges of technology throughout Nigeria. The 1979-80 session witnessed this figure shoot up to nearly 36,000 and with an annual increase estimated at 5,700 it has been projected that there will be 70,000 students enrolled in the institutions in question by the 1984-85 session. On the outturn side, the figure rose from 1,817 in June 1974 to 9,892 at the end of 1979-80 school year. Estimates put the 1981 figure at 11,500 with 29,990 projected for June 1985.

Vocational Education

The aim of vocational education is to train artisans and craftsmen who make the third tier of technical manpower. Training for this category of personnel had been offered in the past through institutions called trade centres, but employers were found to prefer to train their artisans through apprenticeship rather than employ the products of the centres. The basis for this preference as the employers argued, is that graduates of trade centres did not have the requisite practical experience as they were not given sufficient practical exposure during their training. Two steps have been taken to cope with the situation. First, there has been a shift since 1975 from trade centres to technical secondary schools. The aim is to introduce technically oriented youngsters into vocational trades early and to allow sufficient time for them to acquire the necessary skills. The new forum also combines a sound academic education with a technical one as students study major science subjects for which they take the 'O' level examinations, along with their vocational trades. Since their introduction, technical secondary schools have become very popular, especially with the state governments. In the 4th Plan alone these governments intend to establish 150 of them while the Federal Government is to establish six. In 1982 there were already 101 technical and vocational institutions.¹ The second step is the introduction of a 'National Apprenticeship Scheme', which is aimed at formalizing the apprenticeship mode of manpower development by setting acceptable standards, duration of apprenticeship and so on. The scheme is administered by the National Apprenticeship Committee (set up under the auspices of the I.T.F.) which has responsibility for formulating and implementing policies relating to all aspects of apprenticeship training in Nigeria. The recognition now extended to this mode of training has in fact been long overdue. It will require a lengthy fieldwork to enumerate the hundreds of thousands of young Nigerians who learn their technical skills by serving a period of apprenticeship under an adult skilled in the trades concerned, paying a fee for this service where the adult is not a close relation. Trades like bicycle repairs, motor mechanic, watch repairs and even more delicate skills such as the repair and maintenance of electric and electronic

1. The new National Policy on Education (1981) which took off effectively in 1982 has in fact re-organized the country's secondary education system. Under the new arrangement students are exposed to a wide range of vocational and academic subjects for the first three years in 'junior secondary'. At the end of this period those who are found suitable for higher education go to 'senior secondary' for another three years to prepare for entry into the universities and polytechnics. The others are sent to vocational training centres to acquire skills in trades for which they may have developed an interest or shown special aptitudes in their junior secondary.

equipment are almost learned entirely through apprenticeship organized outside the school system. The in-plant training of artisans and craftsmen discussed already must be seen as part of the apprentice method of personnel development.

NON-FORMAL TRAINING INSTITUTIONS

As part of its drive to increase the supply of high-level manpower, particularly in the more shortage-hit areas of industry, the Federal Government has sponsored a number of non-formal training institutions. An account is given here of two such institutions selected on the basis of their importance. They are the Centre for Management Development (CMD) and the Industrial Training Fund (I.T.F.).¹ The account focusses on the objectives of the institutions and the programmes which they have mounted to achieve their objectives.

The Centre for Management Development (CMD)

The CMD is, as noted above, the most important of government sponsored non-formal educational institutions which have been brought into manpower development. Compared with the I.T.F. its scope is broader and by far it has more human and financial resources at its disposal. This may explain why its programmes are more diverse and have accordingly taken more space in this discussion. After tracing the history of the institution briefly, its activities are discussed broadly. This is followed with an indepth description of some of its more important programmes.

The Centre for Management Development on which this discussion focusses is only the operational arm of the Nigerian Council for Management Development. The need for such an organization was first perceived at a meeting of the National Manpower Board in 1965. That meeting had noted that the low productivity in Nigeria derives a great deal from the quality of management at all levels in the national economy. It was, therefore, found necessary to establish an organization charged with the responsibility for improving management skills in all aspects of the organized business. That organization was the Nigerian Council for Management Development established in 1966. Like the Manpower Board which recommended it, things did not go

1. The third non-formal educational institution, the Administrative Staff College of Nigeria (ASCON) is in many respects like the CMD. The major difference between the two is that ASCON's main concern is the training of civil servants. Only a handful of its places is filled with top level executives of private organizations.

very well with the Council in its first existence and the need to revitalize the body was stressed in the Second National Plan. In January 1972 that revitalization took place in a re-organized Council with an operational arm, the Centre for Management Development, but it was not until October 1976 before the Council was formally proclaimed in a Decree (No. 51) which also spelt out the functions of both Council and Centre. Among the functions of the Council are:

- (a) advising the Federal Government on policies, plans and programmes for the enhancement of the number, quality and effective utilization of the managerial manpower resources of the country in all sectors of the economy;
- (b) formulating policies and guidelines for the co-ordination of management education and training activities throughout the country;
- (c) developing and promoting high national standards of management education; entrepreneurial development and supervisory training programmes;
- (d) keeping and maintaining a register of management training institutions and their training programmes, including their subjects, location, standards, duration, type and cost;
- (e) assessing from time to time the training programme offered by these institutions with a view to determining the competence of the institutions and whether they deserve financial support from the Council; and
- (f) providing a forum in which representatives of both the public and private sectors and the management training institutions could exchange information and ideas on trends in management education and training.

The above functions of the Council are to be performed through the aid of the Centre which was itself assigned the following functions:

- i. providing the Council with background information and other technical data necessary for the Council's policymaking and co-ordinating functions;
- ii. providing management advisory and consultancy services to Nigerian enterprises;
- iii. establishing and maintaining an up-to-date library of management studies;
- iv. publishing journals, research papers and books on modern management and supervisory techniques; and
- v. sponsoring, promoting and conducting research into all aspects of management and allied subjects in relation to the Nigerian situation.

For its own operations the Centre is divided into six departments, each taking charge of a number of the above functions. The departments are: Research and Planning, Grants and Liaison, Technical Services and Support, Education and Training, and Small Scale Industries. The first four departments above are engaged in activities which are either, administrative in nature (Grants and Liaison), or in activities rendering services to the Centre (Technical Services and Support), or in activities which are conducted through other organizations (Research and Planning). Also consulting is an activity shared by the other operational departments. Only the remaining two departments are engaged in activities concerned with the development of manpower and will therefore be considered in detail.

The Education and Training Department

The primary objective of the department is to expose management educators and trainers to new training techniques. To achieve this task it develops new training programmes, and produces training materials and teaching aids for the above educators and trainers. There are three divisions within the department : In-plant Training, Public Enterprises and Curricula/Institutional Liaison. The tasks of these divisions are respectively:

- i. assisting private enterprises to develop their own training programmes, and improving in-house management development programmes at all levels.
- ii. promoting and developing programmes aimed at enhancing the management efficiency of parastatals and public companies. (Its method is to develop and introduce new management techniques to the enterprises concerned. It has, for example, introduced 'Programming for Improved Performance', for use in the Nigerian public enterprises.)
- iii. exposing management educators and trainers to new training methods, developing new training programmes, setting and maintaining standards, and producing training materials and teaching aids.

The Education and Training Department runs two important workshops as follows:

1. The Mandev Train The Trainers Workshop: It is a two-tier programme which runs for 13 weeks. First a seven-week programme called module I provides practical and theoretical teaching ideas to people involved in management training, who already have experience in the field. This experience is drawn upon to design

methods for the study and application of management training. The module I schedule is followed by module II which lasts for six weeks. Here participants are exposed to advanced management training skills. Between 1974 and August 1982 307 people participated in this course.

2. The Case Writing Workshop: The aim of the workshop is to train Nigerians to write up indigenous management cases for use in management training institution. Fifty such cases have so far been written. The department hopes to be in a position to replace all foreign management cases with local ones by 1985. 81 people took part in the workshop between 1977 and 1981.

Small Scale Industries Services Department

The main objective of this department is to help with the development of manpower for small scale industries.¹ It achieves this task in two ways. First, it trains industrial extension workers who in turn go out to train small scale industrialists in various aspects of industry such as production, personnel and finance. Secondly, it holds direct training courses for the small scale industrialists again with particular attention to the above aspects of industrial management. Greater importance is attached, however, to the first training programme. The argument is that like all the other Train-the-Trainers courses run at the centre it has a multiplier effect. The most important course in this programme, 'The Industrial Management Training for Extension Officers (INDEXTRAC)', is designed to turn out participants who according to the head of the department, 'will become consultants in small scale industries'. The course therefore aims to equip these

1. It also tries to influence government policies in favour of small scale industries. In a draft paper on 'National Policy on Small-scale Industries' submitted by the department (through the Centre) to the National Assembly, it recommended a wide range of measures to aid small-scale industries. These measures the department argues are necessary to enable small-scale industries play a more vital role in the Nigerian economy as they have done in other countries. Japan, India, Korea and the Philippines were among the countries named as examples. The assistance given by the government in these countries, the argument continues, has enabled small-scale industries to take over the manufacture of radios, T.V.sets, and many other electronic equipment. Among the aids recommended for small-scale industries in Nigeria are the improvement of marketing systems, the provision of adequate infrastructure and financial aids, the encouragement of sub-contracting of the manufacture of component parts by major manufacturing firms, and government patronage through the purchase of the products of small-scale industries, and, finally, it was recommended that a Commission be set up to be responsible for making policies for small-scale industries throughout the country.

people with 'practical oriented tools, techniques and strategies in industrial management...' (CMD Brochure). This is to enable graduates of the course, according to the publication, to perform the following tasks:

- (a) guide the entrepreneur of small scale industry to develop systems, procedures and managerial control techniques;
- (b) define the real problems of the entrepreneur and provide alternative solutions;
- (c) recommend appropriate technological options and supply specific management and technical information that is easily understood and adopted by the small industrialist;
- (d) perform and conduct manufacturing and management diagnostics to help the entrepreneur get the total view of the enterprises's operation.

The duration of the INDEXTRAC course is 9 weeks; a five-week class work on achievement motivation training, extension concepts and strategies, essentials of business/industrial management; and a three-week field work on integrated plant survey in which participants are sent in groups of 3 or 4 to small scale manufacturing companies to conduct an indepth study of all aspects of the companies using the methods of analysis, observation and verification and are expected to recommend solutions to observed problems. Entry requirements for this course are three years of working experience in industry or commerce and a degree in any of the following disciplines: business administration, commerce, economics, and any branch of engineering. 91 people graduated from INDEXTRAC between 1978 and the summer of 1982. Other courses run by the department are: project feasibility study, achievement motivation trainers training, and, how to run a business. These are shorter courses ranging from 1-3 weeks and accommodated 159 participants between 1980 and the middle of 1982.

The Industrial Training Fund (I.T.F.)

The I.T.F. came into existence with Decree No.47 of October 8, 1971. Its main objective according to the decree is 'the promotion and encouragement of the acquisition of skills in industry and commerce with a view to generating indigenous trained manpower sufficient to meet the needs of the economy'. The functions of the Fund are (Decree No. 47 : 1971):

- i. to provide facilities for training of persons employed in industry and commerce;
- ii. to approve such courses and facilities provided by other persons;

- iii. to consistently and regularly consider operational areas of industry or commerce that require special manpower development actions and to recommend the kind of training needed, the standards to be attained and the method and procedure for enforcing the standards.
- iv. to assist persons in finding facilities for training for employment in industry and commerce; and,
- v. to conduct or assist other persons to conduct research into any matter relating to training in industry.

On its inception, the Fund organized its activities around the following broad objectives which it worked out for itself:

- (a) the need to get employees to recognize the importance of improving their skills and competence and of increased efficiency in their job;
- (b) the need for training requirements to be identified, planned and programmatically executed and on a continuous basis.
- (c) the need to foster co-operation between employers in industry and commerce and the Federal Government in their joint efforts to improve the skills of Nigerian industrial workers.
- (d) the need for a continuous evaluation of training programmes especially those run by employers as a means of monitoring their effectiveness.

On the basis of the above objectives, the Fund carries out the following activities -

Identification of Training Needs of Firms: Firms are assisted in the identification of training needs and in the design and execution of training programmes to meet the needs. Between 1979 and 1981 a total of 70 firms were assisted in this way.

In-plant Training Scheme for Small and Medium-sized Companies: Introduced in 1979 the scheme is aimed at improving work processes. By July 1982 a total of 423 machine operatives and technicians have participated in the scheme.

Short-term Direct Training Courses, Seminars and Workshops: The Fund's original aim was to bring about improvement in personnel skills through indirect means such as in the two methods just described above. There has been a shift from this as a result of the pressure put on the Fund by its employer-clients for more direct action. The employers, who have

become very dependent on the I.T.F. for their training needs, argue that their interest would be better served if the institution were to have direct training programmes. In response to this, the Fund in 1974 launched training courses which are organized mainly through seminars and workshops. Participants are nominated by employers. The following courses and workshops were held between 1974 and July 1982:

- i. Basic Secretarial Duties Course;
- ii. Train-in Trainers Workshop;
- iii. Industrial Safety Workshop;
- iv. Curriculum Design Course;
- v. Development of Training Personnel Course;
- vi. Instructional Techniques Workshop;
- vii. Evaluation Techniques Workshop;
- viii. Preparation and Use of Training Aids Workshop;
- ix. Industrial Productivity Workshop; and
- x. Training Function Course.

People who participated in the above courses and workshops range from foremen to managers and a total of 3,421 took part in the period covered.

Vocational Training Programme: Following its new orientation, that is, its acceptance of the argument for direct action, the Fund was in September 1982 finalizing plans to establish industry-oriented vocational training centres. The first of the centres is expected to have taken off in October, 1982. Courses at the centres is to last three years during which period trainees will shuttle between the classroom and industry to acquire practical experience. The content of the training programmes at the centres is to include courses in the following broad fields: general mechanics, crafts practice, electrical installation and maintenance, and, agricultural machinery maintenance and repairs.

CONCLUSION

This concluding section takes a look at the manpower strategy as a whole. It concentrates on the major issues raised about the said strategy - its goals and objectives; and the programme of actions which have been formulated and implemented to achieve them - in the preceding presentations.

Statements about the goals and objectives of manpower development in Nigeria do not have a single source. They have been scattered among the various public agencies concerned with the exercise and among the laws which have brought these agencies into existence.¹ In spite of the variety of their sources, the message carried in these statements is the same: the need for Nigeria to work towards self-sufficiency in manpower generally and industrial manpower in particular.² The analyses and discussions presented in the body of this chapter contain the details of the programme of actions embarked upon to achieve this grand objective which predicates the acknowledgement by scholars, planners and policymakers themselves that manpower shortages constitute a serious hurdle to the effective implementation of public policy generally in Nigeria (Dudley, 1982 : 245). We may only re-state the actions here in broad terms and perhaps more forcefully as the case may be.

There has been what will be described here as, institutional mobilization on a massive scale, in the attempt to define and solve the manpower problems of Nigeria. We recall here the proliferation of manpower policy-making institutions like the NUC, the NBTE, the National Apprenticeship Committee, and, above all, the National Manpower Board. The methodological approach of the latter body, the most important in the group, to manpower development has been commendable. In its manpower planning exercise we have seen how borrowing the concepts of economics it has been able to determine fairly approximately (especially in the short term) the extent of manpower demand for various occupations in large and medium sized establishments and to offer insight as a result into measures necessary to bring supply closer to demand. On the other hand, various educational institutions (formal and non-formal) have been intensively used to supply the needed manpower especially in the industrial sector where the shortage has been more acute. In this regard it should be remembered that special efforts were made within the forum of the NUC to ensure that the manpower needs of the economy determine the course of studies and specialization provided in the educational institutions. We should also recall that the manpower development efforts have been stretched beyond the educational institutions into informal arrangements

-
1. Yet another source are different policy documents, some of which were mentioned at the end of the second section.
 2. And may be taken as the grand objective of manpower development in Nigeria.

where the popularly used apprenticeship method of training in Nigeria has been recognized and formalized. These actions reflect to a very large extent the recommendations of the ILO (1967) regarding manpower planning for industry and the effective utilization of the planned manpower.

One important thing that has not been done is the projection of the economy's requirements for the various categories of manpower into the long term so that a continuing balance may be maintained. The failure to do this poses the danger of either over- or under-supply in the future with undesirable consequences for the economy whichever the case.¹ The declining oil revenue, which has been, and will for some time be, the life blood of the economy, in fact suggests that it is over-supply which is more likely. The two complementary reasons for this is that as public investments dwindle for lack of investment funds, foreign investments will dwindle at the same time for the loss of confidence in the strength of the Nigerian economy.² This will mean then that a shrunken Nigerian economy will be unable to absorb the products of the manpower development institutions which have been provided to serve an ever expanding economy anticipated by the planners.³ Dike (Yusufu ed., 1969) argues that if a choice were to be made between under-supply and a surplus of manpower (where the ideal situation of a balance cannot be attained) the latter will be more desirable because the surplus produced will only constitute an over-supply in the short-run. In the long run he contends, 'a surplus of educational persons tends to be self-adjusting through the reactions it sets up' (Lewis, 1971, cited, Yusufu ed., 1969: 206). The suggested reactions include: emigration, in which some of the educated persons export their skills to other countries; innovation, where some of the educated persons apply their knowledge in new ways as a result of which the productive capacity of the economy is increased; a lowering in the expectations of the educated persons which disposes them to accepting less remunerative and dignifying employment than they had expected; and a rise in the educational requirements for selected occupations which thus keep some of the educated persons longer at school and out of the labour market. Dike had argued that all the elements in the above reactions are important to Nigeria. For the first he believes that educated Nigerians are going to

-
1. T.M. Yesufu (1969 : 105) argues that over-supply will lead to unemployment of educated highly skilled men and that this may produce 'serious economic, political and social consequences...' Under-supply, Yesufu continues, will 'lead to non-fulfilment of important programmes'.
 2. Thus in the final analysis even the investment and the technology strategies may face serious crises as a result of what is happening in the oil sector.

play a larger role in meeting the needs of other African countries, a process which he thinks will be aided by the machinery for co-operation among member-states of the continent. Dike has since been vindicated by subsequent events in this direction. Today educated Nigerians are found working not only in African countries but also in countries outside the continent especially in America and Britain. Many of these people ironically have qualifications in areas like medicine and engineering, where Nigeria has yet to produce a surplus. It can similarly be shown that the other reactions in Dike's suggestion are also empirically valid for Nigeria.

On the whole, however, the manpower strategy is as bold as the investment and technology strategies considered earlier. Like them also it reflects the pride of place occupied by the country's industrialization policy in its cosmos of economic development policies. The one difference between those other strategies and the present one is the extent of their dependence on external forces. We have seen, for example, that foreign investments and the activities of the MNCs in Nigeria have had negative consequences respectively for the investment and technology strategy being pursued in the country. The manpower strategy has not been seriously disadvantaged in this way. This should make it possible to maximize the rewards of the strategy to counterbalance the losses imposed on the industrialization policy as a whole as a result of the above external forces. The technology strategy in particular offers a wide scope for this, as both strategies tend to meet at a point in their broad concerns. In the final analysis, of course, technology can only be expressed in human knowledge and his skills.

CHAPTER SEVENCONCLUSION

Three objectives will be pursued in this chapter. First, the systems model will be applied to the analysis of the policy process in Nigeria. The objective here is to demonstrate the comprehensive applicability of the model stressed in Chapter 2 and to use the attributes of the model to analyse and discuss some of the salient issues in the policy process in Nigeria generally and the industrialization policy in particular. The questions raised and answered include: What are the environmental inputs in Nigeria's industrialization policy? How are these inputs processed into policy? Who are those involved in initiating and setting the goals of public policy of which industrialization is part, and in whose interests are these goals set? Who are those involved in achieving the set goals and how exactly do they go about this task in regards to implementation and evaluation? These questions are examined with reference to the relevant section of the systems model applied here specifically as a political and public policymaking system.

The second objective of the chapter is to summarize the major conclusions of this study. This is done mainly by bringing together the conclusions in the previous chapters and relating them to the systemic analysis made in the present one.

Thirdly, the subject matter of the thesis is examined within the context of the present study and future research. The questions addressed are: Why has industrialization been chosen as the policy area for this study? What have been the major features of the study, and what especially are its limitations? Of what use is the present study to future research in this policy area and in the Nigerian policymaking process generally? How can the study be of use to studies aimed at improving policymaking in Nigeria, and where in the policy process should such studies direct initial attention? These questions and their answers conclude the study.

THE SYSTEMS MODEL AND THE POLICY PROCESS IN NIGERIA

The main features of the systems model were described in Chapter Two with the aid of the diagrams formulated by scholars who have found this model serviceable. Four main parts may be distinguished in a political and public policymaking system. First there is the total environment of the system (Appendix 1) provided by all the elements in its vicinity which is contiguous with the system and which provides the spatio-temporal milieu within which it operates and with which it interacts. These elements are systems in themselves hence the often used concept of sub-system. They may be ecological, biological, personality and social and they provide the intra-societal environment to be distinguished from the extra-societal environment provided by the international political, ecological, and social sub-system (Appendix 1). For Nigeria's industrialization policy its intra-societal sub-systems are provided by the state of its under-developed economy, for which industrialization was seen as a stimulus, and the consequent lack of technology, technical and managerial skills, including indigenous industrial entrepreneurship; and the economic behaviour and characteristics which they have created, especially the behaviour and actions of the policymakers, and indigenous businessmen. The extra-societal environment is provided by the foreign multinational firms, their attitude towards the Nigerian economy and their interaction with Nigerian administrative, political and business elites.

Secondly, a policymaking system has inputs. These are the aggregate of the effects flowing from the environment into the processing unit of the system (Appendix 1); it comes very close to what we have called ecological urge. Inputs are made up of demands and support (Appendix 1) or demands, support and resources (Appendix 3). It is these inputs which create the basis on which policy ideas originate in response to ecological urges. For the policy considered in the thesis, demands consist in the desire and zeal for rapid economic development first expressed by the elites who took over power at independence and shared by later political elites. This desire grew from what has become a standard reference in the speeches of the leaders of the under-developed world: 'there can be no independence without a developed economy'. The dependency school argue that such a statement and the efforts to implement it are in the best interests of these leaders, as only with a more developed economy can they strengthen their position vis-à-vis the 'international capitalists' with whose support they have been able to

maintain a grip on their national governments and to extract surpluses from their national economy to share with the former in payment for its support. Frank (1969, 1972 and 1975) is a leading exponent of this argument as it applies to Latin America and writers like Callaway (1975), Osoba (1976), Williams (1977 and 1980), Shaw (1980) and Onimode (1982) have argued the validity of the dependency theory for Nigeria. Accordingly the support for economic development policies in the country has come from within the elite itself and from the multinational firms who are motivated by the profitable opportunities offered by an expanding economy which is at the same time open to political penetration and manipulation. We will come back to this shortly.

The resource inputs for industrialization policy had come originally from agricultural exports which were channelled through the government owned produce marketing boards. This arrangement enables the government to pay low prices to the farmers for their export produce (the marketing boards were the sole buyers of this produce) which were then sold in the world markets many times the prices paid to the farmers. The huge profits accumulated from this provided most of the resources for the First National Development Plan. Between 1946 and 1962, for example, marketing boards accounted for 62% of the funds for the Nigerian public development institutions (Helleiner, 1966 : 249). From the Second Plan onwards oil revenue took over as the main source of development funds and as we have seen has held sway over the fate of the industrialization policy as indeed it has over all other policies of the government since then.

The third, and perhaps the most active part of the policy system's model, is the processing unit. This is the factory house of the system where policy ideas are agitated in response to ecological urges and processed into policy outputs. This is the unit containing the multi-variant dynamics of the system and the multi-methodological approach which it offers for policy analysis and requires, therefore, a fuller explanation than has been the case so far. Hence attempts will be made to cover all the essential features of what actually takes place here and how it has applied to the policy process considered in this study. The first group of elements here are the parties, interest groups, and public opinion expressed through the mass media and informal groupings. This is referred to as the gatekeepers who may 'initiate a demand' or 'determine its destiny' (Easton, 88). The gatekeepers in Almond and Powell's terms (1966) perform the function of interest articulation and interest aggregation in the political system. These

functions correspond with what was described in Chapter One as the agitation of policy ideas and their placement on the political agenda. The gatekeepers, therefore, serve as the starting point of the decision-making process leading to policies (Smith, 1976); that is, they play a major role in what was described before (Chapter 1) as policy initiation. Parties especially have a great influence not only on what goes on to the political agenda but play an important role in determining the relative importance of the issues already there and hence the urgency with which they will be considered and the amount of resources that each will receive. This should be what Easton means above by gatekeepers determining the destiny of demands which are being processed into policy. In Nigeria, however, as we have seen before, parties have not played this role for the industrialization policy. Its entry into the political agenda was due more to the political and administrative elites acting (as was argued above) to protect their own interests.¹ Of course the political and administrative bureaucracy as well as the judiciary as proximate policymakers (Lindblom, 1968) are responsible mainly for the formulation and implementation of public policy but they do initiate policies as well in the process of performing these roles. In political systems where parties are not fully developed these organs may dominate or even monopolise the initiation of policies altogether (Riggs; La Palombara ed. 1963). This was the case in Nigeria in the period before the military era. The under-development of the parties we argued is attested to by their lack of political ideology and programme-based manifestos. Rather than strive to procure political ideologies and their derivable public policies, to form the basis for a manifesto appealing for national support, the political elites devoted their energies to preaching and practising sectionalism under the umbrella of a political party, hence parties became vehicles for mobilizing ethnic support and ethnological solidarity; each political party seeing itself as representing and defending the interests of one particular region of the country against the others. The regions: East, North and West, happen to be predominantly occupied by a different ethnic group. Thus the Action Group (AG), the National Council of Nigeria and Cameroon (NCNC), the Northern Peoples Congress (NPC), saw themselves respectively as representing the interests of the Yorubas of the Western Region, the Ibos of the Eastern Region, and the Hausa/Fulanis of the Northern Region (Sklar, 1963; Post, 1963).² So pervasive was this

1. On this see also Ekong (1976-77 : 125).

2. Each party was also in government in the region it represented.

tendency that parties grew up at less than regional levels again to represent a particular area or ethnic group: the United Middle Belt Congress (UMBC), the Bornu Youths Movement (BYM), the Kano Peoples Party (KPP), among others. It was circumstances such as these which left the administrative bureaucracy almost the sole source of programmes and policies and the politicians were just too willing to accept whatever was put forward as they have not been able to produce their own programmes and policies and as they see their interests served by those recommended by the officials in any case. Commentators on Nigeria's First Republic have all agreed that the characteristics of the political parties just described contributed a great deal to its downfall, which is why the makers of the constitution of the Second Republic were so much at pains to prevent the emergence of sectional political parties (Dudley, 1982; Joye and Igweike, 1982). Hence the present constitution provides that (Section 202e):

No association by whatever name called shall function as a political party, unless the name of the association, its emblem or motto does not contain any ethnic or religious connotation or give the appearance that the activities of the association are confined to a geographical area of Nigeria; and [unless also] (my parenthesis) the headquarters of the₁ association is situated in the Capital of the Federation.

In keeping with these provisions only five of the 54 political associations which applied to register as political parties (the constitution assigns this function to a Federal Electoral Commission) were seen to have satisfied the constitutional requirements and registered accordingly: the National Party of Nigeria (NPN), the Unity Party of Nigeria (UPN), the Nigerian Peoples Party (NPP), the Great Nigerian Peoples Party (GNPP), and the Peoples Redemption Party (PRP). The first two parties turned out to be the largest in terms of electoral performance. They also, together with the last, made what appears to be a programmic appeal for the 1979 election. Thus the NPN emphasized what it called qualitative education, housing and

1. Section 203 (1b & 2b) provides additionally that, 'The constitution and rules of a political party shall... ensure that the members of the executive committee or other governing body of the political party reflect the federal character [and this is deemed to have happened] only if the members thereof belong to different States not being less in number than two-thirds of all the States comprising the Federation'.

agriculture in its programmes. The UPN proposed a 'four cardinal programme' to include free education at all levels, full employment, integrated rural development, and free medical services. For the PRP Nigeria required 'a new social order' as a remedy for its socio-economic and political malaise. On the basis of these developments an ideological arrangement of the parties has been attempted in which they are seen to come on a 'left/right' continuum as follows (Dudley, 1982:194; Diamond, 1982:629-68): the PRP, the UPN, the NPP, the GNPP, and the NPN. Diamond in fact describes the NPN as 'a conservative, boldly capitalist and classically liberal professed party with great emphasis on private enterprise'. Williams (1980: 17) on the other hand sees the PRP as a party based on class conflict, the party of the commoners who therefore identify with and support the party. One is not easily convinced however on the basis of the actual policies implemented in the states in which the respective parties are in government¹ and the actions of their members in the National Assembly that there is a valid basis for the above classification. Dudley did emphasize that in spite of his arrangement 'ideological disputes have never been a prominent feature of Nigerian politics' (1982 : 195). Thus when the members of the National Assembly voted their salaries, they all saw to it, irrespective of their political parties, that they got as much as they could grab, and this turns out to be out of proportion with their productivity and by far out of tune with egalitarianism. They thus put themselves together with political office holders, on the top of an existing salary and wage structure which has a gap as wide as ratio 50:1 and neither the PRP nor the UPN, the so-called leftist parties, opposed the move either within the legislature or through their party secretariat. It must be stated, however, that the PRP did attempt to mobilize the common people in the two states (Kano and Kaduna) where they are in government, especially through mass literacy campaigns and agricultural development in the rural areas. It also abolished in its two states, immediately it assumed office in 1979, the poll tax which introduced since the colonial days had provided their collectors (and in the North including Kaduna and Kano States, these were the District and Village Heads) a means of oppressing those who paid the taxes the vast

1. During the 1979 election the NPN won a majority in both Houses of the National Assembly, the Senate and Representatives; the Presidency, and was in government in 7 states. The UPN, NPP, GNPP, and PRP were respectively in government in 5, 3, 2, and 2 states.

majority of whom are poor peasant farmers.¹ But all these do not equate the radical pronouncements of the party and the equally radical posture attributed to it by some observers of the parties of the Second Republic. What has, therefore, tended to magnify the extent of PRP's radicalism is the high degree of the conservative and capitalist characteristics of the NPN. These characteristics as they operate to foster an alliance between the party and private business is discussed below. Meanwhile we will examine further the position of ideology in the Nigerian politics of the Second Republic.

It has just been argued that the separation of the political parties on an ideological scale is acceptable only in the narrow and relative sense of comparing them among themselves. It may be argued further that what ideological shades the parties may have put on has happened by default as none of them sees a role for ideology in politics and therefore strive to procure one in the sense in which ideology and its socio-economic and political function is explained below. It seems as if political leaders shared the views of the military who had dismissed any role for ideology in future Nigerian politics when they were in the process of handing over power to the civilians. Hence at the inauguration of the Constitution Drafting Committee (CDC) the Head of State, General Murtala Mohammed had stated (Report of the CDC, vol.1, p.xi(iii)):

Past events have..... shown that we cannot build a future for this country on a rigid political ideology. Such an approach would be unrealistic. The evolution of a doctrinal concept is usually predicated upon the general acceptance by the people of a national political philosophy and, consequently until all our people, or a large majority of them, have acknowledged a common ideological motivation, it would be fruitless to proclaim any particular philosophy or ideology in our Constitution.

When, however, the CDC took off, its sub-committee A on 'National Objectives' saw an important role for ideology in Nigerian politics which it supported

1. The tax is not fixed in amount; the District or Village Head charged variable rates and officially he is supposed to base this on his assessment of the wealth of a household; but in practice he apportions the tax according to how much favour or disfavour he wishes to show to individual households. So to start with a household might be assessed far beyond the ability of its occupants and when they cannot pay they are subjected to various kinds of punishments and humiliation, such as asking them to sit all day facing the sun, or they may be jailed in the customary court. Only months after the PRP governments abolished the poll tax, the President issued an executive order abolishing the tax throughout the Federation, and it has been suggested that the NPN feared the potential grassroot support which the PRP might get from its moves if left alone with it.

with the following argument (Report of the CDC. vol.II, 35-36):

...ideology arouses a certain scepticism and suspicion in us. Yet every new nation has a special need for a nationally accepted ideology. For unless the goals and fundamental attitudes and values that should inform the behaviour of its members and institutions are clearly stated and accepted, a new nation is likely to find itself rudderless with no sense of purpose and direction. By directing the goals of society and prescribing the institutional forms and procedures for pursuing them, ideology seeks to direct and correct the efforts and actions of the people toward the achievement of these goals. In this way it seeks to unite the society into one nation bound together by common attitudes and values, common institutions and procedures, and above all an acceptance of common social objectives and destiny.

The sub-committee goes on to urge that Nigeria should take advantage of the unifying function of ideology to weld together its heterogenous nationalities and to arrest 'the increasing gap between the rich and poor [and] the growing cleavage between the social groupings, all of which', as the sub-committee argued, 'combine to confuse the nation and bedevil the concerted march for orderly progress'. On the basis of the above arguments the sub-committee was convinced that any further delay in procuring an ideology for Nigeria was unacceptable and went ahead to propose 'a socialist order based on public ownership and control of the means of production and distribution' (Report of the CDC. vol.II, 37). The full plenary session of the CDC did not, however, endorse the above proposal. The majority of its members argued that the mixed-economy, as it had been handed down from the First Republic through successive military governments, constitute an ideology for Nigeria, and the need, they insisted, for a developing country to 'encourage initiative and investment from the population', makes the mixed-economy a more suitable ideology than the outright socialism proposed by the sub-committee. It, therefore, recommended state control of the major sectors of the economy which gives individual and groups the right to 'operate the means of production, distribution and exchange' (Report of the CDC. vol.I, p.xiv). It is, therefore, the above recommendation which has been included in the Constitution of the Second Republic as Nigeria's 'economic objective' section 16 (1). It states:

The State shall, within the context of the ideals and objectives for which provisions are made in this Constitution:

- (a) control the national economy in such manner as to secure the maximum welfare, freedom and happiness of every citizen on the basis of

- social justice and equality of status and opportunity;
- (b) without prejudice to its right to operate or participate in areas of the economy other than the major sectors of the economy, to manage and operate the major sectors of the economy;
 - (c) without prejudice to the right of any person to participate in areas of the economy within the major sector of the economy, protect the right of every citizen to engage in any economic activities outside the major sectors of the economy.

The problem for mixed-economy as it is provided above in the Nigerian Constitution and in the context of the present discussion is that it hardly satisfies the major criteria for which a system of thoughts and actions are said to constitute an ideology. Since Geertz (1964) emphasized the cultural dimension of ideology, which he therefore defined as cultural symbols, later writers on the concept have come to the conclusion that an ideology for a particular socio-economic system must be a reflection of its past and future history (Matossian, 1967; Spinzark, 1973) and that it must make a distinction between theory, in which the ideology attempts to give the particular society a world view, and programme, in which the ideology spells out the actions and policies to be implemented to relate the society in question to the world as it has been perceived by itself through the theory of its professed ideology (Schurmann, 1968; Nellis, 1972). The mixed-economy, as it has been applied in Nigeria, cannot be shown to have been articulated into a theory to serve as a basis for self-redefinition (Matossian, 1967) or to provide a philosophy for practical action (Schurmann, 1968) or spell out the comprehensive programmes of the government which are directly meant to implement an asserted theory (Nellis, 1972). Thus for all practical purposes, Nigerian politics and public policy operates without an ideology, and Callaway (1975: 134) had argued that the absence of an embracing national socio-political ideological framework in Nigeria can only result in ad hoc interventionism, and 'ad hoc intervention opens avenues for individuals and groups to distort allocations to their particular benefit, and for the inculcation of widespread corruption to such a degree that there will be massive resource misallocation with costs to the economy far exceeding the direct cost increases themselves'. This should be an acceptable explanation for why interventionism has produced gross inequalities in Nigeria. Done without any ideological

direction, and done under political leaderships whose members are interested in wealth accumulation for which they see their access to state power as the best means to achieve and aided in this with enormous revenue accruing from petroleum, interventionist industrialization has produced stark class formation in Nigeria. Diamond's (1982: 661, 663) succinct statement on this deserves full quotation:

In Nigeria, state power - the control over such rewards as government contract, jobs, development projects, and import licences, continues to represent what it did two decades ago: the primary locus of national wealth, the chief route of access to the resources and opportunities of class formation. If the articulation of the private sector in the past 15 years has opened possibilities for upward mobility outside the state that did not exist in the First Republic, so the petroleum boom has opened possibilities for accumulation of wealth in office that could not even have been imagined two decades ago..... If more is, in principle, possible - in terms of bourgeois status attainment - outside politics than was possible in the First Republic, much more is also possible in terms of private accumulation and class formation through politics; and it has generally been the strategy of the Nigerian bourgeoisie to take the easy path of enrichment through power, rather than the much more demanding path of genuine entrepreneurship.

The contribution of mixed economy to class formation in Nigeria is discussed fully below. Before that we will turn presently to trade unions as the second element, which presumably should play a gate-keeper role in Nigeria's industrialization policy.

There are a number of reasons why trade unions have never been important in the Nigerian policy process. Firstly, especially during the First Republic they were badly organized. At the level of the political unit - regions or the federation - which offer a scope to them to influence policy the unions existed in more than 250 autonomous units confederated into four national bodies which are ideologically torn apart (Waterman, Williams ed., 1976). Two, the United Labour Congress of Nigeria (ULC) and the Christian Nigerian Workers Council were moderate and reformist while the Communist led Nigerian Trade Union Congress (NTUC) and the Labour Unity Front were radical. The two groups also affiliated to different international bodies according to their ideological leanings. The NTUC affiliated with the communist-dominated World Federation of Trade Unions with headquarters in Prague while the ULC joined the moderate/reformist International Confederation of Trade Unions based in Brussels. This division had made it impossible for the unions to perform a gate-keeper function in the policy process - they could not develop a united view on policy and work to put it as such on the political agenda.

The second source of union weakness has been legal and this developed during the military era when a number of decrees were promulgated to reform the unions or to regulate their activities. One of the decrees is in response to the multiplicity of the trade unions just mentioned. The military acting as a benevolent despot in this regard argued that such an arrangement was not in the best interest of the unions. Besides, it was argued, it opened them to external influences which might affect the interest of Nigeria as a whole. With Decree No.22 of 1978, therefore, the existing trade unions were reformed into 41 industrial unions on which was imposed only one central body, the Nigerian Labour Congress whose leaders were appointed by the government. Federal funding to the tune of ₦4.0m, in what Onimode (1982 : 211) described as 'carrot-and-stick repression of labour', was promised although as he reveals only ₦1.0m was finally given. Similarly Williams (1980) stressed that this re-organization and financing of the unions had weakened their independence of the government, and as would logically follow, their political effectiveness as well. Three other decrees equally weakened the unions - Decree No.31 of 1973, which prohibited them from contributing to the funds of political parties; Decree No.7 of 1976 : it provided that workers can go on strike only after they have taken their case to a government appointed industrial arbitration panel and failed to get redress; and, Decree No.23 of 1976 made strikes illegal in selected services such as electricity, which the decree termed as 'essential services'. All the decrees mentioned above were recognized in the 1979 constitution and therefore continue to have a legal force.

Thirdly, trade unions are weak in Nigeria because political leaders are quick to explain industrial actions outside the purely labour context and to disunite the unions with such explanations (Peace, De Kadt and Williams eds., 1974). In this manner the general strike of 1964 was explained by northern politicians as a plot by their southern counterparts to destabilize the northern led Federal Government; and once this message was conveyed to workers of northern origin they withdrew their support and the initial success of the strike began to crumble straight away. In 1981 again, the demand by the NLC that the monthly minimum wage be raised from ₦60.0 to ₦300.0 and its threat to call a general strike on the matter was denounced by the ruling NPN as the calculated attempt by its rival the UPN to use trade unions to destabilize the federal government. Even the military government of Gowon did not see strikes to have a purely labour motivation, hence Gowon saw the NUT strike of 1972 and later the University lecturers' strike as personally

directed against him even though the stated reason for both strikes was a demand for better conditions of service.

Finally trade union weakness in Nigeria has been attributed to their 'labour aristocracy' characteristics (Peace, 1974). Peace argues that the unions have a vested interest in maintaining the status quo having inherited a number of privileges which colonial officials enjoyed. It should be pointed out that Waterman (1975 and 1978) objects to the validity of the labour aristocracy thesis for Africa and, Nigeria where as he argues the thesis is empirically non-existent. He seems, however, to contradict himself (in Williams ed., 1976 : 166) by suggesting that 'labour leadership [in Nigeria] has been unable to produce a realistic and convincing class strategy', as a result of its failure to develop an effective solidarity with the farmers. We would argue that Nigerian workers in wage employment do not only see themselves as a separate status group from the farmers but they also distinguish themselves from other self-employed workers. One reason why agriculture has declined in Nigeria is because farmers in rural areas flock the cities in search of the secure incomes which wage employment offers. These incomes are also in the vast majority of cases much higher than the farmers could ever earn from their poor subsistence farming; and therefore in fact provide a valid basis for status mobility.

The general case of trade union weakness considered in the preceding discussion differs from the specific cases of other interest groups. It was shown in Chapter One that the two interest groups most directly concerned with manufacturing industry have the opportunity to influence public policy by participating in formulating the development plans or through their pre-budget memorandum to the government. However, they have been more effective, especially since the post-military period, in getting benefits for their members by acting at the implementation stage rather than in their systemic gatekeeper function of policy initiation.

We now take a look at another group of actors in the policy systems processing unit. This group that Easton (1965 : 212) calls 'the authorities' is in many respects the most important. The actors within the authorities which are relevant to this discussion are the legislators, the administrators and the judges.¹ These proximate policymakers (Lindblom : 1968) it was

1. Others are elders, monarchs, paramount chiefs and councillors'...generally it can be said to include members of a system who conform to the following criteria. They must engage in the daily affairs of a political system; they must be recognized by most members of the system as having the responsibility for these matters; and their actions must be accepted as binding most of the time by most of the members as long as they act within the limits of their roles'. (p.212)

argued, perform co-operative and interchangeable roles in formulating and implementing public policy. Within the legislative and administrative processes and between the two are hard bargaining and compromising that reflect the games and the group theories of policymaking. The judiciary we said is the referee in the interaction between the legislature and the executive (administration). The activities of each of these three bodies are highly institutionalized as they themselves constitute the institutional structure of government. The authorities, in processing the inputs reaching them from the gatekeepers into policies, extend further, but this time to a finer degree the rational calculations started at the initiation stage. In that first instance rational calculations merely involves ensuring that demands reflect to a large extent environmental support and to a much lesser extent the resources available. The knowledge of the latter by the actors involved in initiation is limited. The authorities on the other hand have the detailed knowledge of the available resources and are better placed to balance them against demands in making the decisions that finally leave the processing unit as policies. The distinction between policies and outputs made by Smith (Appendix III) is helpful in drawing for analytical purposes the line between formal formulation and formal implementation.¹ It may be taken that formulation ends with policies and that outputs belong to the implementation arena. Here again rational choice, bargaining and compromising feature in making what was described in Chapter One as implementation decisions. More importantly, implementation is a very institutional activity involving governmental agencies and other societal institutions and groups whose interests are affected by the policies being implemented. Clearly then, the authorities within the processing unit and its extension into outputs management play such a dominant role in the policy process that squares with the description of elitist policymaking presented in Chapter Two. It will now be shown that the formulation and implementation of Nigeria's industrialization policy have tendencies or involve activities which can best be explained by some of the policymaking theories discussed in Chapter Two as they are embraced within the systems model. Attention will be focussed on the rationalist, the incremental, the institutional and above all, the elitist theories as it is these - particularly the last - which have featured more in the Nigerian policy process generally and the policy studied in this thesis.

1. A distinction between the two in reality, it was argued before, is hardly possible.

Rationalist activities in Nigeria's industrialization policy involve the searching of the environment for input support, demands and resources and the balancing of these, especially demands and resources. This has been achieved in Nigeria's industrialization policy through development planning and through the budgeting calculations of the executive when they prepare their requests and that of the legislature when they scrutinize these requests before appropriating funds. The provisional sharing of anticipated resources between departmental programmes in the development plans and the annual preparation of departmental requests for budget funds involve group interplay between the departments in what might be seen as instances of the group and games theories of politics.¹ The institutional activities in the processes leading to policies on industrialization and their implementation as outputs are perhaps more manifest than 'group' and 'games' interaction. The highly institutional characteristics of these implementation outputs was emphasized in Chapter Two and explain why much of the empirical chapters have had to be devoted to describing institutions and analysing their activities. Finally, the authorities in the Nigerian policymaking system as it concerns industrialization and indeed all other policy areas is outstandingly elitist. It was stated before that the authorities will always tend to exercise more influence on policy than the gatekeepers; but if ideally, in an average state, the share of influence between them is y and x and is represented by the equation $y = x + a$, where y being the authorities' influence is greater than x by a , in Nigeria the corresponding share of influence between the two groups of actors will be $y = x + a + b$, so that y is still greater than $x + a$, by a margin of b . As pointed out before, this is the most important feature of the Nigerian policy process and will be discussed in some detail presently.

First how has 'elites' been defined in the Nigerian political system? Early writers on Nigerian politics taking the traditional approach have defined the elites to include all those who by birth, education and wealth

1. Although the details of the process was not investigated, interviews with a high ranking official in the Budget Division of the Executive Office of the President (21/8/82) and the Director in charge of industry and commerce at the NPO (interview 4/8/82) confirmed that these are essentially the features of the activities concerned. It should be added that during the military rule the place of the legislature was taken by the Supreme Military Council, otherwise the activities of the executive arm of government, the departments and the bureaucracy in relation to development planning and budgeting, remain very much the same.

have occupied or gained access to power positions within the political system. Among this group are writers like Coleman, Mackintosh, Sklar, and Lloyd. Lloyd's introduction to Lloyd (ed., 1961) The New Elites of Tropical Africa; Smythe and Smythe's monograph (1960) and their book (1962) both with the title 'The New Nigerian Elite', are typical of this group. Lloyd, in The New Elites of Tropical Africa, which is a collection of the papers presented at the International African Institute's seminar had said of the elites, following the consensus at the seminar:

... those persons who were western-educated and wealthy to a high degree relative to the mass of the population... Thus, Nigeria today has nearly 2,000 lawyers in private practice and 600 indigenous doctors in Eastern and Western Regions....

More recently have emerged radical writers who, using Marxist concepts, distinguish between a bourgeois class who control the economy and politics of Nigeria from the proletarian masses who own little in terms of political and economic power. In this group are Williams, Waterman, Osoba, Ake, Nzimiro, Onimode and others. Williams' State and Society in Nigeria, 1980; Osoba's 'The Deepening Crisis of the Nigerian National Bourgeoisie', 1978; and Onomode's 'Economic Development and Class Struggle in Nigeria', 1978; deserve special mention here among the rapidly expanding literature in the marxist interpretation of the Nigerian political system because of their special reference to the industrialization process. The major point of departure for the radical writers is that their analysis of the configuration of the Nigerian elites include international capitalists without whom, they argue, the Nigerian bourgeoisie cannot survive and who are paid for their support by favourable economic policies that secure for them more than a fair return on capital. Hence Williams (1980 : 10) writes:

Nigeria is a class society. The class relations through which producers in Nigeria are exploited involves relations among classes of the Nigerian society and their relations to international capitalism.

One should mention that in between the marxist and the traditional writers, but with greater leaning to the latter, are others who merely define the elites as any group of people within the Nigerian society who have direct influence on policy.¹ Representative of this preference is Frank's 'Ideological Competition in Nigeria : urban populism versus elite nationalism', (1979 : 433-52), where he identifies a 'high-status elite with direct access

1. Or just qualify the term with suitable adjectives to reflect their thinking when applying it to Nigeria. Thus Smythe & Smyth (1972), Demaechi (1972), have called them 'the new elites'; while Ekong (1976-77) prefers to use 'strategic elites'.

to decision-making power'. He suggests that since 1970 this group has consisted of soldiers, bureaucrats, intellectuals, religious and traditional leaders. Osoba's earlier work, 'The Nigerian Power Elite, 1952-65 : a study in some problems of modernisation',¹ also belongs to this category. There Osoba classifies the Nigerian power elites into two:² the business elite and the technocrats. The first 'comprised mainly those self-employed Nigerian men of substance who were in commerce or industry and who were closely identified with the governing parties....'. For the second group, its members comprise people with high academic qualifications and professional training which also guarantees employment 'in the public and quasi-public services, the big foreign firms'; or lucrative self-employment. Lawyers, pharmacists, insurance brokers, accountants, and engineering consultants are mentioned as members of this class. What is important to this study in the foregoing characterisation of the Nigerian elites is that all the groups of scholars mentioned present a pyramidal structure of the power relations in Nigeria - a few at the top with lots of power, and many at the base with little or none; this is the thesis of the elite theory of policymaking discussed in Chapter Two. We will now go on to examine how elitist policymaking functions practically in Nigeria explaining this as we have been doing within the systems model and with special reference to the policy process regarding industrialization.

It was stated before that what emerges as industrialisation policy and its programmes within each development plan starts with ideas from selected people and organizations (see Chapter One, p.28) to whom the NPO had sent invitations for such ideas; but these people and organizations belong to the upper strata of society, and have the characteristics of the elites as they have been presented in the preceding discussion. Thus public policymaking in Nigeria, as this example will argue, is not only 'elite oriented it is influenced by a plurality of elites. The system is relatively open and questions of bargaining within and outside the administration affect policy outputs. This openness of elite interaction which enables individual businessmen with enough influence to get whatever they want from the administration is responsible for the difficulty faced by MAN and NACCIMA (the two interest groups representing manufacturing) in recruiting the top 10% of their potential members mentioned in Chapter One. These men of influence who have an easy

1. A paper delivered at the 16th Annual Conference of the History Society of Nigeria. It has been published in Gutkind and Waterman (eds.), 1976.

2. And he argues that this is for 'analytical neatness'.

access to the administration will have nothing to gain from belonging to the organization which claims to defend their interests. This conclusion was confirmed in an interview with one of Nigeria's foremost industrialists and businessman.¹ Asked about the role he plays in organized business interest groups in Nigeria,² he replied contemptuously that he is not even a member of the group as he will have nothing to gain from his membership. It does seem paradoxical that he should be a member of the Nigerian-British Chamber of Commerce whose conference he was attending to present a paper on technology transfer as a leading Nigerian industrialist when he was interviewed. What appears to have been the case then is that he relies on the Nigerian-British Chamber of Commerce to get business benefits and favours in his international transactions where his Nigerian political connection may not always be of use. The condition whereby public policy serves as the milieu for a symbiosis between the political power elites and their business counterparts (both foreign and indigenous) dates back well into the colonial period and at independence the nationalist political elites accepted the fundamentals of this arrangement and struggled only to make sure that it gave them maximum benefits; hence they did not call for nationalization but Nigerianization of foreign assets (Williams, 1977). Callaway has been more forthright on this. As she argues (1975 : 116):

The fundamental economic relationships established during the colonial era were not judged detrimental to the interests of the political class. The foreign firms paid well for 'protection' from radical elements and offered a certain amount of patronage to the members of the ruling groups by allowing them to serve on Boards of Directors, and Advisory Councils, and allowing them to influence staff appointments. At the same time, many Nigerian politicians were businessmen themselves and the government and business community were mutually supportive of each other. Thus, the politicians found that co-operation, both with the foreign firms and local businessmen, was consistent with their own interests.

What therefore became established in the Nigerian political economy is that politics became the primary source of capital accumulation for professional men, bureaucrats and merchants who in alliance with their political mentors 'were able to... carve out monopolistic advantages for themselves within the neo-colonial political economy and thereby form a bourgeoisie' (Williams, 1977, 284). For Schatz (1977, 156) this element of using politics to maintain

-
1. The interview took place in London on 14/4/82.
 2. That he performed an important role in this group was assumed at first on the basis of his position within the Nigerian business community.

economic and social positions which featured within the nationalist movement should explain why it so well established within the Nigerian politics, 'even to this day'. The most informative source on this matter is provided by Osoba (Gutkind and Waterman eds., 1977 : 370-1). He argues that the zeal of some politically influential Nigerian businessmen to take full advantage of the new source of wealth which politics and political patronage provided led them to mount a campaign against the government for not doing enough to help them achieve that objective; and they were able to use their political allies within the Federal House of Representatives for this purpose. The agitating members cut across all three main political parties in the House and included leading Members like L.P. Ojukwu (NCNC), S.L. Akintola (AG and Leader of the Opposition), and Maitama Sule, a front bench Member of the ruling NPC. The pressure on the government about this matter was so great that the Minister of Works, Alhaji Muhammadu Inuwa Wada was forced to make a statement on the Floor of the House explaining the government position on the award of contracts (House of Representatives Debate, March 1957 and April 1962 : cited, Osoba, 1977 : 370-1):

Contracts are divided into different categories starting from A to G. Category A is £500 to £3000 and then it goes to category G which is over £100,000. We have now registered with the Federal Government 182 African contractors and 25 expatriate contractors. Of the 182 African contractors, 100 are all registered in category A. The trouble is that the Federal Public Works Department happens not to get much work in category A...

Now, Sir, I want to give some rather interesting figures. In 1954-55 12 contracts were let to African contractors to a value of £440,782.

For contracts between £50,000 and £100,000... Nigerian contractors are given preferential treatment. If they compete with expatriate contractors and the difference in the price of tender between the Nigerian contractor and the expatriate contractor does not exceed a certain percentage, the contract goes to the Nigerian contractor. The percentage there ranges from 2½ to 5 ... It is only in the highest categories... above £100,000, that we feel we should allow everybody to compete without any preferential treatment.

The above trend did not end with the First Republic. It went through the military era and into the Second Republic. Thus, Collin, Turner and Williams (1976, 192) state that 'under Gowon's regime, a clique of civil servants directed policy in association with favoured foreign and indigenous capitalist interests'. The probes carried out by the Murtala regime, some of which are documented by Dudley (1982, 319-19) found that only two of Gowon's 11 military

governors did not use their position to acquire wealth and business interests. Dudley in fact referring to the upsurge in government revenue that took place during military rule, especially within the Gowon period, argues and with documented evidence (pp.116-120) that 'the effect of the oil-boom was to convert the military political decision-makers and their bureaucratic aides into a new property-owing, rentier class working in close collaboration with foreign business interests with the sole aim of expropriating the surpluses derived from oil for their private and personal benefits'. The probes referred to above also found many top civil servants guilty of using their official positions to amass wealth and were dismissed from office. This convergence of business and economic interests between the business, the military and the administrative elites became even stronger during the Second Republic. The high concentration of rich men in the ruling NPN, which is also reflected in its leadership, has led Dudley (1982, 192) to describe the party as having a 'business orientation... with predominantly business interest representation...', and in the introduction to Dudley, A.D. Yahaya (1982, 12) argues that the 'National Movement' which was later converted into the NPN was formed with the sanction of the military and, therefore, that 'the NPN is the political expression of the alliance between the top military command, the technocrats, the civilian aids of the military, and their clients'. The struggle for high political offices through the party has indeed been centred within the top notches of the party which includes the intelligentsia, wealthy contractors and mercantile interests (Dudley, 1982 : 190).¹ Thus the President of the Nigerian Republic, Alhaji Shehu Shagari, and his Vice, Dr. Alex Ekueme, are respectively described as a wealthy farmer and a very wealthy architect.² The chairman of the party, Chief Augustus Adisa Akinloye, is a lawyer and an ex-minister.³ These people have held their respective offices since the return of civilian government in 1979. Among the names which have circulated as a possible successor to Shagari from the NPN are Alhaji Mashudi Abiola, a multi-millionaire businessman and industrialist and a top executive of the multi-national telecommunication conglomerate, the ITT. He is widely regarded as the richest Nigerian. Other names include those of

-
1. Balarabe Musa the PRP impeached Governor of Kaduna State once described the NPN as follows (Daily Punch, 20/5/81): 'Its members are very big capitalists with lots of financial resources. It has most of the intellectuals in the country. It has the closest links with feudal institutions..' referring in the last case to traditional rulers who although have no political powers in present-day Nigeria, are nevertheless seen to have a lot of influence within their communities.
 2. An architect by profession he had a thriving architectural firm even before he joined the NPN in 1979 and was among the biggest donors in support of the party's 1979 electioneering campaigns. That firm still exists.
 3. He is also believed to have a wide business interest.

Chief Akinloye and Dr. Ekueme. All these tend to support the widely-held view that NPN is a party formed by the rich businessmen to protect and enhance their business interests, and Dudley would add, in co-operation with, and with the support of, international business. As he argues (1982, 192):

...the business orientation of the party is brought out quite clearly... in the following statement;¹ as Nigerians are energetic people they should be encouraged by themselves, or where suitable, in co-operation with foreign expertise and finance, to take a leading role in the manufacturing sector of the economy. To further this objective, it will be the fundamental policy of the party if voted into power to encourage, protect, and induce foreign capital into Nigeria so that it may contribute to the sound development of the national economy, the improvement of the balance of payments, and the introduction of advanced technology into the economy. [Author's emphasis]

Dudley suggests that the above represented the ideological position of the party and that this is compatible with its 'predominantly business interest representation', and its alliance with international business which is further demonstrated by the fact that the party 'had to rely on the London public relations firm of Michael Rice and Company to handle its publicity' (p.192) for the election which brought it into power. The policy document, Nigerian Industrial Policy and Strategy : Guidelines to Investors brought out barely one year after the NPN took over the Federal Government, and to which many references have been made already seems in line with the above suggestions. It should be recalled that a good proportion of the incentive measures discussed in Chapter Four have been specifically designed to encourage foreign investors.

The preceding discussions have illustrated the elitist nature of the authorities as they concern 'policies' and 'outputs' and as they relate especially to the convergence of interests within the elites which have been fostered through economic policies. The situation in Nigeria, therefore, and as it concerns the NPN in particular conforms with Woddis' conception (1972 : 270) of a process of class formation leading to 'what can now be regarded in some African countries as a definite capitalists class [original emphasis], with common class interests expressed in its control of a political party, its domination over the state and government, and the growing cohesiveness of its economic and political power'. This argument

1. Which was extracted from the party's manifesto for the 1979 election. See National Party of Nigeria Manifesto, 4/12/78, p.7.

can be applied as well but to a much lesser extent to all the other political parties of the Second Republic mentioned earlier. It was pointed out that all of them are in government in various states of the federation. It can be shown that in each case there is an alliance of interest between the political elites in government and the bureaucracy and its supporters within the business community. Dudley's comments on the phenomenon of class dynamics within the Nigerian political economy is important for their emphasis on the disadvantages suffered by the non-elites. His argument suggests a zero-sum relationship between the interests of the elites and those of the non-elites so that the more the one gains the more the other loses. As he puts it (1982, 120):

... commercial capitalism has enabled the new property-owning class to make an incursion into...sectors [including manufacturing] which previously were foreign enclaves, in some cases displacing the foreign interests; in others, collaborating with such interests in extracting the surplus which control makes possible. But in this enterprise, the main losers have been the rural farmers whose interests have been almost totally neglected by the 'new rich' in the pursuit of their collective interest, the utilisation of state power to accumulate wealth.

The role of the MNCs in all of this process of elitist policymaking and the class formation deriving from it should be evident from the references made to foreign interests in the above discussion but it should nevertheless be stated more clearly and stressed. It was demonstrated that Nigeria relies a great deal on them for implementing its investment and technology strategies, and this reflects the policy position of the ruling party just discussed, as indeed it does of all those who have ruled Nigeria since 1960. However, the bargaining between the MNCs and the Nigerian public authorities aimed at achieving the goals of these strategies have always been tilted in favour of the former: they make their profits but their investment and technology policies are not made to enhance the stated goals of these matters (technology and investment) from the Nigerian side and this has been responsible to a great extent for the implementation failures regarding the country's investment and technology strategies. It is not that Nigeria negotiates from a position of inherent total weakness in these bargainings. On the contrary, she has many of the attributes often stipulated as possible position of strength in the negotiations between a multinational and its host country (Hood & Young, 1979; Rothchild & Curry Jr., 1978); in particular Nigeria's large internal markets and its diversified natural resources

should be a bait which the multinationals cannot resist. But as Onimode (1982, 183) argues, in Nigeria 'the comprador-bourgeoisie', acting as agents of the MNCs influence government economic policies especially fiscal incentives to ensure maximum profits for the former because they share in these profits. Secondly, the political and administrative elites get appointed as directors into the MNC subsidiaries from which they earn very high incomes and for the senior bureaucrats this could be the source of capital for entry into business to set in motion the broadening and consolidation of the 'bourgeoisie'. Thus Williams (1977, 285) states:

...the incomes accruing to senior bureaucrats [from their directorship in foreign firms] and their access to state resources and political influence facilitate their entry into business on favourable terms alongside politicians, merchants, army officers,...thereby assimilating them even further into the interests and objectives of the bourgeoisie as a whole.

This practice whereby the MNCs use directorship appointments to gain access to political influence and through this to extract surplus not earned through normal or honest business practice in what Schatz (1969, 681-85) has described as 'Crude Private Neo-Imperialism' runs through the entire period covered by this study and was assuming such an intolerable proportion, at least for some Members of the Senate, in the early 60's that a minority of objecting Members forced a Senate debate on the issue. During the debate held in March 1961, as Osoba reports, Senator Nwafor Orizu made the following contributions (Senate Debates; cited, Osoba, 1970 :374):

The trend now is to call every company a Nigerian company. That is, somebody is appointed from outside, a Nigerian, one foolish man, who is usually given a big salary, ... He has nothing to do with the company.

Senator Orizu's observations became ever more widespread with the advent of the indigenization decrees. The decrees promulgated in 1972 and 1977 we said prohibited foreign investments in selected businesses and provided that Nigerians should be joint owners for ventures which were not covered by the prohibition law. Studies of the formulation and implementation of the decrees have revealed startling information about the extent to which foreign firms had influenced them using both political contacts and fraudulent practices. Collins (1977, 144) reveals that the schedules contained in the 1972 decree were altered after they have been conceived and even before they were known to the Nigerian public 'as a result of pressures from

foreign interests'. The laxity with which the decree was implemented and the widespread allegation of corruption associated with it, led the Murtala regime to institute a panel, the Industrial Enterprises Panel, to investigate the entire indigenization exercise in 1975; only months after it had overthrown Gowon. The report of this panel published in 1976 noted that apart from the weaknesses of government machinery in charge of the decree and its soft approach to implementation, 'some misguided Nigerian citizens' were found 'fronting' for foreign businesses affected by the decree. One way in which this has happened was for such Nigerians to pretend to be partners in foreign firms by allowing their names to appear on the company's records as such even though they have no connection with the firm. They were paid sums of money for this arrangement. Gowon's successors, even though they greatly denounced this fraudulent practices of foreign firms, did not succeed in stamping it out. Thus as late as 1978 'fronting' in the manner described above was mentioned as the obstacle confronting the successful implementation of the indigenization decrees in Sokoto State, where as a result of its low level of industrialization indigenization exercise was minimal and as one otherwise would have expected should be less problematic.¹ The revelations about the influences exercised by foreign firms on the indigenization decrees is only the tip of an iceberg regarding the grip which these firms have had on economic policies generally, including policies on petroleum which is the life-blood of the economy. The Gowon regime was notorious for using economic patronage to buy the support of foreign interests at the expense of Nigeria, especially after the regime had become very unpopular for excessive corruption and its failure to honour the pledge to return the country to civilian rule in 1976. Collins, Turner and Williams (1976, 188) found that:

...Gowon (with the support of some of his senior officials) was using oil-barrel to try to buy support [by] ensuring for Shell-BP a continuous flow of crude oil at cheap prices thereby losing money which Nigeria badly needs for its development [my addition and emphasis].

1. This fact was gathered in an interview with the Secretary of the State's Indigenization Committee, on 14/4/78. The interview was originally conducted to assess the problems encountered in implementing the decrees within Sokoto State in a seminar paper.

What has been demonstrated in the preceding discussion is that the multinationals in Nigeria, in keeping with the general thesis about their mode of operation in the developing countries as presented among others by LaPalombara & Blank (1980), Hood and Young (1979), Leonard (1979)¹ were able for the period covered by this study to penetrate the political elites and to act within that group to enhance an elitist approach to economic policymaking in all its ramifications, including and most importantly too, industrialization; as this approach serves its own interests and those of its indigenous allies. Writers like Turner, Biesteker, Williams, and other radical students of the Nigerian political economy argue that the resulting surplus accruing from this economic relationship gives the foreign interests a larger share and have, therefore, applied the concept 'compradore' to describe the indigenous elements within the Nigerian policymaking and policy influencing elites who are seen in that role as more or less agents of international capitalism.

The final part of a policy system is feedback. Generally feedback provides a mechanism for connecting ongoing policy outputs with the inputs. Its contents consists of information regarding the consequences of decisions and actions embodied in outputs (Easton, 366), hence they may be called policy impact (Sharkansky, Appendix 2). Feedback may be used to maintain the stability of the system or they may be used to secure necessary changes thereof by altering the inputs flowing into the processing units (Easton, 366; Smith, Appendix 3). The information contained in the feedback may emerge from the experiences encountered during the process of implementation but they are appropriately the product of policy evaluation either of the limited and reflective type undertaken by the policy implementors themselves, or of the more detailed and searching type undertaken by policy students and professional analysts. To the extent then that feedback involves the searching for information which may be used to make major changes in the system, it sustains rationalist theories of policymaking. On the other hand incrementalist theories are sustained when the input adjustments are made to maintain the status quo or to bring about minor changes. The vast majority of information feedback are used for the latter purpose in the real world of policymaking (Lindblom, 1959). Nigerian policymaking in general and the industrialization policy being discussed here suffers from inadequate feedback

1. The full list of subscribers to this thesis will be very long.

operations as little evaluation is done either by the administrators themselves or through professional analysts. The confusion resulting from this omission has led to such widespread disillusionment with the impact of the industrialization policy that has attracted the attention of the Nigerian press. The Sunday Times of 24th April, 1977 highlights this confusion with the following statement:

... .. the crucial question is how much industrialization and how much manufacturing is actually taking place in the country? Are we mistaking the cranes and caterpillars and the bulldozers or the ever-increasing number of foreign cars blocking our roads as industrialization? (Cited; Joseph, 1978 : 225).

Joseph (1978 : 225) suggesting that there is some validity in the above remarks argues that it could only have resulted from the absence of an effective agency for industrialization. This argument, however, is too generalized. There is at the NPO the industry and commerce division in charge of planning the programmes and policy statements on industrialization to be included in the development plans; and there are the Ministries of Industries and Technology in charge of implementing these programmes and policy. What was not found in the course of this research is an agency or institution for the vital function of collecting information feedback to be fed into ongoing industrialization policy as inputs to make the necessary adjustments or add new elements thereto. Without this arrangement the kind of wrong perception about what the end result of industrialization policy should be, expressed by the Sunday Times, is inevitable and it is indeed to be found among top ranking policymakers.

The poor state of feedback operation for industrialization policy just discussed has left a noticeable vacuum in the development plans. Statements regarding the growth rate of the manufacturing industries, their rate of capital formation or their contribution to GDP and value added (discussed in Chapter Four) are carried in the plans and each succeeding plan carries the figures for the previous plan. These figures are derived mainly from computations made by the Central Bank. There are, on the other hand, no statements and figures about the extent of technology transfer or the level of the indigenization of industrial investments (both of which, it has been shown are important objectives of industrialization) achieved through each

plan.¹ It is important again to stress the political dimension of the feedback operation in the policy being discussed. Even if an effective agency for evaluation were to exist, their performance could be hampered by powerful political interests. This observation is important because the little feedback information gathered from implementation experience (the only source of such information available at the moment) have not been used to make the necessary adjustments where such adjustments go against powerful interests. This should be obvious from the implementation of the indigenization decrees discussed above, and may be illustrated still further with the 1976 report of the Enterprises Promotion Board, the central body co-ordinating the implementation of the decrees. The report stated:

...from available statistics, a total of about 950 existing enterprises, excluding exemption, were affected by the Decree, [i.e. of 1972] 357 of which fell under 100 per cent indigenization (Schedule II). As of 30th June, 1975, only 58 per cent of Schedule I enterprises and 89 per cent of Schedule II enterprises had provisionally complied. Confirmed cases of compliance after proper inspection numbered only 314 as of 30 June, 1975; that is only about 33 per cent. The enterprises exempted from the Decree, many of them on questionable grounds, numbered 81. Defaulters have, up to the time of this Report, not been brought to book - two years after the original appointed day of 31st March, 1974.

The indigenization decrees are not alone in suffering from defective feedback operations in Nigeria's economic policies. A large part of the failure of the strategies discussed in earlier chapters, particularly with regards to achievement of objectives, is attributable to this minimal or complete absence of input adjustments made in response to feedback information derived from ongoing programmes for industrialization; seen in their aggregate to constitute a systemic process.

Two results have been achieved in the systemic analysis of the policy process in Nigeria presented above. First, the argument that the systems model is multi-methodological as a tool of public policy analysis has been demonstrated with reference to the policymaking and policy studies models discussed in Chapter Two; with greater attention given to those of them which are felt to have been more relevant to the Nigerian policymaking experience generally and its industrialization policy in particular. Second, it has been

1. Some statements appear in respect of achievements made in manpower development but this is due to the activities of the National Manpower Board. These statements, however, do not go far enough in showing the details of the specific items within broad manpower groups such as the number of auto engineers, or steel erection personnel produced within each plan period.

shown that it is indeed possible to consider all the relevant issues about the formulation, implementation and evaluation of a policy being analysed through a policy systems model. Thus the model has been used to analyse the economic, social, and political issues which go into all the stages (initiation, formulation, implementation and evaluation) of the policy studied in this thesis. The political dimension has been emphasized in the analyses made; hence the persons or group whose interests are served by the policies implemented, and how these have affected the policy process on the one hand, and re-inforced the formation of socio-economic classes within the Nigerian political system on the other, have been thoroughly discussed and illustrated. A useful insight which has been gained from the systemic analysis made here is that some of the objectives stated in Nigeria's industrialization policy, such as increase in GDP and value-added or the expansion and diversification of industrial investments which in themselves are rational economic objectives and which are derived from the intra environmental input demands¹ are subordinated to the self-interest of the policymaking and policy influencing elites as the policy passes through the black box. Thus it can also be argued that what achievements have been recorded of these objectives have been equally secondary to the pursuit of elite interests.

SUMMARY

We now bring together the conclusions drawn at the end of each chapter and re-emphasize their main arguments. Attempts will be made to relate them to the systemic analysis made here where this has not been done already.

Two points emerge from the discussions in Chapter One. First the literature reviewed commends the policy approach for its utility in directing attention to policy outputs and in analysing the objectives and programmes of these outputs and the processes, especially the political and the administrative, which went into constructing them. This point is illustrated throughout the thesis, but its most vivid illustration was presented in the second section of Chapter One which discussed the political and administrative dynamics through which ideas are generated and processed into public policy. The flow of interaction between politicians and public bureaucrats in the process was stressed and has been re-stated in the systems analysis made in this chapter.

1. Worked out by the planners and other technocrats and which somehow gets initiated into policy.

Chapter Two argued that public policy analysis does not lend itself to any one of the models which embrace the tools and methods commonly used for this activity except in the single case of the systems model which accommodates the major tenets of these other models. It was suggested that the systems model is, therefore, a supra theory and should be able to perform on its own all the explanatory and analytical functions which are only partially performed by other policy theories. One basis for this conclusion is the range of questions which can be dealt with in the analysis of any public policy using the model in question. This has now been demonstrated with the policy area studied in this thesis.

Chapter Three has been a blend of industrial policymaking and policy theory; and was used to set the stage for the more empirically oriented analyses made in the chapters which followed. It looked at the empirical case of the evolution of industrialization policy in Nigeria and after subjecting the case to the policy process draws conclusions which are valid for this study as a whole - import substitution and export promotion programmes have suffered major defects in their formulation, their implementation and evaluation.

Nigeria's industrialization policy has been pursued within the framework of an interventionist planned mixed-economy but this approach has been more forcefully and comprehensively applied to the investment strategy discussed in Chapter Four. Government investments have the objectives of nursing industries through initial difficulties; of limiting the extent of foreign ownership of industrial assets and of filling an entrepreneurial vacuum. The modes of intervention include legislation which prescribe the scope and behaviour of private investments; planning, which directs private investments into the type of industrial activities desired by the government; direct participation, in which government owns and manages industrial ventures; and a wide range of incentive measures designed to attract more private investments into manufacturing industries. Some of these incentives also aim to stimulate technology transfer and diffusion and to a lesser extent to encourage, as in the case of industrial development centres, the development of indigenous capability in all aspects of industrial activities. An evaluation of the investment strategy showed that although there was a measure of success in achieving stated objectives, results are generally poor and this has to a large extent been due to defects in implementation and

formulation. For example, the poor results in the growth of manufacturing outputs and balance of payments have occurred as a result of the large share of public investments which in many instances are badly managed due to political interference; and the bad choice of the approach to import substitution which because it provides the foundation for the investment strategy has greatly reduced the effectiveness of the latter. Again the elaborate incentives which are sometimes given not on the basis of economic rationality but rather to satisfy vested elite interests have contributed a great deal to this.

Chapter Five presented an example of how poor implementation may make potentially good policies ineffective. It was argued that the technology strategy is clear and comprehensive in its conception and scope, ambitious and adequate in the institutional arrangement for implementation. In spite of all these there has been little achievement of objectives as a result of implementation failures arising from: misplaced emphasis, the opposition of vested interests (who incidentally are the implementors) to proper implementation, the lack of enthusiasm on the part of the MNCs to actively and purposively encourage the development of Nigeria's technological capability. The political-economy¹ of technological transfer and of industrial investments as they operate against the achievement of the objectives of Nigeria's industrialization policy was explained within the systems model above.

The manpower strategy has, like the technology strategy, been clearly conceived and this has been through the effective use of the demand and supply concepts of economics. Using these concepts has enabled the Nigerian manpower planners to go a long way in balancing supply with demand. There is also a great reliance here even to a greater extent than the other strategies on governmental institutions for implementation. It was suggested that the manpower strategy depends less on the MNCs than the other two and that this has contributed to greater success in achieving objectives here. A major failure in implementation in the strategy has been concerned with projecting the manpower plans into the future long enough to maintain a continuing balance in the skills requirements of the economy in the long term. Of the two possible dangers of either over-supply or under-supply which this poses, it is the former that is more likely as dwindling oil revenue may shrink the economy out of proportion with the supply of manpower.

1. Used here and throughout the thesis in one of its different possible usages (Grant, 1982) to mean the politics of economic policymaking.

What then emerges as a final conclusion for this study was discussed in the policy systems analysis made above; Nigeria's industrialization policy has failed to achieve its goals and objectives and this is due to defects in the initiation, formulation, implementation and evaluation of the policy. These defects are perpetrated by powerful internal and external interests, who benefit from them at the expense of the economy and who cooperate to maintain the status quo in this regard. This leads to a point made earlier, but which may still be stressed further. Policymaking in Nigeria, and the industrialization policy discussed here have not involved the participation of the masses of her people.¹ Under the First Republic, as Post and Vickers (1976 : 6) argue, the Nigerian masses were regarded as objects to be manipulated rather than real participants. This condition of a non-role for the masses in the policy process has endured through the military era into the Second Republic, as is borne out by the very elitist character of the country's policymaking system already discussed. Again, Dudley (1982 : 161, 166) makes a forceful statement on this:

The underlying institutional structure of the Second Republic is an elite concensus of intelligentsia and the business-commercial class... In the main, then, the institutional structure of the Second Republic can be taken to rest on, and derive from, an elite concensus, and the constitution which embodied that structure could be said to be a constitution drawn up by the elite for the elite.

Dudley in the above comments was reacting to the fact that mixed-economy which has been regarded as Nigeria's ideology, even if erroneously, and which now serves as the basis of its economic policies, found its way into the 1979 constitution only as a compromise between the more public sector oriented members of the CDC and those who would prefer greater privatisation of the economy; but the two groups, it should be recalled, belong to the elite class. One way, therefore, of characterizing the Nigerian public policy is that it is a balancing of elite preferences. The new military rulers which brought the Second Republic to its end have not so far, that is up to the time of writing this conclusion, taken any action, or indeed indicate any intention, to alter the existing pattern

1. Used in the sense emphasized by Huntington & Nelson throughout their book, No Easy Choice : Political Participation in Developing Countries, 1976, to mean 'influencing government decisions'.

of Nigeria's socio-political and economic relationships and the policy-making system to which these relationships have given rise. The rulers have claimed that their immediate attention has been focussed on solving the grave economic problems which they inherited from Shagari's government. One is not sure whether this is to mean that a new orientation in policymaking is to be expected once the economic crisis is over. We hasten to suggest, however, that a permanent solution to the economic problems will require a new approach to policymaking that cannot be delayed for too long. This must be an approach which in particular enhances mass participation in the policy process and provides a clear ideological basis for government intervention in the economy. It must be stated, therefore, that for the time being nothing has happened in the Nigerian policymaking process to invalidate any of the conclusions drawn in this thesis.

REFLECTIONS ON THE PRESENT STUDY AND BEYOND

A major consideration in the choice of the subject matter of this thesis has been the importance accorded industrialization by the Nigerian policymakers in its economic development efforts. This importance, it was argued in Chapter Four has been demonstrated by the volume of the country's scarce resources devoted to this sector in the development plans and this has been traced back to the First National Plan which designated industry and commerce as on the three areas of special emphasis. The analysis of the manufacturing programmes made in that chapter (i.e. Chapter Four) shows that this trend has continued ever since. In putting such an emphasis on industrialization, the Nigerian policymakers are only falling in line with the generally shared view among leaders of the under-developed world (mentioned already) that industrialization holds the key to sustained economic growth and through that to 'real' political independence. On the domestic front, industrialization enables the leaders to expand employment rapidly as a means of showing that the fruits of independence have arrived or of providing the physical appearance, the leaders believe, of a society changing from colonial servitude and neglect to a free society making a conscious effort to develop.¹ Also, depending on the orientation

1. It must be pointed out that in pursuing this objective, the leaders have sometimes wasted resources in unviable prestige projects which have come to be known as 'white elephants'. Many of the import substitution projects of the 1960s arranged under contractor finance in Nigeria were white elephants (Callaway, 1975).

of the country's rulers, industrialization has profound distributional consequences and could be of great use in re-fashioning the class system. On the one hand industrialization can be used to distribute incomes upwards, where, as has been argued in the case of Nigeria a self-interested elites see in it, and coupled with favourable economic conditions and policies, a source of greater accumulation of wealth. It is possible on the other hand, to distribute incomes downwards through industrialization. This will be the case where a developing country is governed by people genuinely interested in achieving an egalitarian society. Although with some dissenting voices, such as Isa Shiviji's (1974), a majority of writers on the Tanzian political system will put it in the latter category; Barkan and Okumu (eds. 1979) have done so. What is important to the present discussion about this is that in either case industrialization becomes a major focus of government activity and produces therefore varied parameters for analysis. Also, the diverse nature of the industrialization phenomenon gives it a potential for lively scholarship, especially in the expanding area of inter-disciplinary studies. Since government action is multi-dimensional in its impact - that is a piece of legislation and its implementation can be shown to have sociological, economic, political and cultural attributes - industrialization and industrialization policy are ready-made for public policy studies which, even when it is not so intended easily takes on an inter-disciplinary shape. The present study thus has noticeable features of economics even though it is intended mainly as a study in the area of politics.

The conceptual approach to the subject has been to define the elements of public policy and to apply these to industrialization in Nigeria. Thus strategy, programmes, mission, objectives and projects were all seen as the constituents of Nigeria's industrialization policy that should be identified and analysed. There was a need to break the policy into its logical strategies, since the other constituents, especially programmes and projects, will be obvious once this is done. We relied on the neo-classical theories of growth for this which it was argued contain variables which when used to classify the activities involved in industrialization and the formulation and implementation of these activities are fundamental enough to constitute strategies. This was how we came about considering investment, technology and manpower as strategies in Nigeria's industrialization policy. It has been possible, therefore, to avoid having to arbitrarily formulate a structure for the analysis of the empirical data. The structure produced

by the strategies considered seems logical enough. In fact, they have proved to be deterministically interdependent. It has been more difficult however to relate the industrialization policy as a whole to the policies in the other sectors of the economy, except by comparing their relative share of public resources allocated through the development plans. An effective consideration of the policies in these other areas, as they bear on the policy on industrialization, will lead to a lengthy and unwieldy thesis. For instance, agricultural policy in particular is an important economic policy area since at the end of the long debate on the which-first-choice between industry and agriculture, and the policies relating to them in the economic development efforts, writers on the subject have come to agree that both need be pursued pari-pasu (Rivkin, 1963; Cukor, 1974). It should be mentioned that both during the military regime of Obasonjo and the Shagari administration, two major agricultural development programmes were mounted in the name, respectively, of Operation Feed the Nation and the Green Revolution. By contrast, one area to which full reference has been made, is public finance, especially the importance of oil-revenue for public sector industrial programmes. It was shown that the only reason why Nigeria has not followed other import substituting countries in suffering a severe balance of payment crisis is because of its oil revenue. It has also been argued that the balance of the various programmes in the strategies considered hangs very much on what is happening to the oil sector of the economy. The acknowledged limitation of focussing on a single policy area, also argues that prescription will be inappropriate at this stage, hence the study has taken on a descriptive and analytical stance mainly, with only a very marginal prescriptive content. Suggestions will be made below on the possibility of using the present study as a basis for a more prescriptively oriented research in the future.

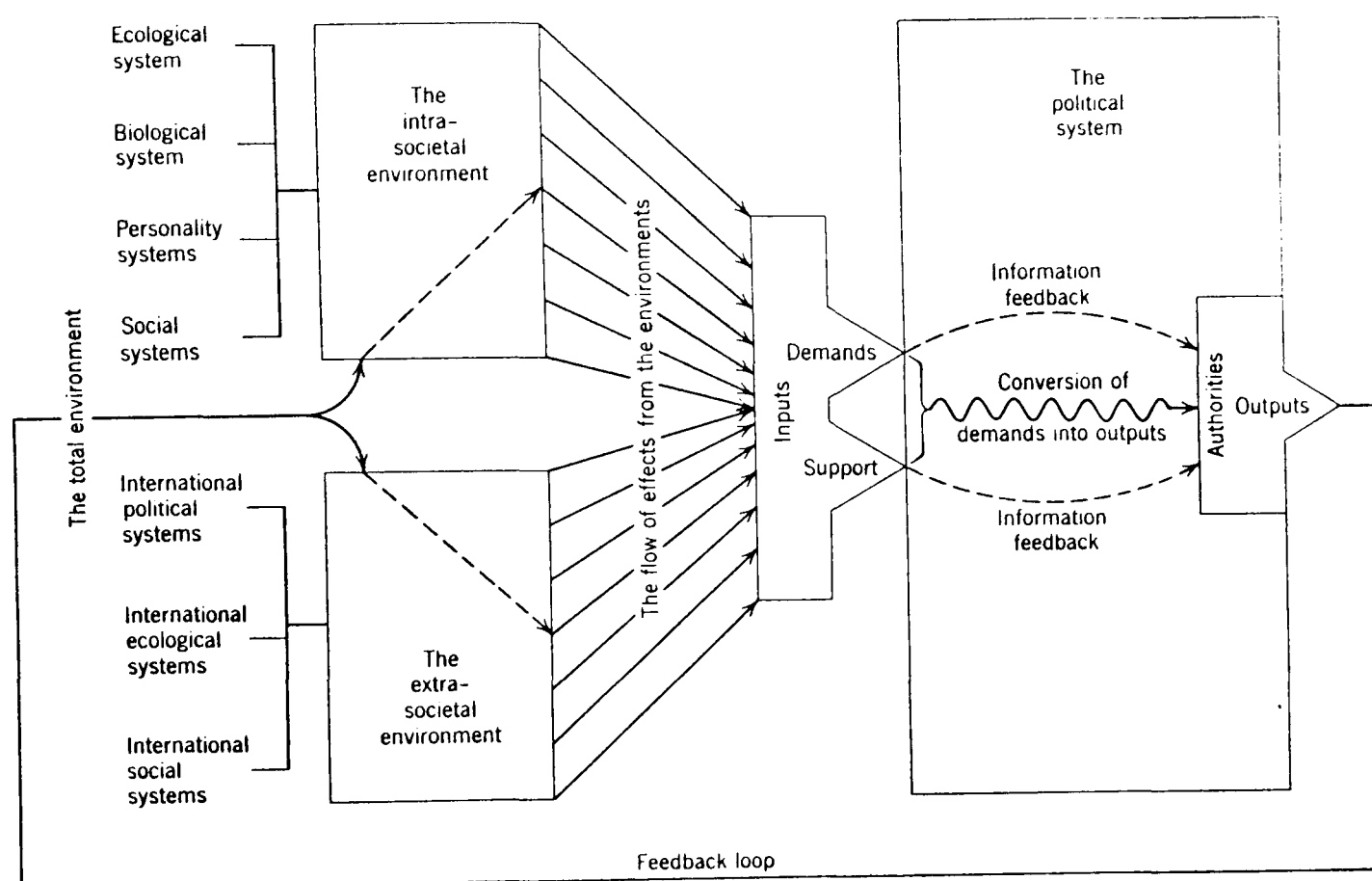
In looking beyond the present study, the question may be asked how can it be of help, first to research interests in the Nigerian public policy-making process, and for improving policymaking in the country. The limitation of the study in making generalizations applicable to the Nigerian policy process as a whole has been noted. As a starting point for building propositions about the policy process in Nigeria, researchers might want to study the politics and processes of another policy area and to compare their conclusions with those drawn for the present study. Agricultural policies, because of their functional affinity with those of industrialization suggested above, should be an appropriate choice for this purpose. A comparison of the politics and processes of the two policy areas should produce

useful results towards the proposition-building objective. Of course the ultimate purpose of proposition-building, it was argued, is to be able to make valid predictions. It is hoped, therefore, that the present study has made some contribution towards making predictions about public policies in Nigeria in the future. The main reason why prescription was not attempted here, it was suggested, is because the study is considered too circumscribed¹ for that purpose. Hence, comparative policy studies in the manner just proposed should be useful as well for prescriptive purposes. Finally, it should be recalled that a number of issues were identified which should be pursued as a follow-up to the present study, such as following Tune's suggestion (see Chapter Two) in constructing a model of industrial progress for Nigeria. Again efforts such as these should benefit from a comparative approach as a model of industrial progress will necessarily contain variables derived from other areas of economic activities. As for improving policymaking, the study exposed the kind of weaknesses to be found in each stage of the policy process. Studies aimed at rectifying those weaknesses will have to be prescriptive and must be limited to one stage at a time, to be detailed enough to make useful and effective prescriptions which hopefully will be accepted and applied by the Nigerian policymakers. Implementation was shown to be more pervasively defective, relative to other policymaking activities; yet implementation is very strategic, offering scope for correcting defects in earlier stages and is involved in either undertaking evaluation or authorizing it. It will be advisable, therefore, to direct policy improvement studies on to implementation at first.

1. In the sense of being limited to a single policy area.

APPENDIX I

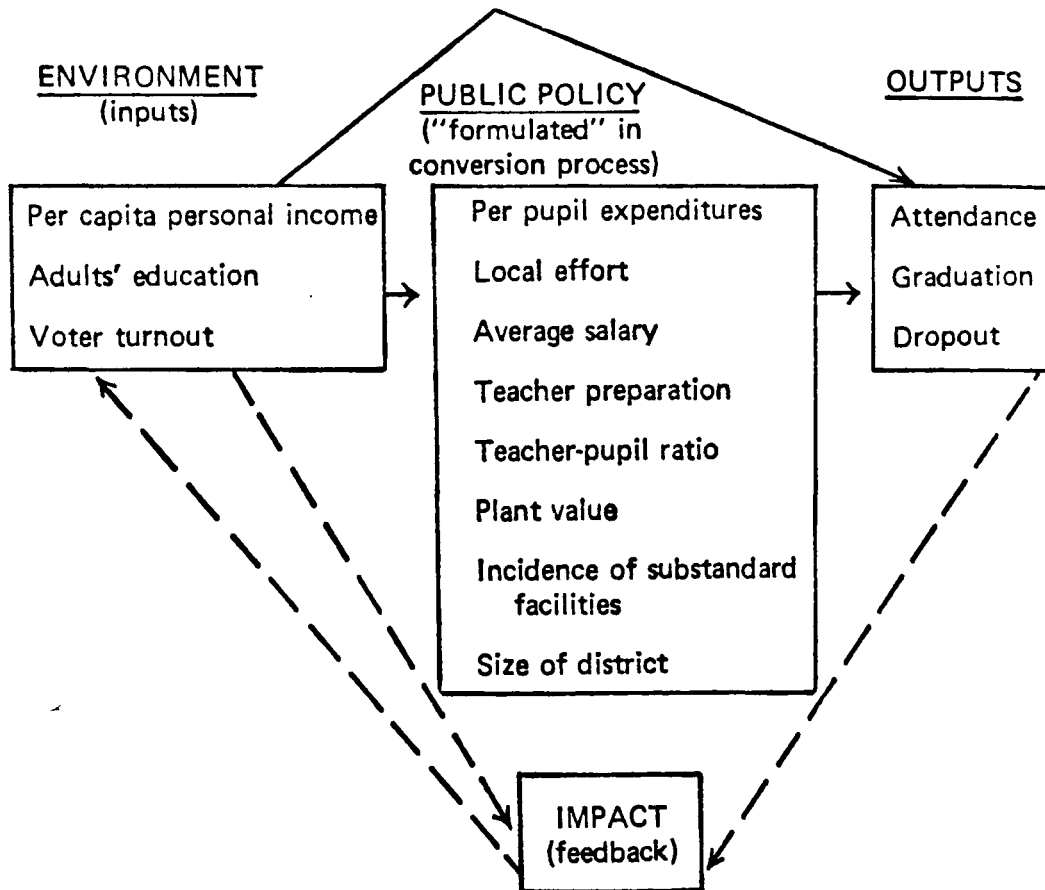
'A Dynamic Response Model of the Political System', from David Easton, A Systems Analysis of Political Life, (University of Chicago Press, 1965)



Easton's system's model, from which the other systemic approaches to policy analysis, presented here derive, is important to this study amongst others, because of its graphic and vivid depiction of the political system as a response to its total environment. It is in keeping with this that the term 'ecological urge' has been proposed in this thesis to refer to public policy as itself a response to its total environment. In the case of public policy, its immediate total environment is provided by the political system as it has been shaped by the flow of influences from its own total environment.

APPENDIX II

'Hypothesized Relationship Between Elements of the Policy Process', in Ira Sharkansky (ed.), Policy Analysis in Political Science (Markham, 1970)

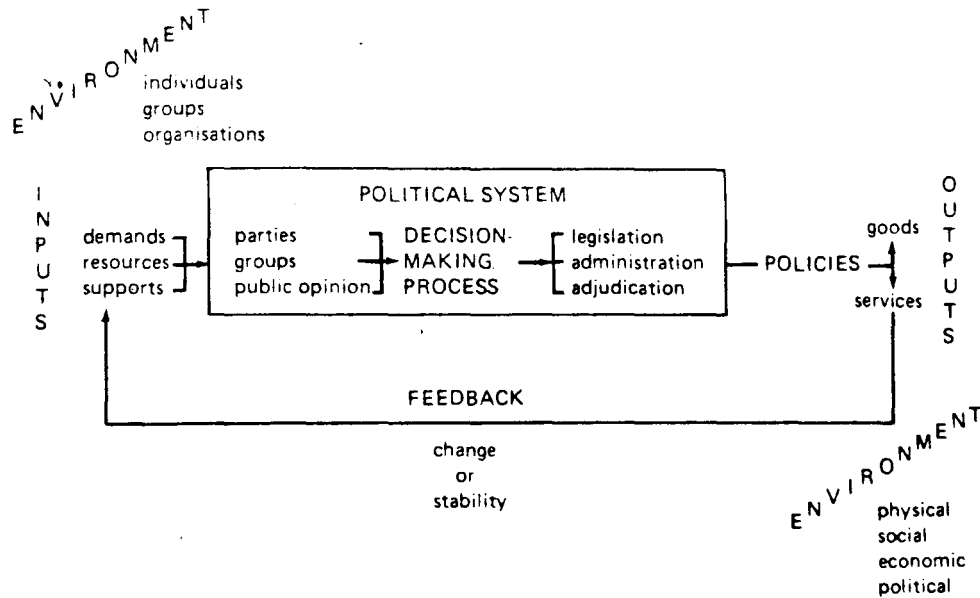


Note: Broken lines refer to relationships that are hypothesized, but not tested in this paper; terms in parentheses refer to equivalent concepts from systems theory.

This model shows how the system's approach may be applied to a single subject matter of public policy and should be illuminating to the attempt made in Chapter Seven to use the systems model to explain the configuration of forces which produces Nigeria's industrialization policy.

APPENDIX III

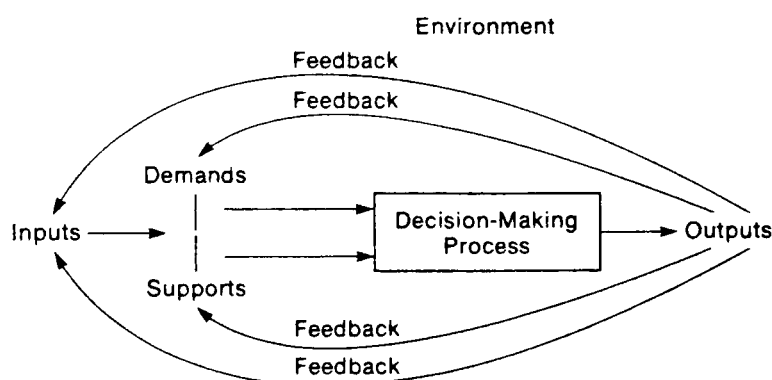
'The Political System', from Brian Smith,
Policy Making in British Government: An
Analysis of Power and Rationality
 (Martin Robertson, 1976)



The model of the political system presented by Smith has been found useful for the analysis made in this study for its emphasis on 'the decision-making process' leading to 'policies' and its distinction between 'policies' and 'outputs'. The model also usefully distinguishes between a 'stability' function and a 'change' function of the feedback mechanism of a political system.

APPENDIX IV

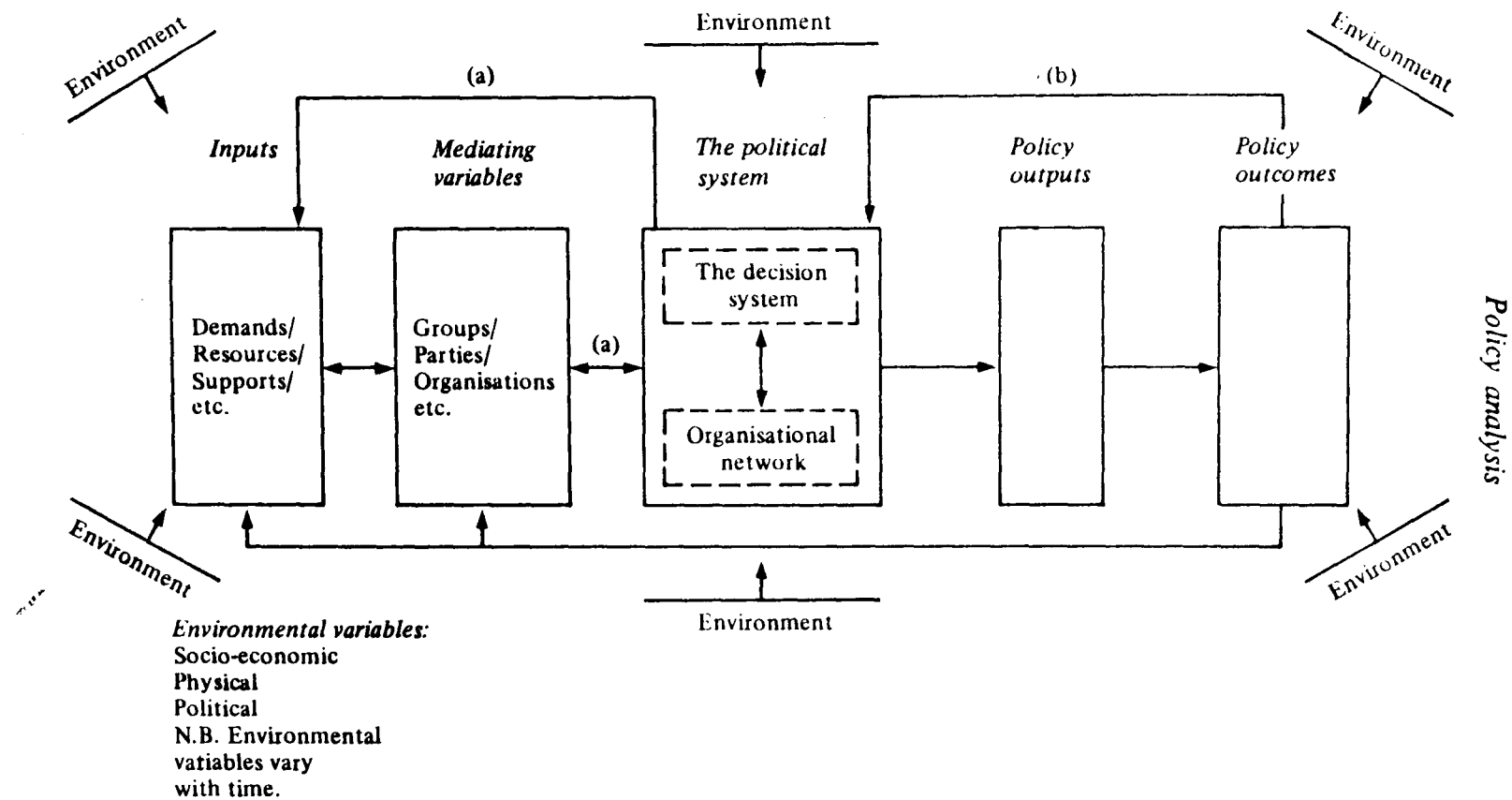
'The Systems Model of Public Policy Making', in D.A. Caputo (ed.),
The Politics of Policy Making in America :
 Five Case Studies (W.H. Freeman & Co., San
 Francisco, 1977)



Caputo focusses on the importance of feedback inputs in the decision-making process leading to policy outputs. Caputo's systemic model, it may be suggested, argues that public policy-making is dominantly incremental.

APPENDIX V

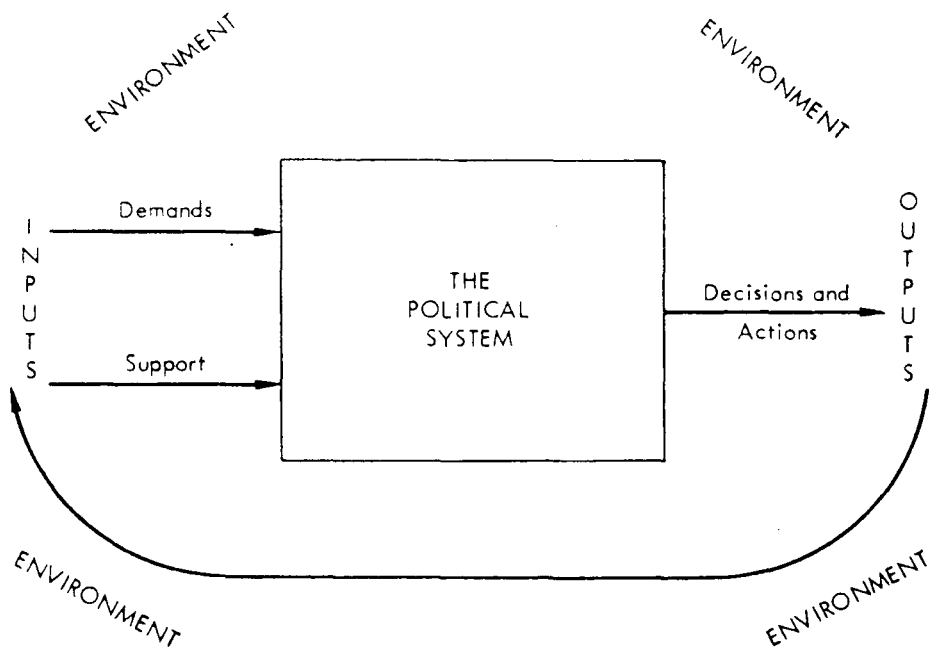
'Amended Systems Model of the Policy Process', in W.I. Jenkins,
Policy Analysis : A Political and Organizational Perspective
 (Martin Robertson & Co., London, 1978).



Jenkins model, apart from its emphasis on the environment also emphasizes the institutional dimension of the policymaking process. The model also makes a distinction between policy outputs and policy outcomes. This distinction is helpful for establishing very precisely the feedback inputs that must be injected into ongoing policies. A precise injection of information and resource feedback-inputs will greatly facilitate implementation as implementors may have little cause for going back and forth to seek further clarification or to complain about the unsuitability of new input resources.

APPENDIX VI

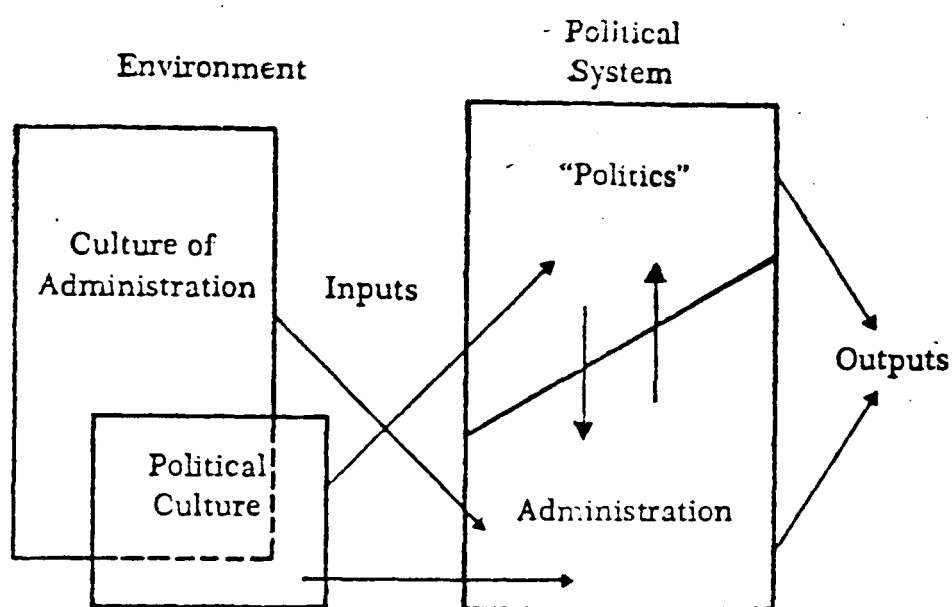
'The Systems Model', in Thomas R. Dye,
Understanding Public Policy (Prentice
 Hall, 3rd ed., 1978)



Like Easton's, Dye's systems model emphasises the impact of the environment on the political system and the decisions and actions flowing out of it as outputs.

APPENDIX VII

'Public Administration in a Systems Perspective',
 in B.G. Peters, The Politics of Bureaucracy,
 (Longmans, 1978).



Peter's systemic explanation of the relationship between politics and administration makes it possible to account for the interchangeability of roles between actors in the two 'regions' of the political system. With a feedback loop fitted into the diagram, public administration can be defined as a flow of interaction between politicians and administrators in which the two groups of actors play interchangeable roles.

APPENDIX VIIIINTERVIEWS

ADABA, P.L.O.	Administrative Manager, Jos Rolling Mills, Jos.	14/9/82
ADEBAYO, A.	Under-Secretary, Policy Planning, Federal Ministry of Industries, Lagos.	5/8/82
ADETUNJI, S.A.	Director, Department of Technology Transfer and Education, Federal Ministry of Science and Technology, Lagos.	10/3/83
AGBOLAGORITE, H.O.	Deputy Secretary, Engineering Division, Federal Ministry of Industries, Lagos.	5/8/82
AKAPO,	Assistant Director, Nigerian Association of Chambers of Commerce, Industry, Mining and Agriculture, Lagos.	16/8/82
AKINBOLA, J.A.	Deputy Director of Budgets, Office of the President, Department of Budgets.	12/8/82
AKINDELE, J.A.	Public Relations Officer, Centre for Management Development, Lagos.	16/8/82
AKPUBI, P.	Deputy Manager, Manpower Planning, Delta Steel Co. Ltd., Aladja, Warri.	30/8/82
ALEX, E.	Production Engineering Division, Anambara Motor Manufacturing Co. Ltd., Enugu.	31/8/82
AMAR, J.	Training Manager, Peugeot Automobile Nigeria Ltd., Kaduna.	13/9/82.
AWOTOYE, M.O.	Training Manager, Ajaokuta Steel Co. Ltd., Ajoakuta	2/9/82
BADAKI, F.	Personnel Manager, Leyland Nigeria Ltd., Ibadan.	27/8/82
BELLO, J.K.	Head, Industrial Research and Technology Services Division, Industrial Training Fund (Headquarters) Jos.	13/9/82
CHINEDO, J.I.	Head, Documentation Division, Project Development Institute (PRODA) Enugu.	31/8/82
DEPUTY ACCOUNTANT	Accountant General, Federal Ministry of Finance Incorporated, Lagos.	6/8/82
DIRECTOR	Federal Institute of Industrial Research, Oshodi, Lagos.	18/8/82
EDET, A.P.	Consultant, Centre for Management Development, Lagos.	24/8/82
EGBAMI, I.	Minister of State, Federal Ministry of Industries Lagos.	25/8/82
ELEAZU, U.O.	Executive Director, Manufacturers' Association of Nigeria (MAN), Lagos.	25/8/82
ELUKA, J.	Staff Manager, Anambara Motor Manufacturing Company Ltd. (ANAMMCO), Enugu.	31/8/82
FASAN, A.A.	Under-Secretary (Chemical), Federal Ministry of Industries, Lagos.	25/8/82

HADEIJA, A.S.	Administrative Manager, National Trucks Manufacturers Ltd., (NTM), Kano.	16/9/82
IHYEMBE, R.H.	Controller, Investment Promotion Department Nigerian Bank for Commerce and Industry (NBCI), Lagos.	23/8/82
IKEZUAGU, B.E.O.	Manager, Staff Development and Training, Jos Steel Rolling Company Ltd., Jos.	14/9/82
ILUGBUHI, T.O.	Director, Nigerian Association of Chambers of Commerce, Industry, Mining and Agriculture, Lagos.	16/8/82.
JOGA, I.	Personnel Manager, Steyr Nigeria Ltd., Bauchi.	15/9/82.
LAWAL, L.A.	Director, Investment Information Centre, Federal Ministry of Industries, Lagos.	19/8/82
MBA, L.	Public Relations Manager, Volkswagen of Nigeria Ltd., Lagos.	18/8/82
MACINAI, C.A.	Training Manager, National Trucks Manufacturers Ltd., (NTM), Kano.	16/9/82
MADU MANAGER	National Office of Industrial Property, Lagos. Manpower Development and Training, Ajaokuta Steel Co. Ltd., Ajaokuta.	24/8/82 6/9/82
MANAGER	Production Apprentice Training Centre, Steyr Nigeria Co. Ltd., Bauchi.	15/9/82
NWOGUGU	Assistant Director, Industry and Commerce, National Planning Office, Lagos.	28/7/82 4/8/82
OBIEFUNA, C.	Public Relations Manager, Anambara Motor Manufacturing Company Ltd. (ANAMMCO), Enugu.	31/8/82
OGUNLELA, B.	Under-Secretary (Domestic Trade), Federal Ministry of Commerce, Lagos.	25/8/82
OKUNGBOWA, G.R.	Deputy Secretary, Nigerian Investment Information and Promotion Centre, Federal Ministry of Industries, Lagos.	27/7/82 11/8/82
OLOGE, J.A.	Staff Development and Training Office, Oshogbo Steel Rolling Co. Ltd., Oshogbo.	3/9/82
ONYIA, J.C.	Company Secretary, Anambara Motor Manufacturing Co., Enugu.	31/8/82
ORAGWU	Director Planning, Programming and Evaluation, Federal Ministry of Technology, Lagos.	9/8/82 12/8/82

OSOGRI, A.A.	Personnel Manager, Katsina Steel Rolling Co. Ltd., Katsina.	17/9/82
OYEGU, J.E.K.	Permanent Secretary, Federal Ministry of Technology, Lagos.	30/7/82
OYENUGA, A.O.	Deputy Secretary (Small-Scale Industries), Federal Ministry of Industries, Lagos.	19/8/82
PERSONNEL OFFICER	Volkswagen of Nigeria Ltd., Lagos.	18/8/82
PLANINZ, A.	Training Manager, Steyr-Nigeria Ltd., Bauchi.	15/9/82
POLOMA, Y.J.	Public Relations Manager, Steyr-Nigeria Ltd., Bauchi.	15/9/82
PRINCIPAL ACCOUNTANT (INVESTMENT)	Federal Ministry of Finance Incorporated, Lagos.	5/8/82
RAO, P.J.	Training Manager, Nigerian Machine Tools, Oshogbo.	3/9/82
SEWEJE	Principal Secretary, Ministry of Steel Development, Lagos.	9/8/82
TAIWO, M.O.	Principal Planning Officer, Manpower Planning Board, Federal Ministry of National Planning, Lagos.	11/8/82
UABOI, S.A.	Assistant Director (Small-Scale Industries), Federal Ministry of Industries, Lagos.	19/8/82
UKO, D.K.	Deputy General Manager, Operational Planning and Control Delta Steel Co. Ltd., Aladja, Warri.	30/8/82

BIBLIOGRAPHY

BOOKS

- ABOYADE, O., 'Advancing Tropical African Development : A Defence of Inward-Looking Strategy', Streeten, P. (ed.) Trade Strategies for Development (Macmillan, 1973).
- ABUMERE, S.I., 'Multi-nationals and Industrialisation in a Developing Economy : the case of Nigeria', Taylor, M. & Thrift, N. (eds.), The Geography of Multinationals : Studies in the Spatial Development and Economic Consequences of Multinational Corporations (Croom Helm, 1982).
- ADEBAYO, A., Principles and Practice of Public Administration in Nigeria (Chichester : Wiley, 1981).
- ADEDEJI, A. (ed.) Indigenization of African Economies (Hutchinson, 1981).
- ADEKSON, J. 'Bayo, Nigeria in Search of a Stable Civil-Military System (Westview Press, 1981).
- AKEREDOLU-ALE, E.O., The Underdevelopment of Indigenous Entrepreneurship in Nigeria (Ibadan Univ. Press, 1975).
- ALLFN, C. & WILLIAMS, G. (eds.) Sub-Saharan Africa (Macmillan, 1982).
- ALLISON, G.T., Essence of Decision : Explaining the Cuban Missile Crisis (Little Brown, 1971).
- ALMOND, G.A. & POWELL, G.B., Jr., Comparative Politics : A Developmental Approach (Little Brown & Co., 1966).
- AMIN, S., Imperialism and Unequal Development (New York: Monthly Review Press, 1977).
- ANANABA, W., The Trade Union Movement in Nigeria (London : C. Hurst, 1969).
- ANDERSON, C.W., State Craft : An Introduction to Political Choice and Judgement (John Wiley & Sons, 1977).
- ANDERSON, J.E., Public Policy-Making (Praeger, 1975).
- " (ed.) Cases in Public Policymaking (Praeger, 1976).
- APTER, D.E., An Introduction to Political Analysis (Winthrop Publishers, 1977).
- ASHFORD, D.E. (ed.) Comparing Public Policies : New Concepts and Methods (Sage Publications, 1978).
- ASIODU, P.C., 'Industrial Policy and Incentives in Nigeria', Teriba. O. & Kayode, M.O. (eds.) Industrial Development in Nigeria (Ibadan Univ. Press, 1967).
- AXELROD, R. (ed.) Structure of Decision (Princeton, 1976).
- AYANDELE, E.A., The Educated Elite in the Nigerian Society (Ibadan Univ. Press, 1974).
- BAKER, R.F., MICHAELS, R.M. & PRESTON, E.S., Public Policy Development : Linking the Technical and Political Processes (John Wiley & Sons, Inc., N.Y., 1975).
- BALDWIN, B.G., 'Iran's Experience with Manpower Planning, Concepts, Techniques, and Lessons, in HARBISON & MYERS (eds.) Manpower and Education (McGraw-Hill Book Co., 1965).

- BARANSON, Jack, North-South Technology Transfer : Financing and Institution Building (Lomond Publications, Inc., 1981).
- " Technology and the Multi-nationals : Corporate Strategies in a Changing World Economy (Lexington Books, 1978).
- BARKAN, J.D. & OKUMU, J.J. (eds.) Politics and Public Policy in Kenya and Tanzania (Praeger Publishers, 1979).
- BAUER, et al., American Business and Public Policy (Atherton Press, 1963).
- BAUER, R. & GERGEN, K., The Study of Policy Formation (New York Free Press, 1968).
- BEHRMAN, J.N. & FISCHER, W.A., Science and Technology for Development (Oelgeschlagev, Gunn & Hain, Publishers, Cambridge Massachusetts, 1980).
- BELASCO, B.I., The Entrepreneur as Cultural Hero : Pre-adaptations in Nigerian Economic Development (Praeger Publishers, 1980).
- BENNIS, W.G., BENNE, K.D., & CHIN, R., (eds.) The Planning of Change (2nd ed.) (Holt, Rinehart and Winston, Inc., 1969).
- BERGER, Manfred, Industrialization Policies in Nigeria (Munchen : Weltfonum Verlag, 1975).
- BHAGATI, J.N. & DESAI, P., India : Planning for Industrialization (OECD Series, Oxford Univ. Press, 1970).
- BIERSTEKER, T.J., Distortation or Development? Contending Perspectives on the Multinational Corporation (MIT, 1978).
- BLACK, G., Application of Systems Analysis to Government Operations (Praeger, 1968).
- BLAIR, Calvin P., 'Nacional Financiera : Entrepreneurship in a Mixed Economy', Vernon, R. (ed.) Public Policy and Private Enterprise in Mexico (Harvard Univ. Press, 1964).
- BONGE, J.W. & COLEMAN, B.P., Concepts for Corporate Strategy : Readings in Business Policy (Macmillan, 1972).
- BOSSEL, M. (ed.), Concepts and Tools of Computer-assisted Policy Analysis (Basel, Birkhausen Verlag, 1977).
- BOWEN-JONES, H., 'Technology and the Third World' in MOUNTJOY, A.B. (ed.) The Third World : Problems and Perspectives (Macmillan Press, 1978).
- BRETTON, H.L., Power and stability in Nigeria : the politics of decolonisation (New York, 1962).
- BROWN, C.V., Nigerian Banking System (Allen Unwin, 1966).
- BRUCH, M. & WOOD, B., Public Policy in Britain (Martin Robertson, 1983).
- CALLAWAY, B., 'The Political Economy of Nigeria' in HARRIS, R. (ed.) The Political Economy of Africa (New York, Schenkman, 1975).
- CAPUTO, D.A. (ed.) The Politics of Policy Making in America : Five Case Studies (W.H. Freeman & Co., San Francisco, 1977).
- CARLEY, M., Rational Techniques in Policy Analysis (Heinemann Educational Books Ltd., 1980).
- CASSON, M., Alternatives to the Multinational Enterprise (Macmillan Press, 1979)
- CHENERY, H.B., Structural Change and Development Policy (Oxford Univ. Press, 1979)

- CODY, J., HUGHES, H., & WALL, D. (eds.), Policies for Industrial Changes in Developing Countries (Oxford Univ. Press, 1980).
- COLEMAN, D. & NIXSON, F., Economics of Change in Less Developed Countries (Phillip Alan, Oxford, 1978).
- COLLINS, L. (ed.), The Use of Models in the Social Sciences (Tavistock Publications, 1976).
- COLLINS, P., Administration for Development in Nigeria (Lagos, African Education Press, 1980).
- COLLINS, P., TURNER, T. & WILLIAMS, G., 'Capitalism and the Coup', Williams, G. (ed.) Economy and Society (1976).
- CORTES, F., PRZEWORSKI, A. & SPRAGUE, J., Systems Analysis for Social Scientists (A. Wiley-Interscience Publication, John Wiley & Sons, 1974).
- CUKOR, Gyorgy, Strategy for Industrialization in Developing Countries (London, C. Hurst & Co., 1974).
- DAHL, R.A., Who Governs : Democracy and Power in an American City (Yale Univ. Press, 1961).
- DEAN, E., Plan Implementation in Nigeria : 1962-66 (Ibadan Oxford Univ. Press, 1972).
- DEMAECHI, U.G., Nigerian Modernization : The Colonial Legacy (New York, The Third Press, 1972).
- DIEJOMOH, V.P., et al. (ed.) Industrialisation in the Economic Community of West African States (ECOWAS) (Heinemann Books, 1980).
- DOLBEARE, K.M. (ed.) Public Policy Evaluation (Sage Publications, 1975).
- DROR, Y., Ventures in the Policy Sciences (New York, Elsevier, 1971).
- " Public Policy-Making Re-examined (San Francisco: Chandler, 1968).
- " Design for Policy Science (New York: American Elsevier Publishing Co. Inc., 1971).
- DUDLEY, B.J., An Introduction to Nigerian Government and Politics (Macmillan, 1982).
- DUNNING, J. (Ed.), The Multinational Enterprise (Allen & Unwin, 1971).
- DYE, T.R., Understanding Public Policy (Prentice Hall, 3rd ed., 1978).
- " Policy Analysis : What Govts. Do, Why they do it, and What Difference it Makes (Univ. of Ala., 1976).
- " Politics, Economics and the Public (Chicago: Rand McNally, 1966).
- " 'A Model for the Analysis of Policy Outcomes' in Sharkansky (ed.) Policy Analysis in Political Science (Markhaus Publishing Co., 1970).
- DYE, T.R. & GRAY, Virginia (eds.), The Determinants of Public Policy (Lexington Books, 1980).
- DYE, T.R. & ROBEY, J.S., 'Politics versus Economics : Development of the Literature of Policy Determination', Dye, T.R. & Gray, V. (eds.) The Determinants of Public Policy (Lexington Books, 1980).
- DYE, T.R. & ZEIGLER, L.H., The Irony of Democracy : An Uncommon Introduction to American Politics (Wadsworth Publishing Company, 2nd ed., 1972).

- EASTON, D., A Systems Analysis of Political Life (University of Chicago Press, 1965).
- ECKAUS, R.S., Appropriate Technologies for Developing Countries (National Academy of Sciences, Washington D.C., 1977).
- EDEN, C. & HARRIS, J., Management & Decision Analysis (Macmillan, 1974).
- EICHER, C.K. and LIEDHOLM, C. (eds.), Growth and Development of the Nigerian Economy (Michigan State University Press, 1970).
- EMMANUEL, Arghiri, Appropriate or Underdeveloped Technology? (John Wiley & Sons, 1982).
- ENTHOVEN, A.C., 'Ten Practical Principles for Policy and Program Analysis', Zeckhauser et al. (eds.), Benefit Cost and Policy Analysis (Aldine, Chicago, 1974).
- ETZIONI, A., The Active Society (The Free Press, New York, 1968).
- EYESTONE, R., The Threads of Public Policy (Bobbs-Merrill, Indianapolis, 1971).
- " Political Economy : Politics and Policy Analysis (Markham Publishing Company, Chicago, 1972).
- EZEIFE, E., 'Case Studies : Nigeria', Adedeji, A. (ed.), Indigenization of African Economies (Hutchinson, 1981).
- FORREST, T., 'Recent developments in Nigerian industrialisation', in Fransman, M. (ed.), Industry and Accumulation in Africa (Heinemann, 1982)
- FRANK, A.G., Latin America : Underdevelopment or Revolution (Monthly Review Press, 1969).
- " Lumpenbourgeoisie : Lumpdevelopment : Dependency Class and Politics in Latin America (Monthly Review Press, 1972).
- " On Capitalist Underdevelopment (Oxford Univ. Press, Bombay, 1975).
- FREEMAN, D.M. (ed.), Foundation of Political Science : Research, Methods and Scope (The Free Press, 1977).
- FRIEDLAND, W.H., Unions, Labour and Industrial Relations in Africa (Cornell University Centre for International Studies, Ithaca, 1968).
- GEE, Sherman, Technology Transfer, Innovation and International Competitiveness (John Wiley & Sons, 1981).
- GEERTZ, C., 'Ideology as a Cultural System', Apter, D.E. (ed.), Ideology and Discontent (The Free Press, New York, 1964).
- GERMIDIS, D., Transfer of Technology by Multinational Corporations, vol.1 (OECD, 1977).
- GOULET, D., The Uncertain Promise : Value Conflicts in Technology Transfer (New York, 1977).
- GRANT, Wyn, The Political Economy of Industrial Policy (Butterworth & Co., 1982).
- GREENSTEIN, F.I. and POLSBY, N.W., Policies and Policymaking (Addison-Wesley Publishing Company, 1975).
- GRINDLE, M.E., Politics and Policy Implementation in the Third World (Princeton University Press, 1980).
- GUTKIND, P., & WATERMAN, P. (eds.), African Social Studies : A Radical Reader (Monthly Review Press, New York, 1977).

- HARBISON, F. & MYERS, C.A. (eds.) Manpower and Education (McGraw-Hill Book Co., 1965).
- HARRIS, J.R., 'On the Concept of Entrepreneurship with An Application to Nigeria', Schatz, S.P. (ed.), South of the Sahara : Development in African Economies (The McMillan Press Ltd., 1972).
- HARRIS, R., The Political Economy of Africa (Shenkman, Mass., 1975).
- HSII, Immanuel C.Y., 'The Impact of Industrialization on Higher Education in Communist China, in Harbison & Myer (eds.) Manpower and Education (McGraw-Hill Book Co., 1965).
- HAVEMAN, R.H. & HOLLENBECK, Kevin, Micro-economic Simulation Models for Public Policy Analysis, vol.I (Academic Press, Inc., 1980).
- HAWTHORNE, P.E., The Transfer of Technology (OECD, 1970).
- HECLO, Hugh, A Government of Strangers : Executive Politics in Washington (The Brookings Institution, Washington, D.C., 1977).
- HEIDENHEIMER, A.J., HECLO, H., & ADAMS, C.T., Comparative Public Policy : The Politics of Social Choice in Europe and America (Macmillan Press Ltd., 2nd ed., 1983).
- HILL, H.P., et al., Making Decisions : A Multi-disciplinary Introduction (Addison-Wesley Publishing Co., 1978, ed. 1979).
- HILLIARD, J., 'Toward an Integrated Manpower Policy for Accelerated National Development', in Yesufu (ed.) Manpower Problems and Economic Development in Nigeria (Oxford University Press, 1969).
- HIRSCHMAN, A.O., The Strategy of Economic Development (Yale Univ. Press, 1958).
- HOGWOOD, B.W. & PETERS, B.G., Policy Dynamics (Wheatsheaf Books Ltd., 1983).
- HOLLAND, S. (ed.), Beyond Capitalist Planning (Basil Blackwell, Oxford, 1979).
- HOLLAND, S.S. (ed.) Codes of Conduct for the Transfer of Technology : A Critique (Council of the Americas and Multinational Management Education, New York, 1976).
- HOLLOWAY, Charles A., Decision Making Under Uncertainty : Models and Choices (Prentice-Hall International, Inc., London, 1979).
- HOLMES, L., The Policy Process in Communist States (Sage Publications, 1981).
- HODD, N. & YOUNG, S., The Economics of Multinational Enterprise (Longman, 1979).
- HOROWITZ, I.L. & KATZ, J.E., Social Science and Public Policy in the United States (Praeger Publishers, 1975).
- HUGHES, B.B. & STRAUCH, P.A., 'The Future of Development in Nigeria and the Sahel : Projections from the World Integrated Model (WIM) in Shaw, T.M. (ed.) Alternative Futures for Africa (Westview Press, 1982).
- HUGHES, H. (ed.), Prospects for Partnership : Industrialization and Trade Policies in the 1970s (John Hopkins Univ. Press, Baltimore and London, 1973).
- HUNTINGTON, P., Political Order in Changing Societies (Yale University Press, 1968).

- IKOKU, S.G., Nigeria for Nigerians : A Study of Contemporary Nigerian Politics from a socialist point of view (Lagos, 1963).
- ILCHMAN, W. & UPHOFF, N., The Political Economy of Change (University of California Press, Berkeley, 1969).
- I.L.O., Human Resources for Industrial Development : Some Aspects of Policy and Planning (Studies and Reports New Series, No.71, Geneva, 1967).
- ISLAM, N., 'National Import Substitution and Inward-Looking Strategies : Policies of Less Developed Countries', Streeten, P. (ed.) The Trade Strategies for Development (Macmillan, 1973).
- JENKINS, W.I., Policy Analysis : A Political and Organizational Perspective (Marlin Robertson and Co., London, 1978).
- JONES, C.O., An Introduction to the Study of Public Policy (Belmont, California : Wadsworth, 1970).
- KAPLAN, A., The Conduct of Inquiry : Methodology for Behavioural Science (Intertext Books, 1973).
- KEMP, T., Industrialization in Non-Western World (Longman, 1983).
- KILBY, P., Industrialization in an Open Economy : Nigeria 1945-66 (Cambridge Univ. Press, 1969).
- " (ed.) Entrepreneurship and Economic Development (The Free Press, 1971).
- KIRK-GREEN, A. & RIMMER, D., Nigeria Since 1970 : A Political and Economic Outline (Hodder & Stoughton, 1981).
- KOLB, E.J., A Framework for Political Analysis (Prentice-Hall, 1978).
- LASSWELL, H.D., Politics, Who Gets What, When, How (McGraw-Hill, New York, 1936)
- " 'The Policy Orientation' in Lerner, D. & Lasswell, H.D. (eds.) The Policy Sciences : Recent Developments in Scope and Methods (Stanford University Press, 1951).
- " A Preview of Policy Sciences (American Elsevier, 1971).
- LAVE, L.B., Technological Change : Its Conception and Measurement (Prentice-Hall, Inc., 1966).
- LEFTWICH, A., Redefining Politics : People, resources and Power (Methuen, 1983).
- LEIPZIGER, D.M. (ed.) Basic Needs and Development (Oelgeschlager, Gunn & Hain Publishers Inc., 1981).
- LERNER, D. & LASSWELL, H.D. (eds.) The Policy Sciences : Recent Developments in Scope and Methods (Stanford University Press, 1951).
- LEVINE, R.A., Dreams and Deeds : Achievement Motivation in Nigeria (University of Chicago Press, 1966).

- LEWIS, A., Reflections on Nigeria's Economic Growth (Development Centre of OECD, 1966).
- LEWIS, S., Pakistan Industrialisation and Trade Policies (London : OECD, 1970).
- LINDBLOM, C.E., The Policy-Making Process (Prentice-Hall Inc., 1968).
- " The Intelligence of Democracy : Decision Making Through Mutual Adjustment (The Free Press, New York, 1965).
- LITTLE, I., SCITOVSKY, T., & SCOTT, M., Industry and Trade in Some Developing Countries : A Comparative Study (London : Oxford Univ. Press, 1970).
- LLOYD, P.C., The New Elites of Tropical Africa (Oxford Univ. Press, 1966).
- " Power and Independence (London, Routledge & Kegan Paul, 1974).
- LUKES, S., Power : A Radical View (Macmillan, 1974).
- LUYEMBAZI, F.L., Economic Planning and the Trade Unions in West Africa (Free Labour World, Spring 1966).
- LYDEN, F.J., SHIPMAN, G.A. & KROLL, M., Policies, Decisions and Organization (New York, Appleton-Century Crofts 1969).
- LYNN, L.E., Designing Public Policy (Goodwear Publishing, 1980).
- MacKENZIE, W.J.A., Models of Collective Decision-Making in the Social Sciences : Problems and Orientations (Hague : Mouton for UNESCO, 1968).
- MACKINTOSH, J.P., Nigerian Government and Politics (Allen & Unwin, 1966).
- MADDISON, A., Economic Progress and Policy in Developing Countries (Allen & Unwin, 1970).
- MADUNAGU, E., Problems of Socialism : the Nigerian Challenge (London, Zed, 1981).
- MAGONE, G., and QUADE, E. (eds.), Pitfalls of Analysis (London & New York : John Wiley and Sons, 1979).
- MARVICK, D. (ed.), Political Decision-Makers (Free Press of Glencoe, 1961).
- MATOSSIAN, M., 'Ideologies of Delayed Industrialisation : Some Tensions and Ambiguities', Welch, C.E., Jr. (ed.), A Reader in Comparative Political Change (Wadsworth, 1967).
- McCLELLAND, D.G., The Achieving Society (New York, 1961).
- MELSON, R. & WOLPE, H. (eds.), Nigeria : Modernization and the Politics of Communalism (East Lansing, 1971).
- MELTSNER, A., Policy Analysis in the Bureaucracy (Univ. of California Press, 1976).
- MERHAV, M., Technological Dependence, Monopoly and Growth (Pergamon Press, 1969).
- MICHELS, R., Political Parties : A Sociological Study of the Oligarchical Tendencies of Modern Democracy (Free Press, 1962).
- MITCHELL, W.C. & J.M., Political Analysis and Public Policy (Chicago : Rand-McNally & Co., 1969).
- MORAWETZ, D., Twenty-Five Years of Development (Baltimore : John Hopkins Univ. Press, 1977).
- MURRAY, D.J., The Work of Administration in Nigeria : Case Studies (London, Hutchinson, 1969).
- " (ed.), Studies in Nigerian Administration (London, Hutchinson, 1970).

- NAFZIGER, E.W., 'The Market for Nigerian Entrepreneurs', Schatz, S.P. (ed.), South of the Sahara : Development in African Economies (The Mcmillan Press, 1972).
- " African Capitalism : A Cast Study in Nigerian Entrepreneurship (C.A. Hoover Institute Press, 1977).
- NAGEL, S.S. (ed.), Policy Studies in America and Elsewhere (D.C. Heath & Co., 1975).
- NDUKA, O., 'The Rationality of the Rich in Nigeria' in Gutkind and Watermann (eds.) African Social Studies : A Radical Reader (New York, Monthly Review Press, 1977, 343-350).
- NELLIS, J.R., A Theory of Ideology : The Tanzanian Example (Oxford University Press, 1972).
- NGOSU, H.N. (ed.), Problems of Nigerian Administration : A Book of Readings (Enugu, Fourth Dimension, 1980).
- NIMMO, D.D. & SANDERS, K.R. (eds.), Handbook of Political Communication (Sage Publications, 1981).
- NZIMIRO, I., 'The Political and Social Implications of Multi-National Corporations in Nigeria', in Widstrand, C. (ed.), Multinational Firms in Africa (Uppsala, 1975).
- OGUNSHEYE, A., 'Manpower Problems in the Context of Economic Planning', in Yesufu, T.M. (ed.), Manpower Problems and Economic Development in Nigeria (Oxford University Press, 1969).
- OLORUNSOLA, V.A., Soldiers and Power : The Development Performance of the Nigerian Military Regime (Hoover Institution Press, 1977).
- ONI, Ola & ONIMODE, B., Economic Development of Nigeria - The Socialist Alternative (Ibadan : The Nigerian Academy of Arts, Sciences and Technology, 1975).
-
- ONIMODE, B., Imperialism and Underdevelopment in Nigeria : the dialectics of mass poverty (Zed Press, 1982).
-
- ONOH, J.K., Strategic Approaches to Crucial Policies in economic Development : A Macro link study in capital formation, technology and money (Rotterdam Univ. Press, 1972).
- " (ed.), Foundation of Nigeria's Financial Infrastructure (London : Croom Helm, 1980).
- ONYEMELUKWE, C.C., Problems of Industrial Planning and Management in Nigeria (Longmans, Green & Co., 1966).
- OSOBA, S.O., 'The Nigerian Power Elite' in Gutkind, P.C.W. & Waterman, P., African Social Studies : A Radical Reader (Heinemann, 1976).
- OTITE, O. (ed.), Themes in African Social and Political Thought (New York, Africana Publishing Co., 1978).
- OYEDIRAN, O. (ed.) Nigerian Government and Politics under Military Rule, 1968-1979 (London, Macmillan, 1979).
- OYEJIDE, T.A., Tariff Policy and Industrialization in Nigeria (Ibadan Univ. Press, 1973).
- PAINE, F.T. & NAUMES, W., Organizational Strategy and Policy : Text Cases and Incidents (W.B. Saunders Company, 1975).
- PANTER-BRICK, S.K. (ed.), Soldiers and Oil : The Military Transformation of Nigeria (London, Frank Cass, 1978).

- PAPANEK, G.F., Development Policy - Theory and Practice (Harvard Univ. Press, 1968).
- PARRY, G. (ed.), Participation in Politics (Manchester, 1972).
- PEACE, A., 'Industrial Protest in Nigeria', DeKadt, E. & Williams, W.(eds.) Sociology and Development (Tavistock Publications, 1974).
- PEACE, 'Towards a Nigerian Working Class' in Sandbrook & Cohen, The Development of an African Working-Class - Studies in Class Formation and Action (Longmans, 1975).
- PEARSON, S.R., Petroleum and the Nigerian Economy (Stanford Univ.Press, 1970).
- PEIL, M., Nigerian Politics : the People's View (London, Cassell, 1976).
- PETERS, B.G., The Politics of Bureaucracy : A comparative Perspective (Longmans, 1978).
- POLLITT, C. et al. (eds.), Public Policy in Theory and Practice : A Reader (The Open University, 1979).
- POST, K.W.J., The Nigerian Federal Election of 1959 : Politics and Administration in a Developing Political System (Oxford University Press, 1963).
- POST, K. & VICKERS, M., Structure and Conflict in Nigeria 1960-66 (Heinemann, 1973).
- PRESSMAN, J.L., & WILDAVSKY, A. (2nd ed.), Implementation (University of California Press, 1979).
- RANNEY, A. (ed.), Political Science and Public Policy (Chicago : Markham Publishing Co., 1968).
- RENNINGER, J.P. 'The Future of Economic Co-operation in Schemes in Africa, with Special Reference to ECOWAS, in Shaw, T.M. (ed.) Alternative Futures for Africa (Westview Press, 1982).
- RICHARDSON, J. (ed.), Integrated Technology Transfer (Lomond Publications, 1979).
- RIGGS, F.W., 'Bureaucracy and Political Development : A Paradoxical View' in La Palombara (ed.), Bureaucracy and Political Development (Princeton Univ. Press, 1963).
- " Administration in Developing Countries : The Theory of Prismatic Society (Boston : Houghton, Mifflin, 1964).
- ROBIN, R. & COHEN, R., Labour Politics in Nigeria (Heinemann, 1974).
- ROSE, R., 'Comparative Public Policy' in Nagel, S.S. (ed.) Policy Studies in America and Elsewhere (London, Lexington, 1975).
- ROSE, R. (ed.), The Dynamics of Public Policy : A Comparative Analysis (Sage Publications, 1976).
- ROSENAU, J., 'Moral Fervor, Systemic Analysis, and Scientific Consciousness in Foreign Policy Research' in Ranney (ed.) Political Science and Public Policy (Markham Publishing Co., 1968).
- ROTHCHILD, D. and CURRY, R.L.Jr., Scarcity Choice and Public Policy in Middle Africa (Univ. of California Press, 1978).

- SALTER, W.E.G., Productivity and Technical Change (2nd ed.) (Cambridge University Press, 1966).
- SANDBROOK, R. & COHEN, R., The Development of an African Working Class - Studies in Class Formation and Action (London : Longmans, 1975).
- SCHATZL, L., Industrialization in Nigeria : A Spatial Analysis (Weltforum-Verlag, Munchen, 1973).
- SCHATZ, S.P., South of the Sahara : Development in African Economies (The MacMillan Press Ltd., 1972).
- " (ed.), Nigerian Capitalism (Univ. of California Press, 1977).
- SCHURMANN, F., Ideology and Organization in Communist China (Univ. of California Press, 1968).
- SEIDMAN, A., Planning for Development in Sub-Saharan Africa (Praeger Publishers, 1974).
- SELF, P., Econocrats and The Policy Process : The Politics and Philosophy of Cost-Benefit Analysis (London : Macmillan, 1975).
- " Administrative Theories and Politics, 2nd. ed. (Allen & Unwin, 1977).
- SEN, A., Employment, Technology and Development (Oxford : Clarendon Press, 1975)
- SHARKANSKY, I., Public Administration : Policy Making in Government Agencies (Chicago : Markham, 1970).
- " (ed.), Policy Analysis in Political Science (Chicago, Markham, 1970).
- SHIVIJI, I.G., The Silent Class Struggle (Tanzania Publishing House, 1974).
- SIDJANSKI, D. (ed.), Political Decision-Making Process : Studies in National, Comparative and International Politics (Elsevier Scientific Publishing Co., 1973).
- ✓ SIMMONS, R.H. and DVORIN, E.P., Public Administration : Values, Policy and Change (Alfred Publishing Co., 1977).
- ✓ SKLAR, R.L., Nigerian Political Parties : Power in An Emergent African Nation (Princeton Univ. Press, 1963).
- SMITH III, C.H., Japanese Technology Transfer to Brazil (UMI Research Press, 198
- ✓ SMITH, B., Policy Making in British Government: An Analysis of Power and Rationality (Martin Robertson, 1976).
- SOKOLSKI, A., The Establishment of Manufacturing in Nigeria (Praeger, 1965).
- SPENCER, D.L., Technology Gap in Perspective : Strategy of international technology transfer (New York, 1970).
- SPENCER, D.L. and WORONIAK, A. (eds.), The Transfer of Technology to Developing Countries (Praeger, 1967).
- STEINBRUNER, J.D., The Cybernetic Theory of Decision (Princeton, 1974).
- STEWART, Francis, International Transfer of Technology : Issues and Policy Options (World Bank Working Paper No. 344, July 1979).
- " Technology and Underdev't (2 editions) (Macmillan Press Ltd., 1978).
- STONECASH, J., 'Politics, Wealth and Public Policy : The Significance of Political Systems', Dye, T.R. & Gray (eds.) The Determinants of Public Policy (Lexington Books, 1980).
- STREETEN, P., Development Perspectives (Macmillan Press Ltd., 1981).

- SUTCLIFFE, R.B., 'Imperialism and Industrialization in the Third World', in Owen, E.R.J. & Sutcliffe R.B. (eds.) Studies in the Theory of Imperialism, (Longmans, 1972)
- SWERDLOW, I., The Public Administration of Economic Development (Praeger Publishers, N.Y., 1975).
- SYMTHE, H.H. & SYMTHE, M.M., The New Nigerian Elite (Stanford Press, 1962).
- TEECE, D.J., The Multinational Corporation and the Resource Cost of International Technology Transfer (Ballinger Publishing Co. 1976).
- TERIBA, O. & KAYODE, M.O. (eds.), Industrial Development in Nigeria (Ibadan Univ. Press, 1977).
- THOMAS, B.D., Capital Accumulation and Technology Transfer : A Comparative Analysis of Nigerian Manufacturing Industries (Praeger, 1975).
- TIMS, Wouter, Nigeria : Options for Long-Term Development, Report of a mission sent to Nigeria by the World Bank (John Hopkins Univ. Press, 1974).
- TURNER, T., 'Nigeria : imperialism, oil technology and the comprador state', in Nore, P. & Turner, T. (eds.), Oil and Class Struggle (London : Zed, 1980).
- UNCTAD, Major Issues in the Transfer of Technology to Developing Countries : A Case Study of Ethiopia (1974).
- " Energy Supplies for Developing Countries - Issues in Transfer and Development of Technology (Geneva : TD/B/C.6/31, 1978).
- UNESCO, Transnational Corporations in World Development : A Re-examination (UN, E/C.10/38, 1978).
- UNIDO, Industrialization of Developing Countries : Problems and Prospects, Technical Co-operation in Industry (Monographs on Industrial Dev't, No.21, New York, 1969).
- " Industrialization of Developing Countries : Problems and Prospects, Engineering Industries (Monographs on Industrial Dev't No.4, New York, 1969).
- " Industrialization of Developing Countries : Problems and Prospects, Industrial Research (Monographs on Industrial Dev't, New York, 1969).
- " Industrialization of Developing Countries : Problems and Prospects, Administrative Machinery (Monographs on Industrial Dev't, New York, 1969).
- " Industrialization of Developing Countries : Problems and Prospects, Iron and Steel Industry (Monographs on Industrial Dev't, New York, 1969).
- " Industrialization of Developing Countries : Problems and Prospects, Manpower for Industry (Monographs on Industrial Dev't, New York, 1969).
- " Industrialization of Developing Countries : Problems and Prospects, Promotion of Export-Oriented Industries (Monographs on Industrial Dev't, New York, 1969).
- " Training of Economic Administrators for Industrial Development (Training for Industry Series, No.1, New York, 1969).
- " Industry and Development : Special Issue for the Third General Conference of UNIDO (No.3, New York, 1979).
- " Appropriate Industrial Technology for Basic Industries (Monographs on Appropriate Industrial Technology, No. 13, New York, 1981).

- UNITED NATIONS, Processes and Problems of Industrialization and Underdeveloped Countries E/2670 ST/ECA99 (1954).
- UPHOFF, N.T. & ILCHMAN, W.F. (eds.), The Political Economy of Development (University of California Press, 1972).
- VAITSOS, C.V., 'Bargaining and the Distribution of Returns in the Purchase of Technology by Developing Countries', in Bernstein, H. (ed.), Underdevelopment and Development : Third World Today (Penguin Books, 1976).
- VARMA, B.N., The Sociology and Politics of Development (Routledge and Kegan, 1980).
- VERNON, R. (ed.), Public Policy and Private Enterprise in Mexico (Harvard, 1964).
- WADE, L.L., The Elements of Public Policy (Columbus, Ohio: Charles Merrill, 1972).
- WADE, L.L. and CURREY, R.L., A Logic of Public Policy (Belmont, California : Wadsworth, 1970).
- WALDO, D., (ed.), Public Administration in a Time of Turbulence (Chandler Publishing Co., 1971).
- WATERMAN, P., 'Conservatism Amongst Nigerian Workers' in Williams, G., (ed.), Nigeria : Economy and Society (Rex Collings, 1976).
- WILDAVSKY, A., Speaking Truth to Power : The Art and Craft of Policy Analysis (Boston, Little Brown, 1979).
- WILLIAMS, G., 'Class Relations in a neo-colony : the case of Nigeria' in Gutkind and Waterman (eds.), African Social Studies : A Radical Reader (Heinemann, 1977).
- " State and Society in Nigeria (Afrografika Publishers, 1980).
- " (ed.) Nigeria : Economy and Society (Rex Collings, 1976).
- WILLIAMS, B.A., 'Organizational Determinants of Policy Change', in Dye, T.R. & Gray, V., The Determinants of Public Policy (Lexington Books, 1980).
- WISEMAN, H.V., Politics in Everyday Life (Oxford, Basil Blackwell, 1966).
- WODDIS, J., New Theories of Revolution (Lawrence and Wishart, 1972).
- YANSANE, A.Y. (ed.), Decolonization and Dependency : Problems of Development of African Societies (Greenwood Press, 1980).
- YESUFU, T.M. (ed.), Manpower Problems and Economic Development in Nigeria (Oxford University Press, 1969).
- " 'Forecasting Nigeria's Manpower Needs, 1963-1968 : A Note on Methodology', in Yesufu, (ed.), Manpower Problems and Economic Development in Nigeria (Oxford University Press, 1969).
- YOUNG, S. & SUMMER(Jr.) C.E., Management : A Systems Analysis (Scott, Foresman & Co., 1966).

ARTICLES

- AHMAD, J., 'Import Substitution - A Survey of Policy Issues', The Developing Economies, Vol. XVI, No.4 (Dec. 1978), pp.355-372.
- AHMED, J., 'Import Substitution and Structural Change in India's Manufacturing Industry', The Journal of Development Studies (April, 1968).
- AINA, S., 'Bureaucratic Corruption in Nigeria : The Continuing Search for Causes and Cures', International Review of Administrative Sciences, Vol.48 (1982), pp.70-76.
- AKEREDOLU-ALE, E.O., 'The "Competitive Threshold" hypothesis and Nigeria's Industrialization Process', 14 Nigerian Journal of Social and Economic Studies (1974), 116.
- ✓ ALEXANDER, E.R., 'Design in Decision-Making Process', Policy Sciences 14 (1982), 279-292.
- ALLEN, Rob, 'Agriculture and Industry : A Case Study of Capitalist Failure in Northern Nigeria', Modern African Studies, Vol.18, No.3 (1980), 427-41.
- ALLEN, V.L. 'The Meaning of the Working Class in Africa', Journal of Modern African Studies, 10(2) (1972).
- ALEC, R., 'Nigerian Workers', Occupational Psychology, Vol.41, No.4 (Oct. 1967).
- ✓ ALLISON, G.T., and HALPERIN, H.M., 'Bureaucratic Politics : A Paradigm and Some Policy Implications', World Politics Supplement, Vol. XXIV (Spring 1972), pp.40-79.
- ✓ ANDERSON, C.W., 'The Place of Principles in Policy Analysis', American Political Science Review (Sept. 1979), 711-23.
- ✓ ANDRIOLE, S.J., 'Decision Process Models and the Needs of Policy Makers : Thoughts on the Foreign Policy Interface', Policy Sciences, Vol.11 No. 1 (August 1979), 19-37.
- ANGLIN, D.G., 'Nigeria : political non-alignment and economic alightment', Journal of Modern African Studies, 2 (1964), 247-263.
- ARROW, K.J., 'The Economic Implication of Learning by Doing', Review of Economic Studies, 29 (June 1962), pp.155-173.
- ✓ AXELROD, R., 'The Place of Policy Analysis in Political Science : Five Perspectives', American Journal of Political Science, Vol.6 No.1 (March 1975).
- BAER, W. and MANESCHI, A., 'Import-Substitution, Stagnation and Structural Change : An Interpretation of Brazilian Case', Journal of Developing Areas 5 (Jan. 1979), 177-192.
- ✓ BAILEY, J.J. & O'CONNOR, R.J., 'Operationalizing Incrementalism : Measuring the Muddles', Public Administration Review, Vol. 35 (Jan/Feb. 1975) 60-66.
- BAJUSZ, W.D., 'Advanced Technology and Public Policy : Multinational Weapons Acquisition', Policy Sciences 11 (1980), 263-284.
- BARTHOLOMEW, D.J., HOPES, R.A.F., & SMITH, A.R., 'Manpower Planning in the Face of Uncertainty', Personnel Review, Vol.5, No.3 (Summer 1976).

- BAUMER, J.M., 'Why not Stop Transfer of Technology?' Intereconomics, No. 7/8 (1978), pp.179-183.
- BENDIX, R., 'Industrialization Ideologies and Social Structure', American Sociological Review, XXIV, No.5 (Oct., 1959), pp.613-23.
- BENNETT, D.C., & SHARPE, K.E., 'Agenda Setting and Bargaining Power : The Mexican State Versus Transnational Automobile Corporations', World Politics Vol. XXXII, No. 1 (Oct. 1979), pp.57-89.
- ✓ BERMAN, P., 'The Study of Macro- and Micro-Implementation', Public Policy, Vol. XXVI, No. 2(Spring 1978), pp.157-184.
- BESHERS, J.M., 'Models and Theory Construction', American Sociological Review, Vol. 22 No. 1 (Feb., 1957), pp.32-38.
- ✓ BREWER, G.D., 'Where the Twain Meet : Reconciling Science and Politics in Analysis', Policy Sciences 13 (1981), 269-279.
- ✓ BRICKMAN, R., 'Comparative Approaches to R & D Policy Coordination', Policy Sciences, Vol. 11, No.1 (August, 1979), 73-91.
- BRUTON, H.J., 'The Import-Substitution Strategy of Economic Development : A Survey', Pakistan Development Review, Vol. 10 (1970).
- CHEN, E., 'The Role of MNCs in the Production and Transfer of Technology in Host Countries', Development and Change, Vol. 12, No.4 (Oct. 1981), pp.579-599.
- ✓ CHENERY, H.B., 'The Role of Industrialization in Development Programmes', American Economic Review, Papers and Proceedings, May 1955.
- ✓ CLAPHAM, W.B.Jr., PESTEL, R.F., & ARNASZUS, H., 'On the Scenario Approach to Simulation Modelling for Complex Policy Assessment and Design', Policy Sciences, Vol. 11, No.2 (Nov. 1979), 157-186.
- ✓ CLARK, Norman G., 'Technology Planning and Policy in Economic Development', Research for Development, Vol. 1, No. 1 (Jan. 1981).
- CONNOR, W., 'Nation-Building or Nation-Destroying?', World Politics, Vol.24 No. 3 (1972).
- ✓ COPPOCK, R., 'Decision-Making When Public Opinion Matters', Policy Sciences, Vol. 8 (1977), pp.135-146.
- ✓ CROUCH, M., 'Transport Policy in Britain and the Soviet Union : A Political Paradox', Policy and Politics, Vol. 9, No. 4(1981), 439-54.
- CUKOR, Gyorgy, 'The Role of Import Substitution and Export Development in the Industrialization of Developing Countries', Conference on 'The Implementation Problems of Economic Development Plans, Centre for Afro-Asian Research, Budapest, 1969.
- DAVIES, B., 'Social Service Studies and the Explanation of Policy Outcomes', Policy and Politics, Vol.5, No.3 (March 1977), pp.41-60.
- DAWSON, S., Organisational Analysis and the Study of Policy Formulation and Implementation, Public Administration Bulletin (Dec. 1979), 52-66.
- DeLEON, P., 'Technology and Public Policy : Whither Side of Janus?', Policy Sciences 11, No.3 (1980), 235-240.
- " 'Comparative Technology and Public Policy : The Development of the Nuclear Power Reactor in Six Nations', Policy Sciences, 11 No.3 (1980), 285-307.

- ✓ DENNY, B.C., 'Science and Public Policy : A Symposium', Public Administration Review, 27 (1967), pp.95-133.
- DIAMOND, L., 'Cleavage, Conflict and Anxiety in the Second Nigerian Republic', Journal of Modern African Studies, 20, 4 (1982), pp.629-68.
- ✓ DILLON, G.M., 'Policy and Dramaturgy : A Critique of Current Conception of Policy Making', Policy and Politics, Vol.5, No.1 (Sept. 1976), pp.47-62.
- ✗ DROR, Y., 'Policy Analyst : A New Professional Role in Government', Public Administration Review, Vol. 27 (1967), pp.197-203.
- ✓ " 'The Challenge of Policy Sciences', Policy Studies Journal, Vol.1 (Autumn, 1972).
- ✓ " 'Muddling Through - "Science" or Inertia?', Public Administration Review, XXIV : 3 (1964).
- DRYZEK, J., 'Policy Analysis as a Hermeneutic Activity', Policy Sciences, 14 (1982), 309-329.
- ✗ DUDLEY, B.J., 'The Military and Development', Nigerian Journal of Economic and Social Studies, XIII No. 2 (July 1971), 163-74.
- ✓ DYE, T.R., 'Politics versus Economics : The Development of the Literature on Policy Determination', Policy Studies Journal (Summer, 1979), 652-662.
- ECLA, 'The Growth and Decline of Import Substitution in Brazil', Economic Bulletin for Latin America, Vol. IX, No. 1 (March 1964), 1-59.
- EKER, V., 'On the Origin of Corruption : Irregular Incentives in Nigeria', Modern African Studies, Vol. 19, No.1 (1981), 173-82.
- EKONG, E.E. 'The Fictitiveness of Class Analysis in Contemporary Nigerian Society', West African Journal of Sociology and Political Science, Vol. 2 (1976-77), 116-28.
- ✓ ELMORE, R.F., 'Organizational Models of Social Program Implementation', Public Policy, Vol. XXVI, No.2 (Spring 1978), pp.185-228.
- FAUST, Gerald, 'Small Industries Credit Scheme in Northern Nigeria : An Analysis of Operational and Lending Patterns', Nigerian Journal of Economic and Social Studies, XI, No. 2(July 1969), 205-27.
- ✓ FLODEN, R.E. & WEINER, S.S., 'Rationality to Ritual : The Multiple Roles of Evaluation in Governmental Processes', Policy Sciences, 9 (1978), 9-18.
- FORTNER, R.S., 'Strategies for Self-immolation: The Third World and the transfer of Advanced Technologies', Inter-American Economic Affairs, Vol. 31, No. 1 (1977), pp.25-50.
- ✓ FOSTER, J.L., 'An Advocate Role for Policy Analysis', Policy Studies Journal, 8(Summer, 1980).
- FRANK, L.P., 'Ideological Competition in Nigeria : Urban populism v. elite nationalism', Journal of Modern African Studies, 17, 3 (1979), 433-52.

- ✓ GERSHUNY, J.I., 'Policymaking Rationality : A Reformulation', Policy Sciences, Vol. 9, No. 3 (June 1978), 295-316.
- ✓ GIRVAN, N., 'Technology : A White Magic for Africa', Africa Development, Vol. 2, No. 2 (1977).
- GOLD, K.A., 'Managing for Success : A Comparison of the Private and Public Sectors', Public Administration Review, Vol. 42, No. 6 (Nov./ Dec. 1982), 568-75.
- ✓ GOODIN, R., and WALDNER, I., 'Thinking big, thinking small, and not thinking at all', Public Policy (Winter 1979), 1-24.
- GOULET, D., 'The Suppliers and Purchasers of Technology : A Conflict of Interest', International Development Review, Vol. 18, No.3 (1976), pp.14-20.
- ✓ GRINDLE, M.S., 'Anticipating Failure : The Implementation of Rural Development Programs', Public Policy, Volume 29, No.1 (Winter 1981), pp.51-74.
- HAKAM, A.N., 'The Motivation to Invest and the Locational Pattern of Foreign Private Industrial Investment in Nigeria', Nigerian Journal of Economic and Social Studies, VIII, No.1, (March 1966), 49-65.
- HARLAN DAVIS, L., 'Appropriate Technology : An explanation and interpretation of its role in Latin America', Inter-American Economic Affairs, 32, No. 2 (1978), pp.51-66.
- ✓ HAWLEY, K.E. & NICHOLS, M.L., 'A Contextual Approach to Modeling the Decision to Participate in a "Political" Issue', Administrative Science Quarterly, Vol. 27 (1982), 105-19.
- HEAD, J.G., 'Public Goods and Public Policy', Public Finance, 17 (Fall, 1962), 197-221.
- ✓ HEATWOLE, C.G., KELLER, L.F., & WAMSLEY, G.L., 'Action Research and Public Policy Analysis : Sharpening the Political Perspectives of Public Policy Research', Western Political Quarterly (Dec. 1976), 597-609.
- ✱ HECKLO, Hugh, 'Policy Analysis : A Review Article', British Journal of Political Science, 2 (1972), pp.83-108.
- HELLEINER, G.K., 'The Role of MNC's in the Less Developed Countries' Trade in Technology', World Development, Vol. 3, No.4 (1975), pp.161-189.
- HICKS, N. & STREETEN, P., 'Indicators of Development : The Search for Basic Needs Yardstick', World Development, Vol. 7, No. 6 (1977), pp.567-580.
- HIRSCHMAN, A.O., 'The Political Economy of Import-Substituting Industrialization in Latin America', The Quarterly Journal of Economics, Vol. LXXXII (Feb. 1968), No. 1, pp.1-32.
- ✓ HOGWOOD, B.W. & PETERS, B.G., 'The Dynamics of Policy Change : Policy Succession', Policy Sciences, 14 (1982), 225-245.
- HOOGVELT, A., 'Indigenisation and foreign capital : Industrialisation in Nigeria', Review of African Political Economy, Vol. 14 (1979).
- ✓ HOOLE, F.W., HANDLEY, D.H. & OSTROM, C.W., Jr. 'Policy-making Models, Budgets and International Organizations', Journal of Politics (Aug. 1979), 923-932.
- HORELICK, A.L. 'The Cuban Missile Crisis : An Analysis of Soviet Calculations and Behaviour', World Politics, Vol. XVI, No. 3 (April 1964), pp.363-389.

- X HUGHES, H. , 'Industrialization and Development : A Stocktaking', Industry and Development, No. 2 (1979).
- HUTTON, John, 'Management Education in Nigeria', Management in Nigeria, Vol. 9, No. 4 (Jan-Feb. 1974).
- IKOKU, E.A., 'Is the Transfer of Technology Possible?', Nigerian Journal of Development Studies, Vol. 1, No. 1 (April 1981).
- ✓ JAMES, Jeffrey, 'Appropriate Technologies and Inappropriate Policy Instruments ', Development and Change, Vol. 11, No. 1 (Jan. 1980), 65-75.
- JAWANDO, G.A., 'The Management Challenge of Indigenization', Management in Nigeria, Vol. 9, No. 4 (Jan-Feb, 1974).
- " 'Developing Managers of Tomorrow', Management in Nigeria, Vol. 9, No. 6 (May-June, 1974).
- JOHNSON, H.G., 'Tariffs and Economic Development : Some Theoretical Issues', The Journal of Development Studies, Vol. 1, No. 1 (Oct. 1964), pp.3-30.
- ✓ JONES, S., EDEN, C., & SIMS, D., 'Subjectivity and Organisational Politics in Policy Analysis', Policy and Politics, Vol.7, No. 2 (1979) 145-163.
- JOSEPH, R., 'Affluence and Underdevelopment : the Nigerian Experience', Journal of Modern African Studies, 16, 2 (1978), 221-39.
- " 'Political Parties and Ideology', Review of African Political Economy, 13 (1978), 78-90.
- KALDOR, N., & MIRRLEES, J.A., 'A New Model of Economic Growth', Review of Economic Studies, 29 (1961-62), pp.174-190.
- KARIN, B., 'Popular Reactions to the Petro-Naira', Journal of Modern African Studies, 20, 3 (1982), pp.431-50.
- KHAN, A.R., 'Import Substitution, Export Expansion and Consumption Liberalization : A Preliminary Report', Pakistan Development Review, Vol. 3 (1963).
- KLOMAN, E.H. (ed.), 'Public Participation in Technology Assessment', (symposium), Public Administration Review, Vol. 35 (Jan/Feb. 1975), 67-81.
- KODJO, S., 'The Problem of the Environmental Neutrality of Technology and Its Policy Implications', Nigerian Journal of Development Studies, Vol. 1, No. 1 (April, 1981).
- ✓ KRAMER, F.A., 'Policy Analysis as Ideology', Public Administration Review (Sept-Oct. 1975), pp.509-17.
- ✓ LAKSHMANAN, T.R., 'A Systems Model of Rural Development', World Development, Vol. 10, No. 10, pp.885-898 (1982).
- ✓ LANDAU, M., 'The Proper Domain of Policy Analysis', American Journal of Political Science, Vol. 21 (May 1977).
- LA PALOMBARA, J.S., & BLANK, S., 'Multinational Corporations and Developing Countries', Journal of International Affairs, Vol. 34, No.1 (1980).
- LAWAL, A., 'The Theory and Practice of Community Development : The Case of Sokoto State'. A Paper presented at the National Conference on Local Government sponsored by the Department of Political Science, University of Nigeria, Nsukka, 28th-30th June, 1980.

- LEDDA, R., 'Social human and political struggle', International Socialist Journal, 14, 22 (Aug. 1967), pp.574-5.
- LEONARD, J.H., 'Multinational Corporations and Politics in Developing Countries', World Politics, Vol. XXXII, No. 1 (Oct. 1979).
- ✓ LEWIN, A.Y. & SHAKUN, M.F., 'Situational Normativism : A Descriptive-Normative Approach to Decision-Making and Policy Science', Policy Sciences (March 1976), pp.1-10.
- LEWIS, A., 'Aspects of Industrialization', Nigerian Trade Journal, II, No.4 (October-Dec.1954), 11-12.
- LINDBLOM, C.E., 'The Science of Muddling Through', Public Administration Review, Vol. XIX, No. 2 (Spring 1959), pp.79-88.
- ✗ LOWI, T.A., 'American Business, Public Policy, Case Studies and Political Theory', World Politics, 16 (1964), 677-715.
- " 'Decision Making vs. Public Policy : Towards an Antidote for Technocracy', Public Administration Review, 30 (1970), 314-25.
- " 'Four Systems of Policy, Politics and Choice', Public Administration Review, 32 (1972), 298-310.
- ✓ LUFT, H.S., 'Benefit-Cost Analysis and Public Policy Implementation : From Normative to Positive Analysis', Public Policy, Vol. XXIV, No.4 (Fall 1976), pp.437-462.
- MACARIO, Santiage, 'Protectionism and Industrialization in Latin America', Economic Bulletin for Latin America, Vol. IX, No. 1 (March 1964), 61-102.
- MALENBAUN, W. & STOPLER, W., 'Political Ideology and Economic Progress', World Politics, Vol. XII (April, 1960).
- MANDELBAUM, S.J., 'A Complete General Theory of Planning is Impossible', Policy Sciences, Vol. 11, No. 1 (August 1979), 59-71.
- MARENIN, O., 'National Service and National Consciousness in Nigeria', The Journal of Modern African Studies, 17, 4 (1979), pp.629-54.
- MARRIS, P., 'The Social Barriers to African Entrepreneurship', Journal of Development Studies (Oct. 1968), pp.29-38.
- MAY, R.S., 'Direct Overseas Investment in Nigeria : 1953-63', Scottish Journal of Political Economy, Vol. 12 (1965), 243-266.
- ✓ MEADOWS, P., 'Models, Systems and Science', American Sociological Review, Vol. 22, No. 1 (Feb. 1957), pp.3-9.
- ✓ MELTSNER, J., 'Political Feasibility and Policy Analysis', Public Administration Review, Vol. 32 (1972), pp.859-67.
- MILLS, C.A., 'Transnational Corporations, Transfer of Technology and Prospects for a "Fair Deal" for the Third World', Africa Development, Vol. 2, No. 2, April-June, 1977.
- MITNICK, B.M., 'A Typology of Conceptions of the Public Interest', Administration and Society (May 1976), pp.5-28.
- MORAWETZ, D., 'Employment Implications of Industrialization in Developing Countries : A Survey', Economic Journal (Sept. 1974).

- ✓ NACHMIAS, D., 'The Role of Evaluation in Public Policy', Policy Studies Journal, 8 (Special Issue, 1980).
- ✗ NADEL, M.V. 'The Hidden Dimension of Public Policy : private governments and the policy-making process', Journal of Politics (Feb. 1975), pp.2-34.
- NAFZIGER, E. Wayne, 'A Reconsideration of "Capital Surplus" in Nigeria', Nigerian Journal of Economic and Social Studies, X, No.1 (March 1968), 111-6.
- " 'Entrepreneurship, Social Mobility and Income Redistribution : A Case Study of Industrialists in Visakhapatnam, South India', Unpublished Manuscripts, Honolulu, 1976.
- ✓ NAGEL, S. & NEEF, M., 'Finding an Optimum Choice, level or Mix in Public Policy Analysis', Public Administration Review (Sept.-Oct.1978), 404-412.
- ✓ NEIMAN, M., 'Analogues and Policy Analysis : An Alternative Strategy', American Politics Quarterly (Jan. 1977), 3-26.
- NELSON, R.R., 'LDC's; Technology Transfer and Adaptation; the Role of Indigenous Science Community', Economic Development & Cultural Change, Vol. 23, No. 1 (1974), pp.61-77.
- NWOSU, E.J., 'Some Problems of Appropriate Technology Transfer', Developing Economies, Vol. 13, No. 1 (1975), pp.82-93.
- NYE, J.S., 'Multi-national Corporations in World Politics', Foreign Affairs, Vol. 53, No. 1 (Oct. 1974).
- ONI, Ola, 'Development and Features of the Nigerian Financial System - A Marxist Approach', Nigerian Journal of Economic and Social Studies, VIII, No. 3 (Nov. 1966), 383-402.
- ONIMODE, B., 'Economic Development and Class Struggle in Nigeria', NJESS (1978).
- OSOBA, S.O. 'Ideological Trends in the Nigerian national liberation movement and the problems of national identity, solidarity and motivation 1934-65 : A Preliminary assessment', Ibadan, 27 (Oct.1969), pp.26-38.
- " 'The Deepening Crisis of the Nigerian National Bourgeoisie', Review of African Political Economy, 13 (May-August,1978), 63-77.
- PAPANEK, G.F., 'The Development of Entrepreneurship', American Economic Review, LIII, No.2 (May 1962), 46-58.
- ✓ PETERS, B.G., 'Public policy, socio-economic conditions and the political system : a note on their developmental relationship', Polity 5 (Winter 1972), pp.277-284.
- PHILLIPS, C.S., 'Nigeria's New Political Institutions, 1975-79', The Journal of Modern African Studies, 18, 1 (1980), pp.1-22.
- PICKETT, J. and McBAIN, N.S., 'Footwear Production in Ethiopia : A Case Study of Appropriate Technology', Journal of Modern African Studies, 13 (Sept. 1975), 415-27.
- PITT, D.C., 'The End of Bureaucracy : The Beginning of Ideology?', Public Administration Bulletin (Dec. 1979), 4-19.
- POPHAM, G.T., 'Government and Smoking : Policymaking and Pressure Groups', Policy and Politics, Vol. 9, No. 3 (1981), 331-47.
- POWER, J.A., 'Import Substitution as an Industrialization Strategy', Philippine Economic Journal, No. 10 (Second Semester).

- X RAKOFF, S. & SCHAFFER, G., 'Politics, policy and political Science : theoretical alternatives', Politics and Society, 1 (Nov. 1970) 51-57.
- RITTELL, W.J. & WEBBER, M.M., 'Dilemmas in a General Theory of Planning', Policy Sciences, Vol. 4 (1973) pp.155-69.
- ROGOWSKI, R. 'Rationalist Theories of Politics : A Midterm Report', World Politics, Vol. XXX, No. 2 (Jan. 1978), pp.296-323.
- ROSENBAUM, W.A., 'The Paradoxes of Public Participation', Administration and Society (Nov. 1976), 355-83.
- ✓ ROSENTHAL, R.S. & LEVINE, E.S., 'Case Management and Policy Implementation', Public Policy, Vol. 28, No. 4 (Fall 1980), pp.381-413,
- ✓ SALAMON, L.M. 'The Time Dimension in Policy Evaluation : The Case of the New Deal land-reform Experiments', Public Policy (Spring 1979), 129-183.
- SCHAEFER, G.F., 'A General Systems Approach to Public Policy Analysis', Policy and Politics, Vol. 2, No. 4 (June 1974), pp.331-346.
- " 'Politics, Policy and Political Science : Theoretical Alternatives', Politics and Society, 1 (1970), 51-77.
- SCHATZ, Sayre P., 'Aiding Nigerian Business : The Yaba Industrial Estate', Nigerian Journal of Economic and Social Studies, IV, No. 2 (July 1964), 199-217.
- SCHATZ, S.P. 'Nigeria's First National Development Plan (1962-68) : An Appraisal', Nigerian Journal of Economic and Social Studies, V, No. 2 (July 1963), 221-35.
- SCHATZ, S.P. & EDOKPAYI, S.I., 'Economic Attitudes of the Nigerian Businessmen', Nigerian Journal of Economic and Social Studies, IV, No. 3 (Nov. 1962), 257-68.
- ✓ SCHULMAN, P.R., 'Nonincremental policymaking : Notes towards an alternative paradigm', American Political Science Review (Dec. 1975), 1354-70.
- SEERS, D., 'The Role of Industry in Development : Some Fallacies', Journal of Modern African Studies (Dec. 1963).
- ✓ SHARPE, L.J., 'The Social Scientist and Policy-making : Some Cautionary Thoughts and Transatlantic Reflections', Policy and Politics, Vol. 4, No. 2 (Dec. 1975), pp.7-34.
- SHAW, T.M. & FAJEHUN, O., 'Nigeria in the World System', Journal of Modern African Studies, 18, 4 (1980), 551-73.
- SHAW, T.M., 'Beyond Neo-Colonialism : Varieties of Corporatism in Africa', Journal of Modern African Studies, 20, 2 (1982), pp.239-61.
- SHENTON, R.V. & WATTS, M., 'Capitalism and Hunger in Northern Nigeria', Review of African Political Economy, 15 (1980).
- SHIVIJI, I.G., 'Tanzania : The Silent Class Struggle', Tanzanian Studies, No.2.
- SINGH, A., 'Basic Needs Approach to Developments Vs. New International Economic Order : The Significance of Third World Industrialization', World Development, Vol. 7, No. 6 (1979), pp.585-606.

- SKLAR, R.L., 'Contradictions in the Nigerian Political System', Journal of Modern African Studies, 3:2 (1965).
- SMITH, A.R., 'Developments in Manpower Planning', Personnel Review, Vol.1, No. 1 (Autumn 1971), pp.44-54.
- ✓ SMITH, G., and MAY, D., 'The Artificial Debate between Rationalist and Incrementalist Models of Decision Making', Policy and Politics Vol. 8, No. 2 (April 1980), pp.147-161.
- SOLESBURY, W., 'Strategic Planning : Metaphor or Method?', Policy and Politics, Vol. 9, No. 4 (1981), 419-37.
- SOLOW, M.R., 'A Contribution to the Theory of Economic Growth', Quarterly Journal of Economics, 70 (Feb. 1956), pp.65-94.
- SPINZARK, E., 'African Traditional Socialism : A Semantic Analysis of Political Ideology', Journal of Modern African Studies, 11, 4 (1973), 629-47.
- ✓ STASSEN, G.H., 'Individual Preference Versus Role-Constraint in Policy-Making : Senatorial Response to Secretaries Acheson and Dulles', World Politics, Vol. XXV, No. 1 (Oct. 1972), pp.96-119.
- STOLPER, Wolfgang F., 'The Main Features of the 1962-68 National Plan', Nigerian Journal of Economic and Social Studies, IV, No. 2 (July 1962), 85-91.
- ✓ STRAUCH, R.E., 'Squishy Problems and Quantitative Methods', Policy Sciences, Vol. 6 (1975), pp.175-84.
- ✓ " 'A Critical Look at Quantitative Methodology', Policy Analysis , Vol. 2, pp.121-44 (1976).
- STREETEN, P., 'Frontiers of Development Studies : Some Issues of Development Policy', Journal of Development Studies (Oct. 1967).
'Industrialization In A Unified Development Strategy', World Development Vol. 3, No. 1 (Jan. 1975).
- TERIBA, O., 'Financing Indigenization', 9 Quarterly Journal of Administration (1975), 159-76.
- TURNER, T., 'Two Refineries : a Comparative Study of Technology Transfer to the Nigerian Refining Industry', World Development, Vol. 5, No. 3(March 1977), pp.235-56.
'Multinational Corporations and the Instability of the Nigerian State', 5 Review of African Political Economy (1976), 63-79.
'The Transfer of Oil Technology and the Nigerian State', Development and Change, Vol. 7, No. 4 (1976), pp.353-390.
- USORO, E.J., 'Government Policies, Politics and Industrial Strategy in Nigeria', Nigerian Journal of Economic and Social Studies, Vol. 16, No.2, (July 1974), pp.243-53.
- UNCTAD, 'Technological Dependence : Its Nature, Consequences and Policy Implications', Africa Development, Vol.2, No. 2 (1977).

- VICKERS, G., 'Systems Analysis : A Tool Subject or Judgement Demystified?', Policy Sciences 14 (1981) 23-29.
- X WITERITTI, J.P., 'Politics, Science and Public Policy', Journal of Political Science, 3 (Spring 1976).
- ✓ " 'Policy Analysis in the Bureaucracy : An Ad Hoc Approach', Public Administration Review, Vol. 42, No.5 (Sept./Oct. 1982), 466-74.
- WACHS, M., 'Ethical Dilemmas in Forecasting for Public Policy', Public Administration Review, Vol. 42, No.6 (Nov./Dec. 1982), 562-7.
- WATERMAN, P., 'The Labour Aristocracy in Africa : Introduction to a debate', Development and Change, VI, 3, 1975.
- WHITING, A.S., 'The Scholar and the Policy-Maker', World Politics, Supplement, Vol. XXIV (Spring, 1972), 229-47.
- ✓ WILDAVSKY, A., 'The Political Economy of Efficiency : Cost-Benefit Analysis, Systems Analysis and Program Budgeting', Public Administration Review, XXVI : 4 (Dec.1966).
- ✓ WILLIAM, B.A., 'Beyond "Incrementalism" : Organization Theory and Public Policy', Policy Studies Journal (Summer 1979), 683-689.
- ✓ WILLIAMS, A., 'Cost-Benefit Analysis : Bastard Science? and/or Insidious Poison in the Body Politick?', Journal of Public Economics, Vol. 1 (1972), pp.199-225.
- ✓ YOUNG, K., '"Values" in the Policy Process', Policy and Politics, Vol. 5, No. 3 (March 1977), pp.1-22.

OFFICIAL PUBLICATIONSAJAKUTA STEEL COMPANY LTD.

General Information on Ajakuta Steel Project, ASC, May 1981.

CENTRAL BANK OF NIGERIA

Annual Reports and Statement of Accounts, 1969-1981.

Economic and Financial Review, 1976 and 1979.

CENTRE FOR MANAGEMENT DEVELOPMENT

Directory of Management development Programme in Nigeria, 1982.

A Management Research Agenda for Nigeria, 1982.

COMPANIES DECREE 1968FEDERAL GOVERNMENT BUDGET IN BRIEF - FISCAL YEAR 1982.FEDERAL INSTITUTE OF INDUSTRIAL RESEARCH, OSHODI, LAGOS

FIIRO Today, 2nd edition, 1981.

FEDERAL GOVERNMENT PRESS

The Constitution of the Federal Republic of Nigeria (1979).

Nigerian Industrial Policy and Strategy : Guidelines to Investors (1980).

National Policy on Education (1981).

FEDERAL MINISTRY OF INDUSTRIES

Incentives to Invest in Nigeria (Lagos, 1981).

Industrial Development Centres in the Services of Small-Scale Industries.

Industrial Training Fund, Policy Statement No.1, Training Policy
(Lagos, 1973).

Joint-Venture Enterprises.

NIS, First Decade of the Nigerian Standard Organisation 1971-1981
(Enugu).

Small-Scale Industries Credit Schemes.

FEDERAL MINISTRY OF ECONOMIC DEVELOPMENT (Central Planning Office)

Third National Development Plan 1975-80, Vols. I & II.

FEDERAL MINISTRY OF INFORMATION (Printing Division)

Statement on Industrial Policy Sessional Paper No. 6 of 1964.

First National Development Plan 1962-68 (Lagos, 1962).

FEDERAL MINISTRY OF NATIONAL PLANNING (National Planning Office)

Fourth National Development Plan 1981-85, Vols. I & II.

FEDERAL MINISTRY OF TRADE

Procedure for Establishing Business in Nigeria.

GOVERNMENT PRINTER

Manual of Export Incentives, Nigeria
Export Promotion Council, Lagos.

Nigerian Enterprises Promotion Decree, 1972 and 1977 (Lagos).

Reports of the Constitutional Drafting Committee, Vols. I & II(1977).

Reports of the Tribunal of Inquiry into Activities of the Trade
Unions; and Federal Government Views on the Report (Lagos, 1977).

Second National Development Plan 1970-74 (Lagos).

GOVERNMENT VIEWS ON THE REPORT OF THE INDUSTRIAL ENTERPRISES PANEL (Lagos 1076).MINISTRY OF INDUSTRIES

Use your Opportunities for Starting a Small Industry (Lagos).

NATIONAL MANPOWER BOARD (Lagos 1980).

Study of Nigeria's Manpower Requirements, 1977.

NIGERIAN EXPORT PROMOTION COUNCIL

Nigerian Export Director, Maiden Issue, 1981-82.

UNONGO, P.I. (First Minister of Steel)

'Steel is Power' - text of a lecture 'Steel Development and Nigeria's
Power Status' July 24, 1981, ASC Publication.

PERIODICALSAFRISCOPE

'Nigeria's Iron and Steel, A Dream Come True', Vol.12, No.2 contains a supplement on Nigeria's Iron and Steel Industry, sponsored by the Ministry of Steel Development.

DAILY SKETCH

'How to Develop Our Technology', August 5, 1981.

DAILY TIMES OPINION

'Frustrating Investors', September 16, 1982.

THE GUARDIAN

'Nigeria : A Special Report', November 7th and 14th, 1983.

INDUSTRY NEWS

'Smuggling and Manufacturing Industry in Nigeria', Vol.1, No.1, July, 1982.

THE MANUFACTURER

Journal of the Manufacturers Association of Nigeria, various issues.

NATIONAL CONCORD

'ANAMMCO and Transfer of Technology', August 28, 1982.

'Technology Crisis : The Way Out', October 6, 1982.

NEW NIGERIAN

September 17, 1982 'University of Technology and Technological Change'.

NIGERIAN JOURNAL OF TECHNICAL EDUCATION

Vol.1 No.1 September 1980.

SUNDAY PUNCH

'Self-made Solar genius at tether's end', September 12, 1982.

WEST AFRICA

'When Technology Hampers Development', October 22, 1971.

'A Practical Approach to Technology', February 16, 1981.

WHO MAKES WHAT IN NIGERIA

1981 Guide to Made-in-Nigeria Goods.